

TELEVISION INQUIRY

HEARINGS
BEFORE THE
COMMITTEE ON
INTERSTATE AND FOREIGN COMMERCE
UNITED STATES SENATE
EIGHTY-FOURTH CONGRESS
SECOND SESSION
PURSUANT TO

S. Res. 13 and 163

AUTHORIZING INVESTIGATIONS OF CERTAIN PROBLEMS
RELATING TO INTERSTATE AND FOREIGN COMMERCE

(Including testimony on S. 825, by Mr. Bricker, to authorize the
Federal Communications Commission to establish rules and regula-
tions and make orders with respect to networks and their activities)

FEBRUARY 27, 28, 29, MARCH 2, 14, 15, 16, 26, 27, 28,
MAY 14, 15, JUNE 11, AND JULY 17 AND 18, 1956

WITHDRAWN
FROM
UNIVERSITY OF PENNSYLVANIA

PART II

UHF-VHF ALLOCATIONS PROBLEM

Testimony of Public and Industry Witnesses

Printed for the use of the Interstate and Foreign Commerce Committee



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II

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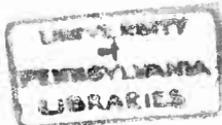
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Part II, UHF-VHF Allocations Problem—testimony of public and industry witnesses.

Part III, Subscription Television.

Part IV, Network Practices.

TELEVISION INQUIRY

(UHF-VHF Allocations Problem)

PART II: TESTIMONY OF PUBLIC AND INDUSTRY WITNESSES

MONDAY, FEBRUARY 27, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10:10 a. m. in room G-16, United States Capitol, Senator Warren G. Magnuson (chairman) presiding.

Present: Senators Magnuson, Pastore, Ervin, Thurmond, Bricker, Schoepfel, and Potter.¹

The CHAIRMAN. The committee will come to order. Again, because of the number of witnesses, we will start without certain Senators who will ultimately be here.

The first witness is Mr. George Storer. We are glad to hear from you at this time. Do you have a prepared statement? Do you wish to read that?

Mr. STORER. Yes, Senator, I have a very brief statement.

The CHAIRMAN. We will be very glad to hear from you.

STATEMENT OF GEORGE B. STORER, PRESIDENT, STORER BROADCASTING CO., MIAMI, FLA.

Mr. STORER. Incidentally, if I don't speak loudly enough—I have a hearing aid on these glasses—please tell me and I will speak up.

The CHAIRMAN. Several of the people in the back are interested in your testimony, and it is easy for us to hear, but maybe they cannot hear as well back there.

Mr. STORER. In the first place, I want to say that we appreciate the privilege of being back here again. My name is George B. Storer. I am president and founder of Storer Broadcasting Co. Our company has owned and operated radio and television stations since 1928, and presently it owns and operates 5 VHF stations and 2 UHF stations.

Our business is the ownership and operation of these stations, and our radio stations. Each station is operated as an integral part of its local community, creating local programming, servicing local advertisers, and meeting the needs of local public service organizations. Our company does not link its own stations together in a company net-

¹ Staff members assigned to this hearing: Kenneth A. Cox and Wayne T. Geissinger, special counsel; Nicholas Zapple, communications counsel.

work. We have affiliation agreements with the national networks in most markets, but we do not own or operate any network organization. We are not connected with the manufacturing part of the broadcasting industry, except insofar as we use its products. So much for the description of Storer Broadcasting Co.

The CHAIRMAN. The record ought to show what VHF stations you have.

Mr. STORER. We have Detroit, Toledo, Cleveland, Atlanta, and Birmingham, Ala.; and the UHF's are in Portland, Oreg., and Miami, Fla.

The CHAIRMAN. Now they are operated, as I understand, as a corporation?

Mr. STORER. I couldn't quite hear you, sir.

The CHAIRMAN. Is this a corporation that operates these seven stations?

Mr. STORER. Yes, sir; it is. The corporation has 4,000 stockholders, and all of the management own a substantial part of the corporation.

The CHAIRMAN. It is one of the pioneer companies in the radio broadcasting and television field?

Mr. STORER. Yes, sir.

The CHAIRMAN. But you are here today to testify, as I understand it, generally—and you will read this testimony—on the UHF experience of the corporation?

Mr. STORER. Yes, sir; that is right.

The CHAIRMAN. Are you doing all right with the VHF?

Mr. STORER. Yes, sir.

I have read with great interest the transcript of the prior hearings held before this committee as part of its television inquiry, and I realize fully that the committee members are very well informed on the problems facing the television industry. My only reason for appearing here, at the committee's request, is that I feel that my company's actual experience in the operation of local stations in diverse communities has given it some knowledge that may be of value to the committee.

For 28 years we have participated in the development of radio broadcasting; and for 8 years, since July 1948, we have actually operated television stations. We acquired UHF station KPTV, Portland, Oreg., in November 1954, and UHF station WGBS-TV, Miami, Fla., in December 1954, pursuant to commitments made to the Federal Communications Commission in the proceedings in which the Commission relaxed its multiple-ownership rules, effective in October 1954, permitting multiple owners, including ourselves, to acquire two UHF stations in order to aid in the development of the UHF band.

We have gone all out in the installation at WGBS-TV and KPTV of the best equipment available at the present stage of the art. At WGBS-TV, Miami, we have installed a 1,000-foot tower, equal in height to the tower of the VHF station already in the market. Our station WGBS-TV now operates with 185,000 watts visual power, and provides a very satisfactory, if not superior, signal to the entire area, including coverage about 70 miles south of Miami.

I want to say in passing that we found that tower height is of the utmost importance, even more so than power. We learned from this installation that, given a high-tower, high-power operation, a UHF

station in an area of flat terrain and constant foliage conditions, can provide a service equal to VHF service, and even better than VHF with respect to manmade interference—manmade interference being particularly road signs, neon signs, and trucks, ignition static, and that sort of thing.

We have reported to the Commission that in areas of flat terrain such as Miami—where the highest hill is 33 feet above mean sea level—grade B quality service extends to the 500-microvolt-per meter contour rather than to the 1,600-microvolt-per meter contour as specified in the Commission's 1952 rules, which in effect makes our coverage equal to that of the VHF station in the area. We have over \$1,300,000 invested in WGBS-TV, in equipment and operating losses.

I might say in passing that the operating losses at the end of the year were about \$272,000, as near as I recall. So the rest is in equipment. The tower, due to the hurricane situation in Miami, and the land on which it stands has cost us an aggregate of \$330,000.

Senator SCHOEPEL. Was that this last year?

Mr. STORER. Yes, sir. Our investment in Miami includes very substantial sums spent for improvement in programing, operating a conversion project to secure the accelerated conversion of receivers unable formerly to receive UHF signals, and appropriate promotion and advertising.

The CHAIRMAN. What do you mean there—a conversion project? What do you mean by that?

Mr. STORER. Senator, we soon found that it took a lot of promotion and effort working with the dealers to get people to convert from VHF to UHF. It just didn't happen. You had to really put on a terrific campaign. So we set up what we call project 23, which was to get people to convert. We employed technical men, promotion men, and an advertising agency, and put on a campaign in all mediums that we felt was effective in the Miami area, to tell the people of the programs that they could get on WGBS-TV.

We accelerated the conversion very rapidly by doing that. If we hadn't done it, it would have remained rather static.

The CHAIRMAN. In other words, you went out on your own volition and started a so-called sales campaign to get people to convert their sets?

Mr. STORER. Yes, sir. We divided the area up into districts, and we had various technical assistants go around to the dealers, and we created banners promoting the sale of converters and/or all-channel sets.

The CHAIRMAN. The retail dealers?

Mr. STORER. Yes, sir.

The CHAIRMAN. What percentage have converted?

Mr. STORER. Above 85 percent.

The CHAIRMAN. In the Miami area?

Mr. STORER. Yes, sir. I noticed in one of the papers there the other day it said 90.1 percent. We don't believe it is quite that high.

The CHAIRMAN. What was it when you started?

Mr. STORER. Roughly 40 to 45 percent.

The CHAIRMAN. So the ability to receive the U signal has increased by 40 percent in the Miami area?

Mr. STORER. Yes, sir; that is true.

The CHAIRMAN. How long a period of time did this take?

Mr. STORER. Twelve months.

The CHAIRMAN. But in about a year, with your campaign and other factors, you were able to increase that up to between 85 and 90 percent?

Mr. STORER. Yes, sir.

The CHAIRMAN. So that only maybe about 10 or 15 percent of the sets in the Miami area now are not all channel?

Mr. STORER. Yes, sir. I might say in passing that currently no new sets are sold in Miami that are not all-channel receivers. That we find is the 100-percent answer from every dealer we talked to.

The CHAIRMAN. I want to get this straight: All the dealers in Miami now sell all-channel sets; is that what you say?

Mr. STORER. Yes, sir.

The CHAIRMAN. That is all they sell?

Mr. STORER. Yes, sir; they have some old second-hand sets from time to time that they sell at low prices, which are not all-channel receivers, but most of those are now being sent to other points. They are exported—some to South American countries and Cuba. Generally speaking, the receiver problem no longer bothers us very much down there.

The CHAIRMAN. Is that due to the public demand or to dealer policy, or both?

Mr. STORER. It is a combination of both. You have to waken the public to the fact that they are missing a lot of good programing. That is the first order of business. Then after you have done that, you have to work with the dealers and sell them the idea that here is a substantial new business area that they can avail themselves of. That takes quite a bit of doing at first.

The CHAIRMAN. I suppose you go into that later in your statement?

Mr. STORER. Yes; I do.

The CHAIRMAN. You are affiliated with a network?

Mr. STORER. NBC. Our sales staff in New York worked with the National Broadcasting Co. with which WGBS-TV is affiliated, to secure additional network advertisers, so that we were able to increase our network programing to approximately 60 percent of the basic NBC network schedule.

We had hoped that NBC would place us on its "must-buy" list in the same manner as WFVJ, the Miami VHF station, is on the CBS television network list, but they felt that due to advertiser resistance they could not see their way clear to do this, with which we could have no quarrel.

The CHAIRMAN. I don't understand what you mean by "advertiser resistance" there. You might enlarge upon that.

Mr. STORER. As I believe was reported in the—

The CHAIRMAN. First of all, what is a "must-buy" list, so the record will be clear?

Mr. STORER. "Must-buy" means the list of stations which an advertiser must buy at certain times of the day to get on the network, so to speak.

The CHAIRMAN. A certain number of stations?

Mr. STORER. Yes, sir.

The CHAIRMAN. I think that figure is in the record.

Mr. STORER. About 55, I think it was.

The CHAIRMAN. What about the advertiser resistance? That is because of what?

Mr. STORER. The advertiser very properly said that he didn't want to add a station which only serve a half, we will say, of the population in the area. NBC cooperated to the fullest extent. We have absolutely no quarrel with them. Their sales department were very active in working with ours. Yet we did find that there was a tremendous resistance from the advertisers and agencies to adding the station.

The CHAIRMAN. Go ahead, sir.

Mr. STORER. The net result, however, has been to prove that local and network advertisers, and some national advertisers, can be persuaded to buy UHF and do learn that a UHF picture is as good a sales medium as a VHF picture, provided the UHF station has a high-tower, high-power operation. This experience enables us to conclude that if enough UHF stations throughout the country were used by the advertisers, in competition with not more than one VHF station, it would be possible ultimately to attain advertiser recognition of the UHF service.

In addition, our Miami experience demonstrates that UHF is highly acceptable to the viewing public. In the 12-month period from December 1954 to November 1955 the improved service of WGBS-TV and the increased power of the other UHF station in the area, which carries ABC network programs, resulted in all-channel tuner and UHF converter sales totaling 121,241. So that at the present time in excess of 85 percent of the television receivers in the area can receive the two UHF stations.

At our UHF station in Portland, Oreg., we increased the power to 1 million watts effective radiated power and installed a new tower on the hill above the city. As a matter of fact, our total investment in equipment is \$1,172,000, which includes color equipment. Portland, of course, lies in a valley surrounded on two sides by high mountains, with a high hill in the middle of the city, on which our antenna is located.

In the outlying areas there are some other hills where our UHF station has a serious shadow, or fill-in, problem. Despite the fact that KPTV has the best tower location and 1 million watts power, because of the inherent difficulty UHF signals have in filling in shadow areas, there are some few areas where the signal of KPTV does not compare favorably with the signal received from the low-band VHF station in Portland. The comparison with the high-band VHF station is not so bad.

The CHAIRMAN. There is another channel that has been granted in Portland?

Mr. STORER. Yes, sir.

The CHAIRMAN. Is that in the high or the low?

Mr. STORER. That is in the high. That is channel 8. There is channel 8 and I believe channel 12 in the high band, and channel 6 in the low band. Parenthetically, it should be noted that low-band VHF stations on channels 2 to 6 enjoy better fill-in characteristics than high-band VHF stations on channels 7 to 13.

Thus we have learned from our KPTV experience that, at the present time, equipment is not available to make UHF equal to VHF

in areas of rugged terrain—and the same applies to areas of high buildings. In Miami we do not have the building-shadow problem, because the high buildings are so located that shadow areas fall into Biscayne Bay or the Atlantic Ocean.

Our Portland experience has also led us to the conclusion that high-power UHF satellite stations may well provide the necessary relief for UHF stations in rugged terrain.

The CHAIRMAN. Tell us about that. What do you think you can do in an area like Portland on satellites?

Mr. STORER. Sir, the proposal or the remedy which we have in mind is to situate a second satellite of considerable power on a separate channel so that we wipe out the shadows. In other words, over on one side of the valley we have our present UHF station. Out a ways you will find some hills and behind those hills the shadow areas are very pronounced. In those areas down deep—

The CHAIRMAN. Is that across the river?

Mr. STORER. That is across the river.

The CHAIRMAN. You go across the river and take one of those hills over there and get on top of that?

Mr. STORER. Yes.

The CHAIRMAN. So you would have two towers?

Mr. STORER. That is right.

The CHAIRMAN. One on one side of the river and the other on the other side?

Mr. STORER. Yes, that is right. And to show you, if you will bear with me a moment—

Senator SCHOEPPPEL. On the same channel?

Mr. STORER. No, not on the same channel.

Senator SCHOEPPPEL. Different channels?

Mr. STORER. You have to take a different channel. If you were on the same channel, the interference would be so bad it just would not be practical.

If you will bear with us a moment, Mr. Clemans X. Castle, who is our director of engineering, had these shadowgraphs prepared in Portland and they show very clearly what happens.

Mr. CASTLE. The photograph was taken of the basic scale relief map about 10 by 16 feet. We put a very small light at an elevation above the map, which corresponds to our present 500-foot tower. You will notice on this there are areas in here that are in very black shadow.

The CHAIRMAN. Here is your river?

Mr. CASTLE. Yes, that is the Columbia River, and there is also the Willamette River there which runs along at the foot of the hill.

The CHAIRMAN. We will look at these. Let Mr. Storer go on.

Mr. CASTLE. If you will notice, these are from three different locations. Therefore the shadows in the three locations do not overlap completely. In other words, it is floodlighted.

(The three photographs referred to will be retained in the committee files.)

The CHAIRMAN. All right. Go ahead, Mr. Storer.

Mr. STORER. Thank you sir. We believe that it will be possible in Portland to construct a satellite station, using power on the order of 200,000 watts, which can be so located that most, if not all, of the

shadow areas can be served adequately by either the main transmitter or the satellite transmitter of the station.

We are preparing an application to the Federal Communications Commission requesting permission to construct such a satellite on an experimental basis, but carrying the regular programs of KPTV. In connection with that application, we will request, if necessary, that the Commission waive or suspend its multiple ownership and overlap rules. We believe that this experiment holds great promise of providing a realistic solution to the UHF coverage problem in many areas. This experiment will cost our company about \$150,000.

The CHAIRMAN. Would you say that that is the average price of the satellite?

Mr. STORER. Oh, no, sir. Portland being a rather large community, and with the extremely rugged terrain, we have to use a higher power in Portland than you would in other areas.

Our experience in Miami and Portland also bears on the questions of the cost of equipping UHF stations and of maintaining them in operation, which have been considered by this committee. It is true that both VHF and UHF studios, transmitting and antenna plants cost a lot of money—somewhere between \$500,000 and \$1,500,000, depending on the type of installation.

When the size of the investment is considered, the cost of a UHF station is not very substantially higher than that of a comparable VHF station. At the present time, there is no difference in the cost of studios and studio equipment; there is no difference in the cost of land and tower; and UHF transmitters and antennas for full-power operation cost about \$35,000 more than similar equipment for VHF high-band stations (channels 7-13).

With respect to operating costs, UHF transmitting tube costs are about double that of VHF, which means an additional expense of about \$1,500 to \$2,000 per month for running a high-power UHF station for a full 17-hour daily operation. Other operating expenses are about the same for UHF and VHF.

Experience with similar problems in VHF, in the years 1948 to 1952, indicates that UHF costs of transmitting equipment and tubes will go down, as the manufacturers gain more experience and amortize their developmental expenses. In my personal opinion, the additional cost of UHF should not be used as a reason for not utilizing the UHF band to the fullest extent possible.

I might say in passing that in Toledo, where we operated on channel 13, we had terrific difficulty when we first went on the air with our tubes. We burned up tubes about every week or every 2 weeks in the final stages of that transmitter. But ultimately the manufacturers were able to eliminate that difficulty. The higher the frequency, the more difficulty you have, but we believe there is considerable hope, based on that experience.

The CHAIRMAN. What you say here, in effect, is that, generally speaking, with technological developments and better know-how and manufacture, the cost of VHF and UHF may vary back and forth, but nevertheless it could be practically the same for development of the station?

Mr. STORER. Yes, except there is a question of power involved which has some costs.

The CHAIRMAN. You mean the necessity for more power?

Mr. STORER. Yes. I wouldn't want to go so far as to say—

The CHAIRMAN. Out in Portland that would be cheaper than power in Toledo, wouldn't it?

Mr. STORER. Yes, sir, I think so.

Now, turning to the economic and allocation problems which face this committee, the Commission, and particularly the UHF pioneers who are losing money from operations and who face the loss of their entire investment.

First, considering the VHF situation, we recognize that VHF stations are superior to UHF both in propagation characteristics and in the ability of receivers to accept signals. This country deserves the best possible television system, and to attain this goal, the VHF band must be preserved without degrading the service VHF stations can render.

VHF stations are superior in providing rural service in a large part of the United States, and we believe that in Zones I and II the 170-mile and 190-mile cochannel separations should be maintained in order to provide this rural service. VHF stations are superior in providing close-in service in rugged terrain, such as Portland, Oreg., and Pittsburgh, and they should be maintained to provide this service.

Likewise, VHF stations are superior in providing service behind high buildings and in areas of rolling terrain and high trees, and they should be maintained in cities like New York, Chicago, and Detroit, to provide the best possible service to the cities, their suburbs, and the outlying rural areas.

We also believe, and I don't see how this can be disputed, that UHF stations are essential to provide room for future growth of the television system. In the cities and areas where multiple television stations can be supported economically, there are too few VHF assignments available to allow for future expansion in the number of stations, unless the UHF band is preserved.

From Commissioner Rosel H. Hyde's testimony before this committee, it seems apparent that there is no real chance of obtaining additional VHF channels from the Government or other non-broadcast services. Further, additional VHF stations cannot be created by reducing cochannel separations, unless at the same time the valuable propagation advantages of the VHF band are sacrificed and rural service is abandoned in many areas.

There has been some talk of obtaining two VHF channels from the FM band. This is a problem that the Commission can best evaluate, for they must determine whether the public interest would be best served by seriously reducing the frequencies available for FM, in order to create two new VHF channels.

But even if two new VHF channels are taken from FM, they would be insufficient and inadequate to provide any substantial number of stations. By preserving the present UHF stations that are now on the air, more stations could be saved than could be created from two new VHF channels.

The CHAIRMAN. Mr. Storer, you still have the same set conversion problem anyway, regardless?

Mr. STORER. Yes, sir.

The CHAIRMAN. In creating new VHF bands, you have the same set problem as you have with the UHF's.

Mr. STORER. Yes, sir; that is truly substantial, particularly in an area currently served by a multiple group of VHF stations. You have to persuade the public to spend that money, and if they are getting 2 or 3 or 4 good services—good program services—today, I could tell you that in my opinion it will take an awful long while, and I seriously doubt whether they will ever get converted.

Now what can be done to alleviate the present problems and provide a sound foundation for the future growth of television? It is apparent that there is no panacea, and no simple solution for all the problems. But it seems to us that there is so much to be gained, and so little to lose, from preserving the UHF band for the television service, that steps should be taken at once to accomplish this objective.

Storer Broadcasting Co.'s proposal to the Federal Communications Commission to save the UHF band for television is contained in its Reply Comments dated February 1, 1956, in docket No. 11532. Copies of this document have been distributed to the committee members, and I would like to request that the entire document be made part of the record of this hearing.

The CHAIRMAN. We will make it a part of the record in the sense that it will be kept in the committee's files in connection with this inquiry. We cannot put these maps and things in the record itself. But we will take advantage of the document, its tables and things of that kind, by retaining them in our files.

Mr. STORER. Thank you, sir.

[Document entitled "Reply Comment" of Storer Broadcasting Co., in Federal Communications Commission docket No. 11532, dated February 1, 1956, will be retained in the committee files.]

Mr. STORER. Briefly, our proposal is that the Commission adopt a policy of deintermixture to provide 6 new UHF-only markets, 8 new markets with UHF plus only 1 VHF, 9 new 3-VHF markets, and 1 new 4-VHF market, as detailed in exhibit A attached to our reply comments.

The CHAIRMAN. Right there, when you talk about the six UHF-only markets, you are suggesting Evansville, Fresno, Madison, Peoria, Corpus Christi, and Springfield?

Mr. STORER. Yes, sir.

The CHAIRMAN. The new one-VHF markets, you are suggesting Hartford—we have heard that name before around here—New Orleans, Miami, Jacksonville, Norfolk, Spartausburg, Beaumont-Port Arthur, and Albany?

Mr. STORER. Yes, sir.

The CHAIRMAN. Then the new three-VHF markets: Davenport, Harlingen, Laredo, Terre Haute, Providence, Tampa, Orlando, Knoxville, and Charleston, S. C.?

Mr. STORER. Yes, sir.

The CHAIRMAN. And a new four-VHF market, St. Louis?

Mr. STORER. Yes, sir.

The CHAIRMAN. Then in your maps you show how that will cover the market areas?

Mr. STORER. Yes, sir.

The CHAIRMAN. In the country?

Mr. STORER. Yes, sir.

This proposal can be adopted by the Commission at once without dislocation of any existing station and without depriving a single person of existing VHF or UHF service because:

First: No change is made in the license of any stations now on the air or authorized, except that proposed VHF stations authorized by recent final hearing decisions in Fresno, Madison, Evansville, Peoria, Miami, and Corpus Christi would be modified to UHF.

The CHAIRMAN. In that case, the Commission, I think, testified that they could take these back?

Mr. STORER. Yes, sir. I comment on that a little later.

The CHAIRMAN. Go ahead.

Mr. STORER. Second: No changes are made in present VHF engineering rules or standards. All VHF changes proposed by Storer comply with the Commission's rules as to cochannel separation and otherwise.

After adopting this proposal, with such modifications as it deems in the public interest, the Commission can then proceed to evaluate at length the possibility of obtaining additional VHF channels, the desirability of reducing cochannel separations, and similar problems; but it can then do so with the assurance that enough UHF stations will stay in existence, so that, during its deliberations, the UHF service will not, like the fabulous dodo bird, become extinct.

Under the Storer deintermixture proposal, a total of 20,765,866 persons will rely on UHF stations for program service, thus, I believe, establishing a strong economic base for survival and growth of the UHF service.

In the markets involved, there are today 4,225,268 UHF television receivers, and numerous stations which I haven't counted. These viewers, receivers, and stations, in my opinion, represent sufficiently large numbers so that the advertiser cannot afford to neglect them. He will be forced to use UHF stations where they can compete effectively, and will learn, therefore, that the UHF service can be, and is, a good television service.

Likewise, manufacturers will be given the incentive to continue the manufacture and development of UHF transmitting and receiving equipment, and ultimately they will solve the major technical problems facing UHF, by providing superpower transmitters and antennas, improved UHF receivers, and economical transmitter tubes.

Under the Storer deintermixture proposal, 25 markets will be established where UHF stations can compete on a fair basis with not more than 1 VHF station. These markets include 8 UHF-only markets, and 17 1-VHF markets, as listed in exhibit C attached to our reply comments.

These basic UHF markets will be supplemented by the numerous other smaller markets in which today many of the UHF stations on the air now defy the maxim that UHF cannot compete with more than one VHF station.

For example, I am informed that WHIZ-TV, Zanesville, Ohio, a UHF station on channel 18, is operating at a small profit, and that WIRK-TV, West Palm Beach, Fla., a UHF station on channel 21, is just about breaking even. WHIZ-TV has no VHF station in its market, but WIRK-TV competes with two local VHF stations.

Incidentally, I understand that in Zanesville, they get service from Columbus, Ohio, from the VHF station. So they do have some competition.

WIRK-TV may have the formula for the UHF-holding operation, since it is able to continue on the air by operating only a few hours a day with a very small staff of 5 or 6 persons.

The CHAIRMAN. What kind of programs do they have? What type?

Mr. STORER. They have films. They have a rather restricted schedule, it is true.

The CHAIRMAN. Apparently they have been able to sell it.

Mr. STORER. They have been able to sell it locally. By keeping their expenses at a very modest figure, they are still in business. It has been quite a surprise to us, frankly, watching it, because there are two VHF's there. One of them on NBC lying to the north of West Palm Beach, and one right in Palm Beach.

The CHAIRMAN. Do they do any local programing at all?

Mr. STORER. Yes; they all program locally.

The CHAIRMAN. Live?

Mr. STORER. Live and film, both. Stations like the WHIZ-TV's and the WIRK-TV's undoubtedly will gain substantial encouragement from the adoption of a deintermixture proposal which demonstrates that the Commission has not sold UHF "down the river." Further, they will be operating as part of a going industry, and will benefit from the promotion and sales activities, and the success stories, of their bigger brothers in the deintermixed markets.

On the other hand, if nothing is done for UHF, these stations would be foolhardy to try to buck the tide of advertiser resistance on a nationwide basis.

Release of certain VHF channels, as the result of deintermixture, also makes their use possible in present 1-VHF and 2-VHF markets, not now served by UHF stations. Thus, under the Storer plan, 9 new 3-VHF markets will be created to provide competitive facilities for the 3 national television networks, and St. Louis will become a 4-VHF market, as set forth in exhibit A attached to our reply comments.

As a result of the deintermixture plan we have proposed to the Commission, in the first 100 television markets—as defined by CBS—3 or more competitive stations will be established in 80 markets. Two VHF stations will remain in only 20 markets, and in 9 of these CBS' own plan does not propose to add additional stations.

We do not propose our plan as a panacea. It evolved from a comprehensive study of the entire country to determine whether UHF stations had a realistic chance of success, provided no more VHF stations went on the air in their markets. We realize that criticism can be leveled at the plan, and it may well be possible to make changes in it that will improve it; but we felt a definite obligation, arising out of 28 years of broadcasting and telecasting, to make a contribution designed to maintain, insofar as possible the UHF service.

After a very thorough consideration of the problem, based on our actual experience in VHF and UHF broadcasting, we feel that it would be contrary to the public interest to abandon UHF at a time

when, as outlined in our reply comments, the major technical problems of UHF are on the verge of solution, and while there still remain on the air sufficient UHF stations to provide a strong base for the development of the service.

We do not view the UHF markets as "islands"; we think they would be UHF strongholds, where UHF could be demonstrated to be a good television service which the advertiser could not afford to ignore.

In our opinion, Miami would be a particularly strong center for demonstrating the potentialities of UHF stations. The terrain characteristics, and the fact that Miami is rapidly developing as a network origination center, would provide the greatest opportunity for proving out UHF, and for convincing the doubters. Incidentally, I realize this is somewhat self-serving, but nonetheless we haven't found anywhere in the United States a better location for a UHF station.

Finally, with respect to the UHF service, we urge that action be taken at once. Whether the UHF service is going to be saved or abandoned, in all fairness to present UHF licensees and pioneers, let them be advised promptly of the final decision, whatever it may be.

Certain members of your good committee have pointed out, if additional VHF stations are permitted to go on the air in many of today's UHF markets, even fewer UHF stations will remain to be saved for the future.

Although we filed our deintermixture proposal with the Commission on February 7 in good faith, in all candor I must say that the recent decision of the court of appeals issued February 14, denying stays of the Madison, Evansville, and Corpus Christi VHF grants makes deintermixture practically moot. Once VHF stations are built in these cities, and in Fresno, Peoria, and Miami, I have grave doubts whether deintermixture could be implemented as a practical matter. It is a serious matter for any Government agency to attempt to delete existing stations and withdraw existing service from the public.

With respect to the operation of UHF stations by the major national networks, Storer Broadcasting Co. believes that networks that take advantage of the liberalization of the five-station limit on television station ownership to obtain UHF stations for themselves have a definite obligation to continue affiliations with UHF stations where it can be shown that no substantial loss of network coverage results from such continued affiliation. We especially want to commend the National Broadcasting Co. for having pursued such a policy of continued affiliation with our Portland UHF station, for without their support it is doubtful that the station could afford to continue on the air.

The CHAIRMAN. Right there, when the new VHF comes on the air, I suppose that there will be a question of policy involved with any network as to what network goes on that station. Isn't that correct?

Mr. STORER. Yes, sir.

The CHAIRMAN. Because unless you get the so-called satellite, the new VHF might be a better service. I don't know.

Mr. STORER. Yes, sir.

The CHAIRMAN. Technically, I mean, engineeringwise.

Mr. STORER. But I must say, Mr. Chairman, in all fairness—

The CHAIRMAN. I mean, here comes the problem, again—that is what I am trying to say. You have got to face up to it again.

Mr. STORER. Yes. But NBC, as recently as within the last 2 weeks, has indicated to us that they will continue with us and assist in developing, if the Commission grants permission for us to try this experiment, a development of the UHF service in Portland.

The CHAIRMAN. Naturally then you would have a better service to offer to any network if you did get the satellite; more nearly competitive, let me say that.

Mr. STORER. A better service than we have now.

Changing to another subject, which is of particular interest to the management personnel of our company, why, by reason of geography—living down in Miami as we do—have to fly continuously in airplanes, we are not sympathetic toward the idea of towers higher than 1,000 feet. We feel that the public safety is more important than the 5 extra miles of coverage for a television station which is gained by going from 1,000 feet to 1,250 feet. In some cases I might say that higher towers offer a very serious hazard. We don't think they are of that importance.

May I express my thanks and appreciation for your consideration in hearing the views of our company. If there are any questions, I would be delighted to answer them.

The CHAIRMAN. I think the counsel has 2 or 3 questions he wants to ask. I want to thank you for the statement. I think it has contributed a great deal to the problem we have in front of us.

I wanted to ask this because you have had a lot of experience in these matters. I might say since last week's hearing, I have inquired of people who have had experience, but it did strike the committee that in all of these cases again, we are getting down to the problem of the set. That is one of the things that causes a great deal of this problem.

It is good to note that in the Miami area, which is a little different and a little easier to handle, which you will admit, than in other areas, you have been able to work this set problem out. But we are coming now to color, and I suppose you would agree with me—or your engineer would, that color sets will gradually drop in cost as they get the know-how, and what is in the tube that Allen testified about—General Electric's development.

What would be your suggestion, as to what we could do, or the Commission or all of us and the manufacturers, now that we are phasing into a new set situation in which I suppose in a few—not too many—months, maybe 2 or 3 years, people will be buying color sets. Networks, I suppose, will be putting on more and more color programs as the sets multiply, and the cost goes down.

Most color sets now, I understand, are all channel.

Mr. STORER. Yes, sir.

The CHAIRMAN. But they could be made color and just VHF, too.

Mr. STORER. Yes, sir.

The CHAIRMAN. And make them maybe a little bit cheaper.

Mr. STORER. A little bit cheaper, probably.

The CHAIRMAN. What would be your suggestion—if you haven't one now I wish you would think about it—how we can now get this thing when it is just budding. There are not too many color sets now, but if we could start this off now whereby the color sets would be all channel, wouldn't it in your opinion help go a long way toward the solution of the thing you are talking about?

Mr. STORER. Yes, sir.

The CHAIRMAN. In other words, we have a chance now to grab it?

Mr. STORER. I suppose that this might be a little arbitrary, but the Federal Communications Commission does set the standards for receivers and/or transmitting apparatus. It might be possible to insist that the color receivers generally be all-channel.

I don't know legally whether that can be done, but if it could be done, that would probably do more to insure the future of UHF than anything.

The CHAIRMAN. The FCC has not said so flatly, but in effect they felt that their authority to deal with this problem as far as the manufacture of sets was concerned, was somewhat vague or nebulous.

If that is true, of course, the place to come is here, to get the authority. Whether or not they would ask for the authority, I don't know. What I am trying to find out from you, from your long experience, is whether or not if this could be done—whether it be done voluntarily or by FCC ruling—wouldn't it go a long way insofar as the future is concerned, and the expansion of television service, to solve our problem?

Mr. STORER. Yes, it would, sir.

The CHAIRMAN. Now, Mr. Storer, we have another little problem, of course, of the tax involved. I am having that explored. Maybe we might find that color sets could be excluded from the excise tax without taking anything much away from the Treasury.

I am sure Mr. Humphrey won't like this, but I think if someone explains to those who are administering these taxes that it would be worthwhile to forego this small amount that may come in to solve a real economic problem that is existing in this big, new, growing industry in this country—would you agree with me on that?

Mr. STORER. I agree with you very much, Mr. Chairman. I doubt seriously whether that idea could be sold, but if it could, it would be a terrific boost.

The CHAIRMAN. Let's take the Treasury. If they really understood what this would do to this real problem—that actually the amount of taxes that may come in on color sets now is small—by helping to get this industry stable and on a basis where it knows where it is going, it might be that in the long run revenues would be added which would amount to more than the excise tax—would amount to a great deal more.

Mr. STORER. Just from the standpoint of income taxes—

The CHAIRMAN. Wages—everything that goes with it. It would seem to me that to let this industry grow like it should and give us really a competitive system in this country, that the Treasury might find itself, after a period of time, with more money than if it insists on an excise tax on the set.

Mr. STORER. I think it would be a very worthwhile objective, and if it could be accomplished it would be fine.

The CHAIRMAN. May I ask you this question: Do you agree with me on this, that if we are going to do something like this, now is the time to do it?

Mr. STORER. Yes, sir. I think everything that has to be done to save UHF has to be done yesterday.

The CHAIRMAN. Yes; that is right.

Mr. STORER. It is pretty far gone, in my book.

The CHAIRMAN. That is what we are hopeful that we can be helpful in trying to work out.

Let me ask another thing about the economics here. I was interested in the part of your statement where you said that the trade-ins in the Miami area, a lot of them were being sold to other countries just developing television.

Mr. STORER. Yes, sir.

The CHAIRMAN. That offers a possibility, too, for the investment the American people have in old sets.

Mr. STORER. Every week there are large numbers of television receivers that are shipped out of Miami to Cuba and other places. Those offer the people in those countries a lower-priced set at considerably reduced prices, and I think it is very constructive.

The CHAIRMAN. Do you have any questions? I think the counsel has some questions he wants to ask.

Mr. Cox. Just a few.

Mr. Storer, is it your conclusion, then, that in your operation in Miami at the present tower height that an increase in your power above 185 kilowatts would not materially improve the service there—your coverage?

Mr. STORER. It would help; yes. But we felt that we should build a high tower first and then find out whether that helped the situation to the extent that we had to add additional power. We were quite surprised to see that the additional power, while desirable, is not nearly so important as the additional height of the tower.

Mr. Cox. As I understood it, you said you felt that with this power and antenna height you now have achieved substantial equality with the VHF station in Miami?

Mr. STORER. Yes, sir.

Mr. Cox. Consequently, then, with 90 percent conversion in the area, you offer an advertiser in Miami 90 percent of the coverage he could get with your VHF competitor?

Mr. STORER. Approximately. I said 85.

Senator POTTER. How far out can you get with your grade A signal?

Mr. STORER. That depends, Senator, on what you determine is a grade A signal. In that area, due to the flat terrain, it is almost all grade A until you get out to the point where the signal falls off substantially—which begins, incidentally, at about 65 to 70 miles. We had a firm of engineers, the Craven, Lohnes & Culver firm here in town, make a survey. I think this illustrates the grade A coverage.

I want to make myself clear. The additional power is desirable, and out at the fringe, for instance way down in the Keys, 60 miles down the Keys, you do get a better picture with higher power. It so happens that WITV on channel 17 has a radiated power of something on the order of half a million watts, I believe. At that point we notice that their signal has a little less snow than our signal, but we go out farther. Actually, you can get our signal on down the Keys—the case in point—where you can't get theirs.

So it would be desirable—and we planned if we could make an economic success of this station—to increase our power at Miami. But we first wanted to get a determination as to which was more important—the tower height or the power.

Mr. Cox. The point I am trying to get at is: If you have substantially the same coverage as the V and you have, of course, coverage

in the center of the metropolitan area around Miami, isn't it true that you offer to the national advertiser just about as satisfactory an outlet for his advertising as your competitor does?

Mr. STORER. Yes, sir.

Mr. COX. In your opinion.

Mr. STORER. Yes, sir; insofar as we have 85 to 90 percent conversion.

Mr. COX. Isn't it true that your card rate for class A time is only about half that which is charged by the V?

Mr. STORER. About 60 percent.

Mr. COX. Therefore, in terms of cost per thousand, your cost is competitive?

Mr. STORER. Yes, sir.

Mr. COX. Then is the advertiser resistance that you talk about a feeling that they have toward UHF generally, regardless of the particular situation in the market?

Mr. STORER. Yes; and they have it rightly. There is no gainsaying the fact that in the past we have had in UHF a receiver problem which in recent months has been greatly improved. In my own house—and my associates have all had this experience—we do have more service on UHF sets, until recently. Lately, the service from the UHF sets seems to be quite stable and satisfactory.

So in the earlier days of UHF, the converters were not as good as the later day converters, and all-channel sets weren't nearly as good. I understand that this new GE tube improves it to the point in the front end of the set, as they say, so that the UHF receiver is as good in every respect. How soon that will get into public usage, I don't know. I understand that they are shipping a lot of those tubes on an experimental basis for military production now.

But all we say is that there should be a holding operation somewhere here for UHF. Frankly, we haven't done very well with UHF. We are not too proud of our results. Economically, in Miami we broke in the black in November-December. Due to the Christmas checks, bonuses, and so on, we are in the red. I have not seen the January figure yet.

In Portland, we have economically done quite well. However, we have had an awful lot of expense to improve that facility, and if you took the amounts that we have poured back into UHF in Portland, we are still way behind the eight ball economically.

The CHAIRMAN. What would you do without a network?

Mr. STORER. We have a certain amount of pride in continuing, but I am afraid that with 4,000 stockholders at our backs, we would probably have to fold up. I do not think we have any choice. That is why we are so appreciative of NBC, as the case in point, in sticking with us.

The CHAIRMAN. But they don't have to stick with you?

Mr. STORER. No; they don't. In Miami, with the channel 7 grant there—and I want to say in passing in all fairness, that when we went into the Miami picture, we were told by NBC that when a VHF was granted down there and with the connection that Niles Trammel, formerly president of NBC had, that we would lose our affiliation. They have been completely square with us, and if we lose the affiliation in Miami, we will probably try to rock along for a while on a reduced basis.

But whether we can keep it going in my book, on the standards which we have set for our company generally, programwise, I doubt it.

The CHAIRMAN. But you would have a better chance of surviving in Miami as of now than any other place, because of the sets that you have?

Mr. STORER. Yes, sir.

Mr. Cox. If, however, two V's come in, not only channel 7 but channel 10 that is still in hearing, isn't that going to substantially wipe out the investment which the people in that area have made in conversions or purchase of all-channel sets?

Mr. STORER. No doubt about it, sir.

Mr. Cox. I assume that would be a very substantial figure, with the 120,000 sets converted?

Mr. STORER. Call it 250,000 times a minimum of \$50.

Mr. Cox. That would be the minimum conversion cost?

Mr. STORER. Yes. That would be roughly \$12½ million.

Mr. Cox. I gather that it is your opinion, based on a reading of your proposals to the Federal Communications Commission, that the chances of survival of the UHF station in a market with two V competitors is very slim unless that station is owned and operated by one of the networks; is that correct?

Mr. STORER. Yes.

Mr. Cox. But you feel that one or more well-managed U's can compete successfully is there is only one V in the area?

Mr. STORER. Yes, I do, sir.

Mr. Cox. Because primarily that permits still the possibility of network programing for the U's in the area in order to get conversion and maintain it?

Mr. STORER. Yes. I would say that it will take some time for the national advertiser to arrive at a point where he is completely sold on the U versus the V, even with just the one VHF. But we find that every month we have repeat orders. They come along on the basis of a very short-term contract, shall we say, just a week-to-week kind of existence. But we got a lot of repeat orders from good advertisers today that we didn't get last year at all.

Mr. Cox. I think in your statement you indicate that about 56 percent of the present UHF sets in service are in the markets which would be covered by this holding operation you are proposing.

Mr. STORER. Yes; that is right.

Mr. Cox. You are of the opinion that is a sufficiently broad economic basis to encourage the manufacturers to continue to produce effective equipment?

Mr. STORER. I would prefer to say I hope so. I do not really know. I don't think anyone does. But certainly at some point, if we are going to save UHF—we can talk about it a lot and have a lot of wishful thinking—but at some point we have got to find a way of at least demonstrating that UHF is a good service. That is the thing that bothers us the most.

Senator POTTER. I am sorry I wasn't here for your statement, Mr. Storer. I had an Appropriations Committee hearing this morning and I had to take that in too—but are you saying that in order to save UHF, the Commission will have to agree to an order to deintermix?

Mr. STORER. I think so. This little operation which I describe, Senator, in this statement, down in Palm Beach, where they have between 5 and 6 people, I believe, on the payroll and a very modest program schedule, may refute the idea that you have got to do something along the lines we suggest.

But I do not believe so. I think unless they get some advertising support from other than just their local operation—and I might say in Miami that the competition for local business from the VFH has been surprisingly active. We have found that they point out some of our deficiencies as good salesmen, continuously. It just isn't easy to sell the advertisers.

The only way we have been able to effectively sell the advertiser is to maintain very good programming in certain segments of the early evening hours where we don't get the network shows. By putting in film programming—which increases the cost of a UHF operation over a VHF operation—

Senator POTTER. It has been suggested that in case the Commission should decide to deintermix certain areas, that the areas that should be deintermixed should be your large metropolitan areas, to allocate your large cities such as New York, Los Angeles, Chicago, Philadelphia, and so forth, as the UHF areas. Then your VHF is more conducive to your smaller communities and your sparsely settled areas.

Mr. STORER. Yes, sir.

Senator POTTER. Would you care to comment on a suggestion of that kind?

Mr. STORER. I would especially like to comment on that one because we have a sales office in New York. It is sort of like the old country store idea. We found it was so hard to get hotel reservations that we rented this very small building. It is only 20 feet wide, but it is 5 stories high. It is situated on 57th Street behind a lot of other buildings.

Naturally we wanted to be able to show television and see television in our own office, in our own house, so to speak. So we put up an antenna on top of the roof. Even with the low-band channels—channels 2, 4, and 5—we had tremendous reflection problems. But on channels 7 to 13 we had difficulty getting the stations, even from the Empire State Building.

So we had to move three roof tops over. Fortunately we had a friend three doors away in the picture-framing business. He was kind enough to let us put an antenna up there. It wasn't until we got that antenna up there that we were able to get all the stations. We feel in any large city UHF is an awful headache, and that many, many people would be deprived—for instance in New York—of service if you made them into UHF centers.

Senator POTTER. In other words, because of the high buildings and so forth, UHF frequency is not conducive to that area?

Mr. STORER. Yes, sir. As a matter of fact, any time you get into a deep shadow, you must remember that up here at the top of a building, if you have a low-band VHF signal coming in, you get down in the shadow behind that building, you have got a loss of say 10 to 1. If you get up into the upper band, the 7 to 13 group, it doubles and even more. In other words, it might be a ratio of 20 to 1 fall-off.

But when you get a UHF that comes in down in this area behind that building, you have a 100 to 1 drop-off. In other words, at this point if you have 10 millivolts up here, and you get down in behind that building, you have a one-tenth millivolt with the UHF as opposed to a 1 millivolt signal, which is a good signal on low-band VHF.

So we feel very definitely that in the larger areas, with buildings and apartments—multiple dwellings—that that is a terrible problem.

Mr. COX. Isn't it true that your plan, in addition to a holding operation for UHF, also adds first V channels in 10 of the top markets? Would you tell the committee why it is important to guarantee the availability of multiple outlets in these top markets?

Mr. STORER. The old saying is that 2 is company and 3 is a crowd. If you get three strong networks, you have for the American public better programing.

As has been said before your good committee before, one of the difficulties that ABC has found is in getting into a lot of these markets. If you can create some more 3-VHF markets, you have helped very materially increase the availability of better programing by helping the third network.

The CHAIRMAN. For ABC, for instance?

Mr. STORER. Yes, sir.

The CHAIRMAN. Mr. Storer, I still get back to this. I appreciate what you have said, but we are still talking about stations with networks, aren't we?

Mr. STORER. So often we are, yes, sir.

The CHAIRMAN. Is it possible, in your opinion, if the set situation was taken care of as it is now in Miami, practically, for a UHF to exist as a local station—or are we going to look to the future and have no local stations at all in television—whether they are VHF or UHF?

Mr. STORER. No, currently, Senator, I believe there is a market improvement in the large, independent television station operation.

Back in the early days of radio, I remember when a 100-watt station in a small town was something that nobody wanted, economically. As time went on, the independents in the large centers began to do pretty well. And while we have a totally different set of circumstances in television with the high cost of programing, yet there are some evidences that that is going to be solved because sooner or later these large film packages, so to speak, owned by these older film producing companies, will be released for sale, and they will be shown on the independent stations and after they have run them 2 or 3 times, those are going to be offered to the smaller stations and to smaller stations in smaller towns, and you are going to have some program sources.

The whole difficulty today in operating either an independent V or an independent U is the battle between the high cost of programing and the station's income.

The CHAIRMAN. I appreciate, of course, that the problem would always exist if the set problem is not solved. But if that is solved, what I am trying to say to myself: There must be some economic hope in the future. I appreciate the networks are going to do their programing, and that is one part of the procedure.

Mr. STORER. Yes, sir.

The CHAIRMAN. That involves the place of the national advertiser, of course, which is what makes the networks survive.

Mr. STORER. Yes, sir.

The CHAIRMAN. But I would feel quite dismal about this whole situation if I thought that with the technological advancements, the cost of building a station probably going down, that there was no room for a station in a given market to act independently without a network, because I am thinking of the local advertisers. If this would keep up this way, pretty soon you couldn't advertise anything but a national product.

Mr. STORER. There is room for development.

The CHAIRMAN. I am a little bit worried—more worried than ever, too—because there have been more mergers in the past 18 months in this country than any prior 18 years. The big ones are getting bigger, and there have been more bankruptcies in the past 18 months than in the prior 10 years, and 98 percent of them are little businesses.

Mr. STORER. Yes, sir.

The CHAIRMAN. I do not say there isn't a place for the network scheme of things. I mean that is going to be a great part of it. But it seems to me that we ought to be looking at this other problem, too—maybe the survival of UHF might help achieve this.

Mr. STORER. Yes, that is right, sir.

The CHAIRMAN. To maybe an independent UHF station in a given community. In my own town of Seattle, for instance, where the local fellow could come and advertise, even a few of us local politicians might get on.

But the way it is now, it is almost impossible.

Mr. STORER. It certainly is indicated by the improvement in the larger stations.

The CHAIRMAN. I might make a better mousetrap, but I would have no chance to tell anybody about it. I hoped we were going, in this expansion, to come to at least competitive independent stations in given communities. I see maybe a place for UHF in that, if the set situation is cleared up.

Mr. STORER. Senator, in the large areas such as New York, years ago the independent VHF's were having a serious problem. I believe that they are beginning to see much better figures from an earnings standpoint, and their circle of influence in the communities around New York, as well as in New York, has improved greatly.

As a matter of fact, I think that some of the networks—and not for 1 minute do I disparage the tremendous courage which the networks have shown in developing this whole—

The CHAIRMAN. Any station that would have to compete with a network program would have to have a good program.

Mr. STORER. That is right.

The CHAIRMAN. I hate to just sound the death knell to locals—what I call local programming and local stations. Just take baseball. What is happening? The network puts on the Yankees playing the Washington Senators on a given afternoon. The minor leagues are dead, aren't they?

Mr. STORER. Very dead, yes, sir.

The CHAIRMAN. That is a good example of it. I just deplore seeing that happen, and the local advertiser has no chance to get on these stations. The cost is too great and he has got to have some outlet because this is going to be, in my opinion, the greatest medium of expression of all time.

Mr. STORER. I think there is still some hope if you can keep a holding operation of this character.

The CHAIRMAN. I was going to say maybe this is where UHF fits into the picture. What do the Commissioners say—maybe pay-as-you-go might be put on the UHF band. Who said that—Lee, didn't he?

Senator POTTER. Isn't it true, Mr. Storer, they have reached more or less a breakthrough on this so-called picture tape?

Mr. STORER. Yes, sir.

Senator POTTER. If that is developed, that will allow any independent station on earth to have fairly cheap programing, which should be good programing.

Mr. STORER. Yes, I think that is true. As a matter of fact, I was very interested in reading a comment by General Sarnoff the other day that he felt the live programing on the networks was very important and the immediacy of a program was very appealing to the public.

The CHAIRMAN. And they do a good job. But it costs a great deal of money.

Mr. STORER. But the interesting part to me was—and is—that he commented that if everybody went to film, it would be lost—that immediacy, that live programing would be lost, which shows that in the general's mind, and certainly I don't believe there is anybody that knows more about this business or has thought more about it and pioneered more than he, there is a growing acceptance of film.

So there may be a place for the small independent element.

The CHAIRMAN. And they are making shorter films—half-hour films—and not the long features.

Let me ask you this: If you could build a UHF station—the cost could be gotten down to \$200,000 capital investment—and get a channel in a given market area, couldn't you then, if the set situation was materially changed, couldn't that station with local programing be economically sound with that small investment?

Mr. STORER. I doubt it, sir. If you have a VHF market and you are invading that VHF market, and hope to convert all those receivers.

The CHAIRMAN. I am speaking a little bit about the future, where we hope that a set can take either band—maybe in this color thing. Couldn't he, with local programing, survive?

Mr. STORER. He might well. But it is in the future. In the meantime we have to have something to hold the band.

The CHAIRMAN. In the meantime we have this other. I am speaking always in terms that we hope we get this set situation cleared up a little. Then he has got a chance, hasn't he, as a local programing unit?

Mr. STORER. Yes.

Senator POTTER. How did you get such a high percentage, Mr. Storer, of conversion in your Miami market?

The CHAIRMAN. He went out and went after it, and he had NBC.

Mr. STORER. First we got a lot of additional network programs and we spend a very considerable amount of money on good film programs in those spots where we could not get the network advertisers to take our station. We employed a very substantial number of engineers to go around to all the dealers and promote the development of UHF.

Senator POTTER. Was there reluctance on the part of the dealers?

Mr. STORER. At first. But after a while they were our best helpers. I can tell you in just 1 month we spent \$23,000 just on project 23.

It just happened to come out at the same figure, so I remember it very well. That was just the promotional end of the operation.

The CHAIRMAN. The reason you could do that was because they wanted to see the programing on NBC?

Mr. STORER. That is true, sir, no doubt about it.

The CHAIRMAN. You wouldn't have been able to do it if you were just having local programing, unless you had something very unusual?

Mr. STORER. If we had a lot of very expensive film programs, we might have.

The CHAIRMAN. It would have been more difficult, let's put it that way.

Mr. STORER. It would have been more difficult, yes, sir.

The CHAIRMAN. We will take about a 5-minute recess here to give the reporter a rest.

(A short recess was taken.)

The CHAIRMAN. The committee will come to order.

Mr. Storer, I would like to ask you one further question and get your opinion on this. It relates, of course, to the survival of UHF. It would apply, maybe, only to this type of condition. But supposing there is a market with 2 U's and 1 V. Would it substantially help the survival of the 2 U's if that 1 V was limited to 1 network?

Mr. STORER. Yes, sir.

The CHAIRMAN. In other words, not the way it is now in some cases. They take all of them.

Mr. STORER. In the first place, their own network has first call. Then after that, the next network vies with the other to see how many kinescope periods they can get, and as a result, you lose 30 to 40 percent of your traffics.

The CHAIRMAN. That sort of a policy might help considerably; wouldn't it?

Mr. STORER. Very much, sir.

The CHAIRMAN. The V's would be all right anyway; wouldn't they?

Mr. STORER. Yes, they do very well.

The CHAIRMAN. Thank you, unless there are some further questions. Do you have any?

Senator POTTER. No.

The CHAIRMAN. Thank you, Mr. Storer.

The next witness is Harold Thoms, who represents the UHF Industry Coordinating Committee. We will be glad to hear from you, Mr. Thoms.

STATEMENT OF HAROLD THOMS, UHF INDUSTRY COORDINATING COMMITTEE, ACCOMPANIED BY BENEDICT COTTONE, THE COMMITTEE'S COUNSEL

Mr. THOMS. Mr. Chairman and members of the committee; I am president of radio station WISE and WISE-TV, a UHF station in Asheville, N. C.

I have served as chairman of the UHF Industry Coordinating Committee since the time it was organized in March of 1954. This is my second appearance before several of the gentlemen of this committee with respect to the UHF problem. I first appeared before you in May of 1954 in the hearings held by the subcommittee of this committee under the chairmanship of Senator Potter.

At the outset, I would like to bring the record up to date. When I appeared before Senator Potter's subcommittee almost 2 years ago, I was questioned at that time concerning my holdings in UHF television. I then stated that my television interests were confined to the UHF and that I held interests in stations WISE-TV, Asheville, N. C., WAYS-TV, Charlotte, N. C., WTSK-TV, Knoxville, Tenn., and WCOG, which held a construction permit for a UHF station in Greensboro, N. C.

In order that I may bring the record up to date, I would like to report that my television interests are still confined to UHF. However, my holdings in UHF television have radically altered since I last appeared before you. In September 1954, I surrendered the construction permit for WCOG and returned it to the Commission. In December 1954, station WAYS-TV was sold for the price of \$4— and in March 1955 the station ceased operation and went off the air. In July 1954, station WTSK-TV was sold for \$1. My holdings in television are, therefore, limited at this time to UHF station WISE-TV in Asheville.

So much for my personal UHF history. I would also like at this time to bring the record up to date in other respects. When the UHF Industry Coordinating Committee appeared before your subcommittee almost 2 years ago, testimony was presented through a number of witnesses representing operating UHF television stations. Many of the stations represented by witnesses who appeared before your committee 2 years ago are no longer in operation. The list of stations which have been compelled to cease operation since that time is, of course, much longer. The record should show that at the time of the hearings before your subcommittee, 10 stations which had commenced operation had been compelled to cease their operations and go off the air. At that time, 54 permits for construction had been relinquished and turned back to the Commission. The record should further show that, as of this morning, a total of 56 stations have been compelled to cease operation and go off the air, and 109 permits for construction have been relinquished and turned back to the Commission.

When we came before your subcommittee almost 2 years ago, we then predicted that unless effective remedial action was promptly taken, we were faced with the grave danger that this Nation's television broadcast industry would be reduced to a small hard core of superpower, multiple-market VHF stations providing a limited number of local outlets and services. It was clear, at that time, that unless effective and remedial action were taken, the existing allocation table and the rules would limit the television industry to the hands of a few with a concentration of monopolistic control rather than a television broadcast industry with a large number of stations owned and operated by many, providing a multiplicity of outlets and services.

These grave dangers and the consequent disservice to the public interest were established by numerous witnesses, extended testimony, and exhibits. The problem and our recommendations were summarized in the testimony presented in behalf of the UHF-ICC. The position that was stated at that time, much to our own surprise, is our position today.

In the interest of brevity I will merely restate the summary of our position.

First, the paramount consideration of public interest which should be recognized by the Senate subcommittee and the Commission is that the American public has a vital stake in the preservation of existing television stations as a competitive force in the industry.

This consideration is based upon the basic governmental determination which is implicit and explicit in the nationwide television allocation report and plan that the existing VHF channels are inadequate to assure the attainment of a truly nationwide competitive television service. Pertinent to this general public-interest factor are the great financial and economic stakes of UHF broadcasters, UHF station personnel, and television dealers, distributors, servicemen, and manufacturers.

Second, bitter experience has now proved that intermixture of UHF and VHF channels in the same market was based upon a misguided, though sincere, faith in the ability of UHF stations to achieve competitive equality of opportunity with VHF stations in the same service areas.

Therefore, administrative proceedings should immediately be instituted to explore methods of reallocation or reassignment of channels in such a manner that such equality of competitive opportunity is more readily available. Such plan should, of course, seek to safeguard against serious dislocation of public and industry investments in television.

Third, so that the problem of survival of a competitive television system will not have been rendered academic by the extinction of all UHF broadcasters in intermixed areas, and in order to avoid complicating a solution to the intermixture problem, pending completion of such proceedings, there should be an immediate suspension of any further grants of applications for new television permits and for changes in existing television authorizations affecting coverage.

The CHAIRMAN. By that, you still mean in the areas where this intermixture problem exists?

Mr. THOMS. That is right—only.

The CHAIRMAN. I think the record will show that.

Mr. THOMS. It was our hope, then, and indeed there was every reason to believe, even though reallocation proceedings by the Commission might consume a considerable period of time, that the mere institution of such proceedings by the Commission, with a sincere purpose in carrying them through to a decision on the merits, would in and of itself be a shot-in-the-arm for UHF operators. For if this had been done, the whole climate and attitude in the industry with respect to UHF would long ago have improved. That was just short of 2 years ago. Today, although scarcely a soul has questioned the crying need for the prompt institution and resolution of such administrative proceedings, we are actually no farther along this path than we were when I sat before Senator Potter's subcommittee 2 years ago.

I say this notwithstanding the fact that the Commission purported to open up rulemaking proceedings recently when it threw out some 30 deintermixture petitions. And the reason I say this is because although a minimum of a 2-year study period has been available to the Commission, which has the principal responsibility and the expertise to solve this problem—that agency has yet to come forward with a proposal of its own. But as I will soon show, the record of the past 2 years is one of shameful neglect of the problem, of building up hopes and expectations that solutions would soon be forthcoming, only to have every single such hope dashed to the ground when the chips were down.

Your committee, which has been standing on the sidelines during these 2 years, also with the expectation that something definite would be forthcoming from the Commission, has been treated to the spectacle of a Government agency—which it likes to call one of its arms—re-

peatedly "marching up the hill and then marching right down again." We have heard solemn proclamations from Congress and from the Commission that the UHF problem simply must be solved, but beyond these hortatory gestures, something tangible has yet to be produced.

The inaction of the past 2 years cannot be excused on the ground of lack of definite recommendations. UHF operators en masse came before the Potter subcommittee 2 years ago and urged prompt consideration of the feasibility of a long-range transition of television into the UHF band, under a program which would protect against serious public and industry dislocations. This plan was branded as too radical, despite the fact that even the former majority counsel of this committee could find no better reason against the plan than the utterly far-fetched one that some members of the public would still be paying installments on their present VHF sets 5 years from now.

The CHAIRMAN. Who was that?

Mr. THOMS. The majority counsel for Senator Potter's committee.

Senator POTTER. That wasn't my committee—that was the full committee. As a matter of fact, I think if the recommendations of our subcommittee had been carried out, if the full committee had accepted them, we would have been further along our way to getting some solution to this problem.

Mr. THOMS. You are so right, Senator.

The CHAIRMAN. Mr. Plotkin and Mr. Jones were employed by the committee, by Senator Bricker and Senator Johnson, as special counsel on radio and television matters.

Mr. THOMS. Be that as it may, UHF operators bowed to the resistance to consideration of an all-UHF plan. When such highly respected persons as the president of CBS came before Senator Potter's subcommittee to urge consideration of selective deintermixture, we came back to you before public hearings had been completed and said to you:

We believe, however, that in the final analysis, Dr. Stanton's presentation was most forthright in that he recognized that a grave problem exists which can only be met by serious consideration of reallocation measures. We certainly accept his premise that reallocation is the proper method by which to achieve nationwide competitive service. We have felt and feel that this premise must lead logically to a single spectrum system, because the availabilities in VHF are so limited that UHF alone can bring about the equal opportunity to compete for the maximum possible public service.

Senator PASTORE. Do you mean by that you would do away completely with VHF?

Mr. THOMS. No.

Senator PASTORE. That is what you said there.

Mr. THOMS. We gave up insisting that VHF be given up and all television moved to the UHF band. We relinquished that position.

Senator PASTORE. You have receded from that position?

Mr. THOMS. Yes, sir.

Senator PASTORE. You have therefore urged selective deintermixture?

Mr. THOMS. That is right. We went on to say:

But we nevertheless endorse Dr. Stanton's recommendation of a study to determine whether any feasible deintermixture plan can accomplish the necessary goal of a truly nationwide competitive system provided that such study is speedily accomplished so that it may promptly be determined whether it will or will not be necessary to go to a single spectrum system in order to provide a truly nationwide system providing equal competitive opportunity to broadcasters.

As will be further shown, there have been other proposals and recommendations which were urged upon the Commission throughout this 2-year period with the same result—inaction.

When we completed our presentation to Senator Potter's subcommittee, we believed that there was a very good likelihood that effective action would be taken to avoid a grave threat to the public interest. And we were not alone in that view. For example, the trade press reported in May of 1954 that "so impressed were Senate Communications Subcommittee members by the pleas of UHF operators for urgent action to alleviate their plight that as of now they seem inclined to use strong measures—possibly drastic enough to cut across the whole fabric of the TV structure." We now know, of course, that the hopes and expectations that were engendered at that time were wishful thinking.

From time to time, UHF operators have been given reason to hope that remedial measures would soon be forthcoming. But the fact is that the whole succession of events amounts to nothing more than repeated disappointments and failures to act. A report of that history was prepared by the Ultrahigh Frequency Industry Coordinating Committee. I have attached it to my statement, and I ask that it be made a part of this record.

Senator PASTORE (presiding). At this point, without objection, it is so ordered.

(The document referred to is as follows:)

REPORT ON THE HISTORY OF THE ACTIVITIES OF THE UHF INDUSTRY COORDINATING COMMITTEE AND ON THE HISTORY OF THE STRUGGLE FOR MEASURES TO RELIEVE THE CRITICAL UHF PROBLEM

The UHF-ICC was organized in April of 1954 after a wave of UHF failures and the worsening situation with respect to UHF throughout the country had prompted the Communications Subcommittee of the Senate Interstate and Foreign Commerce Committee, under the then chairman, Senator Potter of Michigan, to schedule hearings on the status and development of UHF channels in the United States. Within a short space of less than a month, over 80 UHF stations and permittees enthusiastically indicated their desire and willingness to join in a committee dedicated to the purpose of making a full, factual presentation of the relevant data in the forthcoming hearings before the Senate subcommittee and of pressing for effective governmental remedial measures which would assure nationwide competitive television service.

The hearings before the Senate subcommittee were held in May and June of 1954 and the record of the proceedings covered more than 1,000 pages. The UHF-ICC, through testimony by a large number of UHF broadcasters from all sections of the country, and by its chairman, vice chairman, legal counsel, and economic consultant, presented extensive data with respect to the situation then existing in the operation of UHF stations.

The basic objective urged by the UHF-ICC was the modification of the existing geographic television assignment plan upon a basis which would eliminate the gross competitive disparities inherent in the two-spectrum assignments made under that plan; and provision of sufficient equal compatible assignments in the same markets to insure fair and equal competitive opportunity among television broadcasters and networks as well as a diversity of national and local program services. To accomplish that objective the UHF-ICC urged that the public interest could only be served by the assignment of all stations within one portion of the spectrum with a "single market concept" as the basis for the establishment of a revised allocation plan in the public interest. The availability of 70 channels in the UHF portion of the spectrum as compared with only 12 channels in the VHF portion of the spectrum clearly dictated the wisdom of establishing such a revised plan by use of the UHF band solely. In view of the number of outstanding VHF receivers in the hands of the public the UHF-ICC recognized the need for, and accordingly urged that a reasonable transition period be provided to coincide with the period of obsolescence of such VHF receivers in the

hands of the public. Many individual UHF broadcasters separately urged similar reallocation proposals.

The members of the FCC, in their presentation to the Senate committee, recognized the gravity of the existing problem but did not present any remedial measures and defended intermixture of VHF and UHF stations. It was apparent, however, that the members of the Senate subcommittee had been greatly impressed by the presentation of UHF broadcasters, that they recognized the urgent need for remedial action, and that they were not satisfied with the Commission's willingness to rest with the status quo. Thus, for example, it was reported in *Television Digest* on May 22, 1954 that—

"Senators lean to drastic UHF remedies: So impressed were Senate communications subcommittee members by the pleas of UHF operators for urgent action to alleviate their economic plight, that as of now they seem inclined to use strong measures—possibly drastic enough to cut across the whole fabric of the TV structure."

* * * * *

"Network representatives and old-time station operators—the few who bothered to pay attention—were taken aback at the way things were going."

The Potter subcommittee hearings were recessed, however, during the NARTB convention in Chicago. This recess was most unfortunate since it appeared that the considerable momentum which had built up for immediate and effective relief was dissipated not only by the passage of time but by the lobbying of powerful interests during the intervening period and particularly at the NARTB convention. At the conclusion of the hearing, Chairman Potter stated:

"I can assure you that we are not going to make any half-cocked decisions, but we are going to act immediately * * *. Not only the members of this committee, but all Members of Congress are greatly concerned about this problem, if the communications that I have received from the various Members of Congress are any indication."

More than a month elapsed, however, and no action of any kind was taken. Chairman Thoms and Vice Chairman Weber spent a week in Washington visiting with the Members of Congress in an attempt to determine what action was proposed to be taken. The results of their investigation were most disheartening. Chairman Thoms issued a report to the members of the UHF-ICC stating that in his view " * * * no sound relief is forthcoming now or in the foreseeable future."

The remainder of the year vindicated that view. Conduct of the investigation was removed from the jurisdiction of the Potter subcommittee as a result of differences between Senator Potter and Senator Bricker who was then chairman of the Committee on Interstate and Foreign Commerce, and taken over by the latter committee. Except for the selection of majority and minority counsel, however, for the alleged purpose of intensifying the study of the UHF problem, there were no visible signs of any activity from congressional quarters looking toward any definite action. Activity at the Commission level was similarly inconclusive. In two actions which the Commission professed to be taking in order to help UHF, it (1) issued a public notice stating that it would consider UHF satellite operation on a case-to-case basis; and (2) revised its multiple ownership rules to permit the ownership of a total of 7 television stations provide that 2 were UHF. The latter measure had been severely criticized by the UHF-ICC as one which would not ameliorate the UHF problem but on the contrary would promote further monopolistic concentration by networks and other already favored multiple VHF operators, in testimony by its counsel before the Potter subcommittee. In a letter to the FCC on August 16, 1954, the UHF-ICC, by its chairman and vice chairman, pointed out that the Commission's satellite proposal, to the extent that it would permit high-powered wide coverage VHF stations to operate satellites, "must prove disastrously injurious to independent station UHF operation," and further aggravate competitive disparity between VHF and UHF stations. It was urged that the FCC postpone the effectiveness of its announced satellite policy and institute proceedings on a rule which would limit satellite operation in a manner which would preclude further VHF encroachment in distant markets served by UHF stations. The Commission, however, rejected these comments and permitted its policy to become effective without limitation.¹

¹ In a letter dated November 8, 1954, from the Commission's Secretary, the UHF-ICC was advised that the Commission desired to leave the satellite policy "flexible." It does not appear from this letter that the UHF-ICC's comments were formally considered by the Commission en banc.

On September 15, 1954, the Commission issued a notice of proposed rule-making looking toward the authorization of private microwave intercity relay stations by television broadcasters in apparent recognition of mounting clamor by UHF stations for relief from the crushing burden of exorbitant cable costs required to be paid the telephone company. The proposal was strongly opposed by the telephone company and by no one else. It was however supported vigorously by the UHF-ICC and by a great number of other parties. The UHF-ICC pointed out that (1) many stations and particularly small stations located in communities distantly removed from large urban centers are faced with the insurmountable barrier of exorbitant rates charged by the common carriers for interconnection; (2) that the public interest is seriously affected adversely by the inability of stations to obtain facilities for interconnection on a reasonable basis; (3) that it is vitally important for the successful operation of all stations (including noncommercial educational stations) that they be able to broadcast simultaneously the programs originated by any one of the stations; and (4) that it is important that stations serving a homogeneous area with common interests and needs, be enabled to link together for the broadcast of programs and particularly in times of national emergency. Although hope was aroused by the Commission's announcement of this rule change that some measure of relief would thereby be provided to heavily burdened UHF and small market VHF stations, it still remains unacted on, 16 months after the Commission proposed its adoption.

During the Potter hearings many parties urged that selective deintermixture should be undertaken. In rebuttal testimony the UHF-ICC endorsed selective deintermixture provided that prompt consideration of selective deintermixture be undertaken. Thus it was stated that the UHF-ICC favored "a study to determine whether any feasible deintermixture plan can accomplish the necessary goal of a truly nationwide competitive system provided that such study is speedily accomplished so that it may promptly be determined whether it will or will not be necessary to go to a single-spectrum system in order to provide a truly nationwide system providing equal competitive opportunity to broadcasters."

When it became apparent that no early remedial action could be expected upon the initiative of the Senate committee or the FCC, UHF operators were urged by the working group of the UHF-ICC to file individual proposals with the FCC for deintermixture or other change of the channel assignments in their own markets which would ameliorate the situation on a market-by-market basis. A number of proposals for selective deintermixture of particular markets were filed in the latter part of 1954. The Commission, however, denied these proposals giving as the reason its belief that it would be unfair to applicants for the VHF channels which would be deleted by the deintermixture proposals who had expended large sums of money to prosecute their applicants.

As a result of the change of party control in the 84th Congress Senator Bricker was replaced by Senator Magnuson as chairman of the Senate Interstate and Foreign Commerce Committee. Hopes of UHF operators were again aroused by public statements indicating that the committee expected to push for early remedial action with respect to the critical UHF situation. In February 1955 the reports of counsel to the Senate Committee on Interstate and Foreign Commerce on television network regulations and the UHF problem were released. The recommendations of the report of the majority counsel with respect to the UHF problem were timid and ambivalent. Although it was recognized that an all-UHF allocation was sound logic and was the only solution which could reasonably be expected to achieve nationwide competitive television service, it was concluded that such an allocation should not be attempted. The majority counsel report, while on the one hand urging that the Commission reconsider its denial of deintermixture, argued that broad-coverage VHF stations were the only means by which service to rural areas could be provided, and that it would not be fair to require the public to convert to UHF regardless of how long a period of transition was provided. The additional recommendations of the majority counsel to alleviate the UHF problem were that tax exemption should be provided for all-channel receivers, as proposed in pending legislation, and that certain regulatory restrictions be imposed on network operations and on the multiple ownership of stations. The minority report made extensive factual findings showing the seriousness of the UHF problem and recommended that additional investigation be conducted for the purpose of arriving at substantive recommendations. The reports of counsel were transmitted by the chairman of the committee to the Commission and the Department of Justice for comment.

In confirmation hearings before the Senate Committee on Interstate and Foreign Commerce on February 23, 1955, Chairman McConaughy testified that "I

think that very likely it would be wise, and thinking for myself now, not speaking for the Commission in these matters, I think that the Commission should consider rulemaking on a selective basis possibly in deintermixture."

On March 3, 1955, the expectation of early remedial measures regarding the UHF problem was again encouraged when the Commission granted the request of UHF station WKNX-TV, Saginaw, Mich., for proposed rule making, looking toward the amendment of its rules to limit the location of antennas to within 5 miles of the principal city to be served, unless strong public interest reasons to the contrary were shown by the applicant. In its notice the Commission recognized that the implementation of a fair, efficient, and equitable allocation plan required that a specific distance limitation should be observed unless such reasons were clearly shown. As will be pointed out below, however, the Commission discarded this proposal at about the same time that it decided to turn down selective deintermixture proposals.

On March 18, 1955, the Commission in its comments to the Senate in response to the staff reports on the network and UHF studies, urged no specific remedial measures, but stated that Congress could encourage production of all-channel sets by removal of excise tax and/or getting manufacturers to agree to produce such sets voluntarily and urged that Congress grant FCC extra funds to conduct a full study of networks, advertisers, agencies, talent, individual film producers, and distributors.

The Commission further stated that moving all stations to UHF "could involve such tremendous dislocation of existing operations" that such action should be taken only if Congress itself so determines. With respect to selective deintermixture the Commission stated that it was unable to advance any "definitive answer," but that it was "* * * considering the circumstances, if any, under which such limited deintermixture may be appropriate * * *." The Commission listed as the steps it had already taken to solve the existing problems (1) the relaxation of its multiple-ownership rules; (2) the announcement of the "satellite" policy; (3) the proposed 5-mile rule; (4) the proposed rule to authorize private microwaves.

Senator Magnuson stated his reaction to the Commission report as follows: "Failure to advocate immediate remedial action * * * could soak the householder millions of dollars. We can solve this thing without this expenditure, which I am sure everyone, FCC included, does not want to happen." He further stated that he had hoped that "FCC will move before it is too late to deintermix anything."

Shortly thereafter, the UHF-ICC announced the following 10-point formula in response to the statement of Senator Magnuson that the Senate Interstate and Foreign Commerce Committee would resume its investigation and study of the UHF problem: "(1) Deintermixture; (2) directional antennas; (3) power and antenna height adjustments; (4) mileage separation reductions; (5) confinement of TV stations to their own market; (6) common carrier cable cost reductions; (7) opportunity for competitive common carrier service in the field of transmission of network programs to TV stations; (8) opportunity for TV broadcasters to operate microwave relays for transmission of network and other programs; (9) receiving set performance standardization and elimination of cost differentials for all-band sets; (10) grant of funds for FCC for extensive investigation into entire field of network programming."

In the early part of 1955 the Commission instituted rulemaking proceedings on the controversial question of subscription television. The Commission took no position on the numerous difficult matters involved but rather was limited to the listing of questions of fact, law, and public policy on which comments were requested. Arrayed on one side of the controversy are the proponents of individual subscription systems, Zenith, International Telemeter, and Skiatron. On the other side are the opponents of subscription TV in any form, networks, movie interests and entrenched VHF stations. While the controversy was raging, the NARTB directorship took a position opposing subscription TV and the management of that association issued public statements against introduction of subscription TV even on a trial basis.

On April 28, 1955, the UHF-ICC, addressing itself to the NARTB's position, issued a statement pointing out that subscription television may develop in a manner that will provide beneficial results to the public and the industry and condemning the NARTB prejudgment of the issue before proper study of the matter had been conducted. It was urged that the Commission should give subscription TV a full hearing and investigation.

The foregoing developments in the early part of 1955 gave rise to renewed hope among UHF broadcasters that the FCC was now likely to be more favor-

ably disposed toward effective remedial measures. Therefore, despite the previous turndown of deintermixture a series of deintermixture proposals were refiled, and additional deintermixture proposals were filed, in the early spring and summer of 1955. These hopes were fanned into optimistic expectation on March 31, 1955, when the Commission reconsidered its previous denials of the requests for deintermixture of four cities and instituted rulemaking proceedings looking toward channel reassignments in those cities (Peoria, Evansville, Madison, and Hartford) so as to make those cities all UHF. The Commission in its orders, called for extensive data with respect to enumerated matters which the Commission considered pertinent to its decision on the requested channel reassignments proceedings. Oral argument was held by the Commission on June 27 and 28, 1955.

On May 24, 1955, an address by Chairman George C. McConnaughey at the annual convention of the National Association of Radio and Television Broadcasters, provided additional basis for encouragement to UHF operators. The FCC Chairman stated that the Commission had taken the following steps to meet the UHF problem:

"(1) We have recently put out rulemaking proposals looking to the possibility of deintermixture of UHF and VHF in certain cities."

* * * * *

"(5) We have instituted a rulemaking proceeding which looks toward the setting of a 5-mile limit from the boundary of the city to be served where a television station may place its transmitter, with provision for exception upon a proper showing of public interest."

Because of the costs of travel to Washington, no general meetings of the UHF-ICC were held from the time of the Potter hearings until the spring of 1955. Several meetings of a working group were held in Washington during this period in connection with the developments described above.²

General meetings of the committee's membership were held in Washington May 22-25, 1955. Topics on the committee agenda included methods of relieving UHF broadcasters of the heavy financial burden of meeting equipment obligations, deintermixture, reduction of VHF power, antenna height and mileage separations, use of directional antennas, confinement of stations to their own markets, reduction of cable and microwave relay costs, and methods for obtaining network programs for UHF stations.

As a result of the meeting a group was organized for the purpose of conducting negotiations with manufacturers looking toward relief measures for UHF operators in serious financial distress. Additionally it was agreed that the UHF-ICC file a petition with the Commission urging the institution of general allocation rulemaking proceedings, the prompt resolution of pending deintermixture proposals, and the deferment, in the interim, of VHF grants which would aggravate intermixture. On June 21, 1955, a group of members of the UHF-ICC met with the Commission for the purpose of urging early action on the proposals in the UHF-ICC petition. The petition was filed on the same day.

It was specifically requested in this petition that the Commission—

(1) Immediately institute rulemaking proceedings looking toward the amendment of its rules so as to authorize on a case-by-case basis, upon consideration of individual applications therefor, the assignment of VHF stations at reduced mileage separations upon a showing that the public interest will be served thereby. More particularly it is requested that stations be authorized in the VHF portion of the spectrum at reduced separations where it can be established: (a) That the utilization of directional antennas or low power in the proposed operation would not result in more interference than would be caused at the heights, powers, and separations presently authorized under the Commission's rules and regulations; or (b) that if interference will be caused the need for the proposed service outweighs the needs for the service which will be lost by reason of such interference.

(2) Withhold for at least 90 days the grant of authorizations and modifications of authorizations of television facilities in every case where such authorizations will result in aggravation of intermixture of UHF and VHF stations.

(3) During the 90-day period resolve pending proposals for deintermixture.

During the early summer congressional hearings were held upon a bill recommended by the Commission which would modify the recently enacted protest

²The travel and other costs of attendance at these meetings were at all times borne by the individuals themselves and at no time has any participating member requested or received a penny in reimbursement of such costs.

provisions of the Communications Act so that, among other things, the Commission could permit a protested grant of a new service to become operative and effective even though the Commission determined that a hearing on such grant was required. The UHF-ICC appeared by its counsel before both the House and Senate Committees on Interstate and Foreign Commerce and supported those features of the bill which would give the Commission greater discretion in determining whether a hearing should be held on particular protests, but urged the retention of the existing automatic stay provisions of law or a revision which would permit a protested grant to become effective pending a hearing only where the public interest compellingly or imperatively required institution of service. The reasons urged against the Commission-sponsored proposal were that the present mandatory stay requirements of the protest provisions are most essential to protect the rights of UHF operators who are entitled to a hearing upon Commission VHF grants which result in market straddling, further encroachment on UHF service areas, and monopolistic concentration making it even more difficult for UHF stations to compete with VHF stations. It was pointed out that if such a VHF grant protested by a UHF station could be made effective and operative by the Commission during the period that a required hearing was being held, the hearing would be a virtual futility since the UHF station would be suffering the very injury which caused it to protest and there would be little or no reason for the UHF station to proceed with the hearing, at the great expense involved, under such conditions. The bill, with certain revisions, passed the House but failed to pass the Senate before the summer congressional adjournment, although it was reported out favorably by the Senate committee. The bill will undoubtedly pass the Senate and become law very early in 1956 unless strong senatorial opposition, which is presently unlikely, should suddenly develop.

It was during the hearings before the Senate committee on the protest amendment that further cause was provided for optimism among the UHF operators when it became publicly known that the Commission had decided on a policy of making no VHF grants in cases where deintermixture proposals were pending. During the testimony of Chairman McConaughy, inquiry was made as to whether the Commission was making VHF grants where deintermixture proposals were involved. The testimony was as follows:

"Senator PORTER. But are most of these protests on new grants or extension of facilities?"

"Commissioner DOERFER. Mostly new grants.

"Mr. McCONAUGHEY. Not all of them, but most of them.

"Senator PASTORE. How about in the deintermixture; is that still going on?"

Commissioner DOERFER. Yes.

"Senator PASTORE. Has any policy been promulgated by the Commission as to whether or not it should continue in the public interest?"

"Commissioner DOERFER. We just heard 2 days of oral argument last week.

"Senator PASTORE. Are you granting intermixtures in the meantime?"

"Mr. McCONAUGHEY. Under the sixth report they are; yes, sir.

"Senator PASTORE. Aren't we muddying up this soup a little more?"

"Mr. McCONAUGHEY. We have held up the grants in these cases which have been filed.

"Senator PASTORE. Everybody seems to be of accord here that one of the big problems is intermixture, and yet we go on doing it. At the same time we are investigating it to reach a decision as to whether or not it is good policy to have it.

"Mr. McCONAUGHEY. We have not gone on. We have held them up. In these cases you are acquainted with we have held them up and not issued any grants at all, pending the outcome of the intermixture question" (hearing before a Subcommittee of the Committee on Interstate and Foreign Commerce, United States Senate, 84th Cong., 1st sess., on S. 1648, pp. 43-44).

Throughout the summer, no action was taken on the pending deintermixture proposals or the June 21 petition of the UHF-ICC. Nor was any other significant action taken by the FCC until July 20, 1955. On that date, by a vote of only three Commissioners,³ the Commission adopted a report and order amending its rules, as requested about a year before by a VHF station in Buffalo, N. Y., to authorize VHF stations in zone 1 to operate with increased power over that previously permitted. This development was so shocking that a petition was filed in behalf of the UHF-ICC characterizing this action as literally incredible. It was asserted that it was inconceivable, at this crucial period while the Commission had under consideration measures and proposals designed to eliminate

³ Of the other 4 Commissioners, 1 dissented, 1 refrained from voting, and the remaining 2 were absent.

or minimize intermixture to make it easier for UHF stations to compete with VHF stations, that the Commission could in good conscience take an action which on its face was designed to aggravate intermixture, result in further monopolistic concentration of VHF stations and cause further irreparable injury to the operation of UHF stations. It was urged that rather than increase the power of VHF stations it would seem compelling that the existing superpowers should be reduced.

Because of this and other objections, the Commission later postponed the effectiveness of this rule change four times. Following the action of July 20, 1955, authorizing VHF station power increases in zone 1, no Commission meetings were held from July 27 to August 31 and during this period only routine matters were acted upon. A glimmer of interest in the UHF problem and possible future activity was indicated during the month of September. In nonpublic statements which were nevertheless reported in the trade press, several Commissioners allegedly expressed the need for remedial action. Thus, individual Commissioners were reported to be in favor of less rigid separation standards and the obtaining of more VHF channels from the military. In an internal confidential memorandum which was published in Broadcasting-Telecasting magazine, Commissioner Doerfer, who later opposed deintermixture in an official public opinion, reportedly urged deintermixture of the major markets such as New York City by the assignment of only UHF channels to these communities. The press characterized this position as having been advanced by Commissioner Doerfer with "tongue in cheek."

Funds for a network investigation were appropriated to the Commission by Congress in the budget for the fiscal year 1955-56. This investigation was slow in getting under way. On September 22, 1955, the Commission announced the appointment of a staff director of the investigation and additional staff assignments were made later in the fall. The Commission announced on November 22, 1955, that the network study would concern itself with " * * * the broad question whether the present structure, composition, and operation of radio and television networks and their relationship with their affiliates and other components of the industry tend to foster or impede the maintenance and growth of a nationwide competitive television broadcasting industry." No announcement has been made by the Commission as to the procedure to be followed in the network investigation, namely, whether public hearings are to be held, whether the views of, or information from, individual station operators will be sought, or whether field investigation will be conducted as a means of obtaining pertinent information.

In early October the Commission held meetings to consider the television problem. Shortly thereafter reports were rampant in the trade press and industry circles that the Commission had met in private and secret sessions with some segments of the industry to discuss the UHF problem. It was reported that CBS had privately presented its own allocation plan to the Commission, which would reject all but two deintermixture proposals, and that the Commission had also had closed sessions with NBC and ABC to discuss the same problem. It was further reported that following those meetings, a majority of the Commission had decided to vote against all deintermixture requests.

Alarmed at this development, many UHF operators expressed concern that the rumored action would have devastating results to the entire UHF cause, unless prompt steps were taken. On October 10, 1955, the Chairman of the UHF-ICC sent a telegram to each Commissioner stating in part that:

"In all justice any critical decision which may further aggravate the plight of those who are most vitally concerned ought not be taken without equal opportunity to them to be heard. * * * We believe that the proper manner in which the substantive questions should be considered is by open hearing and argument * * *"

Further, it was requested that the Commission meet with UHF operators to hear their views. That request was granted and on October 13, 1955, 45 UHF permittees and operators who came to Washington from all over the country for the meeting with the Commission met to decide on a course of action in the light of the recent developments. A statement was prepared for presentation to the Commission and on the following day, in meeting with the Commission, the Chairman of the UHF-ICC reiterated "that it would be a serious blow to a nationwide allocation plan and grossly unfair to the UHF operators * * * if without further proceedings, any direct or indirect action is taken which would, in practical effect, make future deintermixture or any effective alternate remedies difficult or impossible." Further, it was stated that "All views on these grave problems should be made by formal, public proceedings in order that other interested

parties may fairly address themselves to those recommendations. It is only in this way that problems that are most critical to the survival of many television stations throughout the country can be fairly resolved."

On October 17, 1955, pursuant to the action taken at a general meeting of the membership following the meeting with the Commission, the UHF-ICC filed a further petition with the Commission urging withholding of action on VHF grants pending determination of general rulemaking proceedings having the objective of a nationwide competitive television service. In that petition the UHF-ICC stated that:

"It is clear that the only sound way in which the Commission can properly resolve these questions is to institute broad rulemaking proceedings in the light of the many pending proposals for the solution of the problem, including not only the deintermixture proposals but the other various alternative and complementary proposals. Accordingly, it is requested that the Commission immediately institute such broad rulemaking proceedings setting forth its views and proposals in the light of the foregoing. Pending disposition of those proceedings, it is requested that the Commission take no action by way of granting authorizations and modifications of authorizations where the effect of such action would worsen or aggravate intermixture of UHF and VHF stations, and thereby render moot the many pending petitions for deintermixture."

The optimism among UHF operators engendered by the encouraging public pronouncements of the Commission in the spring and summer of 1955 was completely shattered by the about-face developments of the next few weeks. Initially, no specific actions were formally announced publicly by the FCC, but discouraging reports of unannounced Commission votes and actions appeared in the trade press. Thus, it was reported that on November 2, 1955, the Commission voted on the deintermixture proposals in Commissioner Bartley's absence, and had decided, by a vote of 4 to 2, Commissioners Hyde and Webster dissenting, to deny all deintermixture petitions, but, at the same time, to drop VHF channel 10 into Vail Mills, a locality having a population of approximately 250 persons. However, according to reports, Commissioner Bartley, who, at the time the matter was called up for a vote, was away from Washington, insisted that action be withheld until he could have an opportunity to be present and participate. It was next reported that a special meeting with all Commissioners present was called for Saturday, November 5, but action was deferred until Commissioner Mack (who had not yet been appointed to the Commission at the time oral arguments had been held) could familiarize himself with the record in the deintermixture proceedings.

On November 10 the Commission formally announced a series of actions which blacked out the last vestige of hope for early Commission remedial action assisting the UHF cause. Those actions were as follows:

1. In a 5-to-2 decision, with Commissioners Hyde and Bartley dissenting, the Commission denied the requests for deintermixture in the pending rulemaking proceedings in Peoria, Evansville, Madison, and Hartford, and summarily denied 30 other pending petitions for deintermixture and other relief.
2. In a 4-to-3 vote, with Commissioners Hyde, Bartley, and Webster dissenting, the Commission dropped in channel 10 in Vail Mills, N. Y.
3. By unanimous vote the Commission instituted overall rulemaking proceedings, requesting comments and data to serve as the basis for further rulemaking proceedings.

In addition, during the same week that the foregoing actions were taken, in the words of Television Digest, "another UHF hope, along with deintermixture, was dashed" by the Commission's rejection of the 5-mile rule which it had previously proposed to adopt as one of the measures to assist UHF.

It was made perfectly clear in the decisions released on November 10, 1955, that the purpose of these actions was to unleash actions making grants to VHF applications on which the Commission had previously committed itself to withhold action until the problem of deintermixture had been disposed of on its merits. Accordingly, shortly after November 10, numerous efforts were made by UHF stations to prevent such precipitous Commission action. UHF stations filed petitions with the Commission asking leave to intervene in the VHF contested proceedings, to withhold action on the grant of the applications pending resolution of the rulemaking proceedings, and to consolidate the rulemaking and application proceedings. At the court level, two UHF stations petitioned for review of the channel 10 drop-in in Vail Mills and asked the court to stay the effectiveness of that order. On December 9 the United States Court of Appeals for the District of Columbia granted that request and stayed the effectiveness of the drop-in of channel 10 to Vail Mills.

The Commission, nevertheless, soon proceeded to make final VHF grants in Corpus Christi, Madison, and Evansville. UHF stations in those cities promptly appealed those actions and requested the court to stay those grants. Decisions by the court on the requests for stays will very likely be made during the week of January 9, 1956. These decisions will have a profound effect upon the entire UHF problem. Depending upon which way these decisions go, many UHF stations still in operation may survive until the Commission's general rulemaking proceedings are concluded, or may succumb under the competition of the additional VHF operations which will commence throughout the country.

On November 18, 1955, the UHF-ICC filed a petition to set aside the Commission's report authorizing higher power for VHF stations in zone 1, pointing out that in view of its action instituting rulemaking proceedings it would now be most arbitrary to permit that proposal to become effective. The Commission on November 30, 1955, vacated that report, but in doing so appended an exception the effect of which would permit a single station in the entire country, namely, the VHF station in Buffalo, N. Y., which originally urged the power increase, to increase power above the maximum. The UHF-ICC thereupon filed a petition with the Commission, which is still pending, in which it attacked that exception as arbitrary and discriminatory.

On December 14, 1955, the Commission consolidated in the pending general rulemaking proceedings the UHF-ICC's petitions of June 21, 1955, and October 17, 1955, except for those portions of such petitions which requested withholding of action on VHF grants which would aggravate intermixture.

The UHF-ICC filed its comments in reply to the Commission's notice of proposed rulemaking. The UHF-ICC reiterated the views previously expressed and urged upon the Commission, stating that events since the Potter committee hearings have vindicated its judgment. Since the Commission has, however, steadfastly refused to entertain proposals for the assignment of all television stations to the UHF portion of the spectrum only, the UHF-ICC advanced other and alternative proposals in the hope that the Commission might take some action to correct and alleviate existing conditions in the broadcast television service. Three specific actions were recommended:

(1) Forthwith resolve pending proposals looking toward the elimination of intermixture of UHF and VHF television assignments by severing the question of selective deintermixture from the overall proceedings. Immediately grant the requests for deintermixture which have been the subject of rulemaking proceedings and immediately institute separate proceedings on the remaining deintermixture requests.

(2) The assignment of television stations at lower separations than those presently provided by the Commission's rules in order to provide additional facilities for the establishment of multiple local outlets and services. One factor which is absolutely critical to the implementation of the foregoing proposal in the public interest is the assignment of such additional stations in the VHF spectrum only where such additional assignments would not adversely affect the operation of any UHF station.

(3) The adoption of the single-market concept and the confinement of stations to their own community by the revision of the existing rules so as to permit the utilization of maximum power only on a special affirmative showing that the public interest will be served thereby: It was recommended that the Commission revise its rules to limit the permissive range of maximum power to 50 kilowatts for channels 2 to 6, and 100 kilowatts for channels 7 to 13, and that authorizations for operation with power in excess of the foregoing but not more than 100 kilowatts for channels 2 to 6 and 316 kilowatts for channels 7 to 13 not be granted unless it can be shown that television service to specific areas would not otherwise be available from any station operating with the maximum power.

Approximately 200 comments were filed. The most significant fact to emerge from the filings is the virtually complete unanimity of opinion shown in support of sweeping revisions of the allocations rules and standards. In addition, powerful support was won for some of the basic principles for which the UHF-ICC has been contending since its inception. Thus, for example, General Electric urged the consideration of an all-UHF system; RCA and NBC gave support to deintermixture. It urged that careful consideration be given to reduced separations by use of directional antennas, low power, et cetera. The only major broadcast interest which refused to lend any significant support to deintermixture was CBS which ironically, not only conceived the term "deintermixture," but warmly embraced it as a solution during the Potter hearings.

Reply comments are due to be filed on January 20, 1956. The nature of the reply comments which will be filed by the UHF-ICC will be determined upon completion of the study of the multitude of initial comments which have already been filed.

The most recent action of the UHF-ICC related to the matter of extension of outstanding UHF permits. During the year 1955, the Commission made it known that its existing liberal policy of extending UHF permits would be reconsidered in early January of 1956. On December 23, 1955, in an effort to assist UHF permittees who, although not in operation, desired to continue to retain their permits, the UHF-ICC filed a petition with the Commission urging the Commission to continue the previous liberal policy until the determination of the pending allocation rulemaking proceedings. At this writing, no action had been taken by the Commission upon this petition.

No congressional hearings have been held with respect to the critical UHF problem since the spring of 1954 when the Potter hearings were held. Subsequent to the issuance of the reports of the majority and minority counsel of the Senate Interstate and Foreign Commerce Committee in the early part of 1955 a number of public statements emanated from that committee indicating that the UHF problem would be further investigated by the committee. Because of the resignation of counsel, new counsel was appointed in the early spring, who remained for a few months only. After this post had been vacant several months, it was recently filled by a new appointment. Throughout the year, it was made known that certain investigations were being made by the committee staff and that hearings would be held. However no hearings were held and no further tangible recommendations or actions were forthcoming from the committee throughout the balance of the year 1955 except that during the summer the Senate committee organized an ad hoc engineering committee to study possible technical solutions to the existing serious television allocation situation. No recommendations or actions have been forthcoming from this ad hoc committee and there have been no reports as to its activities.

Upon the return of Congress in the early part of 1956, it was indicated that hearings would definitely be begun by the Senate Committee on Interstate and Foreign Commerce on January 17, 1956, at which the FCC Commissioners would be called and questioned concerning the entire television allocation situation with particular reference to the seriousness of the UHF problem and the failure of the Commission to take any remedial action.⁴ It is understood that individual UHF operators will be afforded the opportunity to appear before the committee at a later time. It is, of course, the intention of the UHF Industry Coordinating Committee to appear in these hearings through its officers or counsel, as well as such UHF broadcasters who are interested in testifying, to make as vigorous a presentation as is possible in behalf of UHF operators throughout the country, and to urge prompt action revising the present television allocation plan so that nationwide competitive television service by means of equal competitive facilities for television broadcasters will be made possible.

Mr. THOMAS. A careful effort was made to make this report purely factual. I am sure you will find that the mere recitation of the factual history of the UHF problem attests more eloquently than any commentary or argument the disappointing record of past governmental inaction, and the great necessity for prompt and effective relief.

I will not now take your time by reading that history, although I strongly urge the members of this committee to do so. I think it will be very helpful, however, to point out some of the salient matters in that history. One of the salient features of this past history is the deintermixture story. It is to this committee's credit that the desirability of considering selective deintermixture was urged upon the Commission in the report of its former majority counsel. Deintermixture had received considerable attention during the course of the past hearings. Deintermixture makes obvious good sense and clearly serves the public interest.

⁴ Because of the sudden death, on January 14, 1956, of the chief counsel to the Senate Committee, the hearings have been postponed to January 26, 1956.

Shortly after the conclusion of the subcommittee hearings a stream of petitions were filed by individual operators in particular markets, seeking relief by deintermixture. Actually such petitions were encouraged because of assertions made by the Commission Chairman to this committee, and other public statements, as well as assertions by the Commission itself.

Today, a score of months later—after initial denials by the Commission—reconsideration—further rulemaking—the Commission has denied all deintermixture proposals. The Commission stated that the reason for the denials is that it is considering the problem as a part of the overall UHF problem, and that deintermixture is part of the nationwide problem. But no explanation has been given to this committee why it suddenly became a nationwide problem a couple of months ago. Indeed, the only reason for the Commission's consideration of deintermixture "on a selective basis" was that nationwide reallocation was considered undesirable.

It is hard to believe that there was any other reason for the Commission's action than the desire to make VHF grants in areas affected by the pending deintermixture petitions, and to get around the commitment to this committee that until the deintermixture petitions were disposed of, such grants would be held up.

In any event, the Commission's position simply makes no sense. Deintermixture—by definition—is the assignment of VHF or UHF channels in selected areas. To assert that deintermixture in selected areas can only be considered on a nationwide basis is not merely unconvincing—it is silly. In the recent testimony before this committee by the Commissioners, you have been given a number of additional reasons why the majority felt it to be undesirable to grant the deintermixture petitions. One reason is the danger that rural areas will remain unserved if a VHF station is not authorized.

I am informed that in at least two of the deintermixture situations turned down by the Commission—Evansville and Hartford—it was undisputed that no area would be denied or lose service if the communities involved were made all UHF. Also, in the other situations turned down, all of the UHF operators involved were willing to commit themselves to increase their coverage by increasing power so as to remove any doubt that certain rural areas which would receive a first service from the VHF station in question would be assured of such service from the existing UHF stations. Moreover, as I will point out below, the claim of the need for superpower, supercoverage VHF stations in order to assure service to rural viewers is the age-old argument always used by the clear-channel lobby and is one which has never been convincing to this committee.

In a second significant, through somewhat less important, area, we have witnessed the same spectacle of the Commission marching up the hill and then right back again. In March of 1955 the Commission instituted rulemaking proceedings looking toward the amendment of its rules to limit the location of station antennas to within 5 miles of the principal city to be served, unless strong public interest reasons to the contrary were shown by the applicant.

In its report to this committee, later in the month of March, the Commission pointed with pride to this proposal as a measure which would benefit UHF stations. In its notice, the Commission recognized that the mandate of the Communications Act for a fair, efficient, and

equitable allocation plan required that such limitation be observed unless such reasons were clearly shown. The proposal did not purport to make the 5-mile limit a hard and fast rule, but only used a mileage limitation as a convenient yardstick. The rule, if adopted, would still have required a case-by-case consideration. It would have also required that the applicant make an affirmative showing of facts or reasons why the public interest would be served by such a distant location. This is something which the Commission does not today require an applicant to show. That rule would have prevented applicants from moving their transmitters tremendous distances away from the home community, without showing anything more than the technical engineering fact that from such distance the home community would receive a bare minimum required signal.

Almost simultaneously with its rejection of deintermixture, the Commission threw out the proposed 5-mile rule, stating it would consider distant locations of transmitters on a case-to-case basis. The Commission's case-by-case consideration of applications involving distant VHF transmitter moves have played a substantial part in the worsening of the UHF problem. Such moves are commonly referred to as "market-hopping" or "market straddling."

The Chairman of the Commission testified here the other day that it was "a correct statement" that the Commission has a policy of favoring the location of transmitter sites within some reasonable distance of the community to which it is allocated. He also said that it "sometimes is true" that "the establishment of transmitter sites to remote locations results in describing the market so that the station which was allocated to city A ends in duplicating in part a station or channel allocated to city B."

But the fact is that, despite the apparent recognition of the desirability of limiting stations to a reasonable distance from their own "home" communities, the Commission has nevertheless merely given lip-service to this proposition. For in its day-to-day actions it has regularly permitted the location of station antennas at far distant points from these communities, without concern for the fact that such moves aggravate intermixture and further jeopardize the existence of UHF stations.

Senator PASTORE. Would you explain that by giving an example?

Mr. THOMS. I have an example following.

Senator PASTORE. All right.

Mr. THOMS. The fact is, as proven by actual results, that such moves have driven UHF stations out of existence. Let me mention two known instances to date. UHF television station KCEB in Tulsa, Okla., was forced off the air and another permittee never constructed, as a result of the location of VHF station KTVX 23 miles from Muskogee, the community to which the channel was assigned, to a point closer to Tulsa than to Muskogee.

UHF station KNUZ-TV, Houston, Tex., was forced off the air chiefly because KGUL-TV, a station assigned to Galveston, was permitted to locate its transmitter close enough to Houston to make it a Houston station for all practical purposes. Recently, with two Commissioners dissenting—Chairman McConnaughey and Commissioner Lee—the Commission authorized a further transmitter move by this same Galveston station to a location even closer to Houston.

Senator POTTER. Isn't it true by doing that the UHF station that has a network affiliation normally loses its network affiliation?

Mr. THOMS. That is right.

Senator POTTER. If you have a UHF station in a market maybe with one V, and they have a network affiliation, and you move in another VHF station that covers that market, the UHF will lose its network affiliation to the VHF. Isn't that true?

Mr. THOMS. To the encroaching station.

There are now pending before the Commission other proceedings, on protest or objections from UHF stations, involving VHF transmitter moves. One case involves a pending move of a VHF station in Charleston, W. Va., to a point closer to UHF station WTAP in Parkersburg, W. Va. Another pending case involves a proposed move of an Enid, Okla., station to a point closer to Oklahoma City than to Enid. In another case, an examiner has issued an initial decision in which he actually found that a proposed move of a station assigned to Flint, Mich., to a point which would be closer to Saginaw than to Flint would not only put UHF station WKNX in Saginaw out of business, but would also destroy a small market VHF station located in Cadillac, Mich.

Still another case is the celebrated Spartanburg case with which this committee is familiar. It is, of course, not known whether in any or all of these pending cases the Commission will see fit to authorize the proposed transmitter moves involved, but it is to be hoped that the Commission agrees with its Chairman that the Commission's policy favors the location of transmitters within some reasonable distance from the "home" community.

In still another area, the Commission's efforts in the direction of remedial measures which would benefit small market stations, whether they be UHF or VHF, appear to have stalled. On September 15, 1954, 2 months after the hearings before your subcommittee, the Commission issued a notice of proposed rule-making, looking toward the authorization of private microwave intercity relay stations. That relief was urgently required, in view of the crushing burden of exorbitant cable cost required to be paid to the telephone company.

It was apparent that such a rule change was necessary so that stations, and particularly stations in small markets, would be able to continue to exist. Seventeen months have elapsed, however, and that proposal still remains unacted upon by the Commission. The Commission has advised this committee, however, that it expects to have some action on this in the near future. To the credit of the Commission, it is true that the Commission has in recent months been liberal in authorizing television broadcasters to have been their own private microwave relays, despite the strict requirements of its present rules. But such a liberal policy is not an adequate substitute for a rule, upon which broadcasters can rely, which will better guarantee them the right to obtain and continue to hold authorizations to operate their own facilities.

So far I have been discussing the Commission's failure to adopt amendments of its rules which might affirmatively benefit UHF stations. Let us look at the other side of the coin and examine measures which the Commission has been willing to adopt but which would aggravate the serious plight of UHF stations and further entrench large market VHF stations in a more favorable competitive position.

From June 1954 to July 1955, no action of any importance was taken by the Commission with respect to pending measures which would alleviate the UHF problems. By July 20, 1955, the five pilot deintermixture cases had been concluded, argument having been held on June 27 and 28. Those cases as well as some 25 other petitions for deintermixture were pending decision on July 20, 1955, when the Commission, by the bare vote of only 3 to 1, adopted a report and order amending its rules to authorize VHF stations in zone I to operate with greater power than was previously permitted under its rules.

As the UHF Industry Coordinating Committee stated in a formal petition, this was a shocking and incredible action. The Commission later suspended the effectiveness of its rule, but it nevertheless wrote an exception into its existing rule which would permit only a single station in the entire country, station WBEN, Buffalo, owned by the Buffalo Evening News, to increase its power even beyond the existing superpower limits to which other stations were subject. The further significance of this action is that station WBEN pleaded for this exception upon the ground that it had voluntarily located its transmitter about 25 miles away from the city of Buffalo before the freeze with the hope that the Commission would later adopt rules permitting greater power and antenna heights than it did.

As a result of having placed its transmitter so far away from Buffalo, it found that when a new VHF station was granted for Buffalo which located its transmitter within the city of Buffalo, the quality of its own signal in Buffalo suffered by comparison. Therefore, it pleaded hardship on the ground that it had been disappointed in its hopes. The Commission bought this plea, and created for the benefit of WBEN-TV the sole exception in the entire Northeast section of the country to the existing power and antenna height limits.

Senator PASTORE. How did that affect the UHF station?

Mr. THOMAS. I frankly am not familiar enough with the situation up there to answer that question. Maybe Mr. Cottone can.

Mr. CORTONE. Senator Pastore, the authorization for the increased power meant the VHF stations could further enlarge their markets; and in a situation where a VHF station was to be able to increase its coverage with respect to a UHF station that might be in that same community, the competitive disparity was therefore increased. In addition, where a UHF station might be in an adjoining community, it would result in further overlap of the signal of the UHF station, a further encroachment on the market of the UHF station, putting it in an even more disadvantageous competitive position.

Senator PASTORE. Is that a theory or is that a fact?

Mr. CORTONE. I think it is an actual fact. We have heard here that one of the serious problems that UHF stations have to contend with is the fact that VHF stations have such tremendously greater coverage and therefore become more desirable—

Senator PASTORE. I realize that, of course. When you increase the power, you disturb someone else, of necessity. But the argument was made that first they initiated this rule in zone I about increasing power. I think the Chairman of the Commission said it was revoked. I think the argument that is being made here is that it was revoked only after Buffalo had been granted more power.

Mr. CORTONE. That is right.

Senator PASTORE. I would like to know what effect did this grant have in the Buffalo instance that lends credence to the weight of his case. That is the point I make. If you can be specific in that, I would appreciate it.

Mr. COTTONE. It does it in this way. The basis for the exception is one that cannot hold up as against similar claims that might be made by every other single VHF station in zone I. Already the Commission has been confronted with requests by other stations in zone I to make a similar exception or to expand the rule, to enlarge the rule, so that they are not put in a more discriminatory position, so that they are not discriminated against by having the rule apply only to this single situation.

Senator PASTORE. Therefore the argument that you are making here is that the instance of Buffalo should not be taken as a precedent.

Mr. COTTONE. But it can very well be used as a precedent. By virtue of the fact that they have permitted it one case, in effect the Commission is virtually forced on any long-range consideration of this question to do likewise for every other single VHF station in zone I.

Senator POTTER. Is there a UHF station in that market?

Mr. COTTONE. There was a UHF station. There still is. It was purchased by NBC.

Senator POTTER. Do they have a network?

Mr. COTTONE. By that time, the UHF station had, I believe, lost its network; but it may have had an ABC affiliation. The UHF station was WBUF-TV in Buffalo.

Senator POTTER. That is an NBC station?

Mr. COTTONE. It is now an NBC station.

Senator POTTER. So they do not have to worry about losing the network.

Mr. COTTONE. They do not have to worry about losing the network.

Senator POTTER. If they were a privately owned station, however, with this new station coming in—and two VHF's covering the Buffalo market—they might have a difficult time holding the network.

Mr. COTTONE. Yes. I do not know in this particular instance that it was critical to any particular UHF station, but it was the chain reaction effect that an authorization of this type was likely to have. It could spread all over the country and affect UHF stations that were already in serious condition as a result of being in the shadow of large VHF stations from other markets.

Senator PASTORE. I am not finding fault with the argument that is being made by the witness. I merely want to know what the point is. The point of the argument is what I was trying to get at, whether or not you, representing the UHF operators, are taking the position that this one exception has done some injury to some existing UHF facility in that region—merely to specify it on the record. Your answer is you do not know of any offhand?

Mr. COTTONE. I do not think it can fairly be stated that in that particular instance there was any injury. But the point of this recital, however, also is the fact that the Commission during this period, when it was presumably considering the feasibility of deintermixture, when deintermixture petitions were pending, the Commission's disposition was one to put out a proposal of this sort which was of course later suspended. And right in the very middle of this consideration,

this deliberation on deintermixture, the kind of a proposal could have no other effect but to aggravate—that kind of a change in the rule could have no other effect but to aggravate—intermixture even more.

Mr. THOMAS. I have attempted to cover only some of the salient facts and events which stand out in the history that has brought UHF to its present state. This record of inaction and adverse action was maintained and taken by the Commission in the face of repeated and insistent pleas for immediate effective action. Petition after petition was filed by individual UHF stations and by the UHF Industry Coordinating Committee asking that such action be taken. But these requests were either rebuffed or ignored. Included among these requests was the petition of the UHF Industry Coordinating Committee filed on June 21, 1955, which requested the immediate institution of proceedings looking toward the amendment of the Commission's rules to authorize the assignment of VHF stations at reduce mileage separations upon a showing that the public interest would be served thereby.

It was also requested that the Commission in the following 90-day period resolve pending proposals looking toward the elimination of intermixture of television assignments, and that the Commission withhold for at least 90 days the grants of authorizations and modifications in every case where such authorizations would result in the aggravation of intermixture of UHF and VHF stations. As has been pointed out above, the Commission ignored such requests but was quite ready, 1 month later, to take the action which I have described increasing VHF station coverage in zone I, with only four Commissioners voting, and thereby actually creating a condition which could only further aggravate intermixture and make the plight of UHF stations even worse.

Although no action was taken on the petitions of the UHF Industry Coordinating Committee and others, it nevertheless appeared on the basis of the testimony by Chairman McConaughy before your committee in connection with the revision of section 309 (c) that the Commission would withhold grants of VHF stations in areas where there were pending proposals for deintermixture. But the fact is that, although the Commission now says that such proposals have not been denied by the Commission on the merits, the Commission has proceeded to make VHF grants in such areas.

I have the greatest difficulty in following the Commission's explanations on this point. I would assume that if it was necessary and proper for the Commission to hold up those VHF grants because of the pendency of the deintermixture petitions at the time the Commission was urging enactment of section 309 (c), it was equally necessary and proper to do so when it decided in November to deny the deintermixture petitions without prejudice. Nor can I understand how the Commission, when it was urging enactment of the amendment of section 309 (c), could urge the sufferings of the public if a station were to be permitted to go on the air and then taken off, and not be equally concerned when it made the VHF grants in the face of its own recognition of the fact that later, if deintermixture were adopted, the public would have that service taken away.

The Commission has said, however, that in such a case the public would not lose because the VHF grantee would then get a UHF channel. But the Commission conveniently ignores its own argument that one reason for making the VHF grant was to reach areas which the

UHF stations would not reach. If that is true, then how can the Commission say that if deintermixture is later ordered, that part of the public will not suffer, just as in its section 309 (c) argument?

Senator PASTORE. Referring to the argument you have made previously, why couldn't the Commission give the UHF station, in that instance, more power and cover those members of the public involved in this argument you have just made?

Mr. THOMS. It could.

Senator PASTORE. Would not that be the answer to it if, later on, let's assume, they change the VHF station to a UHF station and the question arises as to whether or not such a station would reach the distance? They could increase the power, could they not?

So the record will be clear, counsel says that that is up to the station and not up to the Federal Communications Commission. Why couldn't the Commission make it a condition in changing to VHF—or UHF in that particular instance—by making it a condition upon the increase of power?

I don't see any objection on the part of the station in that event. Do you get the point I make, Mr. Thoms? The argument that you are making now is this: One of the arguments why the VHF should be granted by the Commission is that the Commission takes the position that the VHF will reach these distances ordinarily not being covered by the present UHF stations in that community.

Mr. THOMS. Right.

Senator PASTORE. And that later on, when the UHF is substituted for the VHF on this deintermixture proposition, then they would have a hiatus in this distance that was covered by the VHF grant.

The argument that I make is that when they did change it from VHF to UHF, they could increase the power of the UHF station; thereby you wouldn't have that difficulty at all.

Mr. THOMS. Right.

Mr. Cox. Is it your opinion, Mr. Thoms, that in every case the U can, by increasing its power, provide equal coverage to that which may have been afforded by the V?

Mr. THOMS. I would not say in every case. I think it depends a lot upon terrain. In mountainous country, you simply cannot overcome completely the handicap of UHF with additional power.

Mr. Cox. In those areas, then, would you get this problem of previous service which had been afforded under Commission authorization?

Mr. THOMS. That is right.

Senator PORTER. I believe we have had testimony that the antenna height is more important than the power.

Mr. THOMS. That is right.

Mr. COTTONE. Senator Pastore, may I address myself to the question of the authority of the Commission with respect to conditions. I believe it was asserted here that there is doubt as to the authority of the Commission to condition a grant so that the grantee may be required to serve greater areas than he is proposing.

I personally do not believe that there is any question as to the Commission's authority to do that, and I think we have had many instances in the past—in connection particularly with channels that have been assigned to the United States under treaties where they are permitted to be used to a certain maximum power—where the

licensee has not utilized that channel to the fullest extent of the power permitted under the treaty, and the Commission has taken the position that the licensee must make a more efficient use of the channel that was contemplated—in other words, in effect requiring the licensee to increase its power. That is not, as I see it, a common-carrier concept.

Senator PASTORE. I realize that. But I have something else in mind. When the applicant for a VHF station files his application, which will result in intermixture in a locality that is already being serviced by UHF, he predicates that petition upon the ground that the VHF will serve a wider area.

Why can't the Commission at that point say: "In the consideration of this, and because we are getting into a nationwide rulemaking as to deintermixture, we will grant you this VHF station to allow you to service this wider area—provided, however, that should we later deintermix and compel you to take a UHF channel, you will apply for a UHF station that will give the same coverage"?

Mr. COTTONE. Yes, I agree with that. The point made here, however, Senator, is the consistency of the argument that you should not permit intermixture because there is a danger that rural areas would not be served. If the VHF might later go off the air, by that very same argument the part of the public in the rural areas who have not converted will lose that service. So the argument cuts against the reason given for denial of deintermixture. That was the only point that was made here—that there will be a later loss of service to the public if the Commission's argument is a sound one.

Senator PASTORE. How do you answer the argument that, under the Sixth Report, it was the policy of the Commission to grant these allocations that were already made, and that have not yet been changed, even in spite of the fact that we did have other reports?

What answer do you make to the argument that here is the public that wants this service, and wants this third station to come in, without regard to whether it is UHF or VHF, because in many instances where you already have an UHF area they can tune in VHF as well as UHF?

What argument do you make to the Commission that, after all, in the public interest this is being asked for, and they have no alternative but to grant it in the public interest?

Mr. COTTONE. The answer is that that is a short-range view of the public interest, if it is true that to permit that situation to develop is going to result in driving out existing UHF stations, and the contraction of the number of outlets that there are in the country for rendering service to the public.

If that be true, then the long-range public interest requires that the Commission reconsider the determination that it once made upon what it believed to be a different set of facts. That is the argument. It is the question of the long-range public interest. It may be true that there may be immediate, but possibly fleeting, benefits to the public; but if it is true that the long-range public interest requires a nationwide competitive service, and an individual action results in throwing impediments in the way of that goal, then the long-range public interest does require that the Commission should take a look at the situation and see if it should not try to avoid that result.

Senator PASTORE. In other words, what you are saying, Mr. Cottone, is this. Where you already have two UHF stations, by allowing a VHF station to come in, you want to give the people three chances. But unless those original 2 can live with the 1 V, you might ultimately have only 1 station because the 2 U's just may go out of business.

Mr. COTTONE. That is precisely the argument that was made in the intermixture petitions, sir.

Mr. COX. And the third station that was sought can be provided by substituting the U for an allocated V channel; is that correct?

Mr. COTTONE. Yes, I believe that is correct.

Senator PASTORE. In the instance we have been talking about, could the Federal Communications Commission have allowed a third UHF station right there and then?

Mr. COTTONE. Oh, yes. I believe there were channels that could readily have been assigned to those communities. I cannot answer the question as to whether there were allocated UHF channels that had not been applied for. There may very well have been in these cases. I am not sure whether in the Evansville case it would have been necessary to find a UHF channel to put in in place of the VHF channel. But concededly there was no particular problem on that score.

Mr. COX. That is, the UHF channels are plentiful now?

Mr. COTTONE. Yes, the UHF channels are relatively abundant.

Senator POTTER. There is no problem, then, in reality, in reallocating a UHF channel for a specific community.

Mr. COTTONE. That's right.

Senator PASTORE. Let us take the Hartford case, for instance. Would there have been any difficulty at all in the Commission giving the people of Hartford a third channel there and then, even if it had to be UHF?

Mr. COTTONE. The proposals that were made in that very proceeding, Senator Pastore, did provide, by several different alternative plans, for the substitution of UHF channels that would be available. There was no question drawn, as I understand it, as to the availability of UHF channels.

I must say that in the New England area, it is a little bit more difficult. But it is not impossible. The channels are available and the engineering that was done there did indicate that UHF channels could be allocated.

Senator PASTORE. The reason why I am bringing this up is—I regret I was in transit this morning—I understand a witness appeared here this morning, a Mr. Storer, who suggested that we have a third VHF station in Providence. I called that to the attention of Mr. Doerfer. That is very refreshing news to me.

Mr. COTTONE. I might point out the UHF Industry Coordinating Committee had nothing whatsoever to do with Mr. Storer's statements.

Senator PASTORE. It is good news to me.

Mr. COX. I would like some clarification on your basic argument. Is it your position that it is fallacious to claim that granting the first V in Madison or Peoria is going to provide a first service for some people who are not now served either from U stations in those areas or from V's in other communities? Or is it your argument that it is unfair to give them this service if the Commission is thinking of later taking it away?

Mr. COTTONE. I think the argument comprises both. Part of the argument that Mr. Thoms has just read merely is in effect a pointing out of the inconsistency of the Commission's position.

Mr. COX. I appreciate that.

Mr. COTTONE. I do not believe it has necessarily been established, as a matter of fact, in this very proceeding—which is the only one upon which a record was made, with the five pilot deintermixture cases. But in those cases there was possibly a basis for a finding by the Commission that if there was a possibility of the UHF station not being able to reach areas that the VHF stations could reach, that could readily be taken care of. These were facts on the record. Commissioner Doerfer, I believe, stated the other day that he questioned those things, those facts. But they were facts of record.

In the situations where there was a doubt as to whether the UHF stations presently reached those areas—and I do not know that there was any more than one case where that question did arise, as to whether the white area would be greater, so to speak—there were commitments that were made on the record by the existing UHF stations that, if the cloud and uncertainty as to the possible advent of the VHF station into this community were removed, these people would be perfectly willing to invest more money and expend funds in enlarging their facility to reach the areas where conceivably service might not otherwise be provided. There were such commitments on the record of these proceedings.

Senator PASTORE. Mr. Thoms, you may proceed.

Mr. THOMS. There is a bitter irony in the situation in which we find ourselves today in the television field. We have had experience in the AM and FM field which should have steered television away from the same pitfalls. Unfortunately, the lesson taught by history has not been learned.

The members of this important Senate committee have traditionally been cognizant of the dangers of superpower, supermarket stations in the field of radio, and have frequently openly expressed their abhorrence of a radio broadcast system based on such a monopolistic concept.

On June 13, 1938—

Senator PASTORE. May I interrupt you just for a moment, Mr. Thoms. Do you desire—because if you so desire I think your desire should be paramount—to read the rest of this statement? It is now almost 20 minutes to 1 o'clock. You cannot possibly finish another 4 or 5 pages much before 20 minutes or so.

Mr. THOMS. I will be glad to come back.

Senator POTTER. I think we might just as well leave now and come back at 2.

Senator PASTORE. Why don't you finish the paragraph and then we will stop there.

Mr. THOMS. On June 13, 1938, when determined efforts were being made by clear-channel stations to obtain greater power and coverage, the Senate passed a resolution opposing the operation of AM stations with power in excess of 50 kilowatts (S. Res. 294, 75th Cong., 3d sess., vol. 83, Congressional Record, pt. 8, p. 8943).

Ten years later, when the danger of increased power for clear-channel stations again became acute in connection with the Commission's pending rulemaking proceedings, a bill was introduced by

Senator Ed Johnson in the 80th Congress to limit the power of AM stations to 50 kilowatts and to open the way to duplication of clear channels (S. 2231, 80th Cong., 2d sess.).

Extensive hearings were held by this committee on that bill. Prior to the commencement of those hearings, as Senator Magnuson will recall, this committee, which was then under the chairmanship of Senator Wallace White and the acting chairmanships of Senator Charles W. Tobey, by unanimous action requested the Commission to withhold action in its clear-channel proceedings until the completion of the congressional hearings (hearings before the Committee on Interstate and Foreign Commerce, U. S. Senate, 80th Cong., 2d sess., on S. 2237, pp. 2-4).

Senator PASTORE. We will pause at this point and we will resume again at 2 o'clock this afternoon.

(Thereupon, at 12:40, the committee recessed, to reconvene at 2 p. m., of the same day.)

AFTERNOON SESSION

Senator PASTORE. All right, Mr. Thoms.

Mr. THOMS. I would like to go back for just 1 minute to the question that came up this morning about the increase in power, and so forth, and what it does to existing UHF stations.

Senator PASTORE. You mean you are talking now about the Buffalo incident?

Mr. THOMS. For one, and Atlantic City, I guess, is the outstanding example of where—when power increases went into effect in Philadelphia—it put the UHF station in Atlantic City out of business.

In Buffalo we were not sure about that this morning. There was another U that went out of business in Buffalo besides the UHF that was bought by NBC.

Mr. Cox. That was before the increase in power, I take it?

Mr. THOMS. That was before the increase in power.

Mr. Cox. Do you want to go ahead with your statement?

Mr. THOMS. One year later, Senator Ed Johnson made a speech on the floor of the Senate designed to defeat the further efforts of the clear-channel lobby to perpetuate and increase the monopolistic grip on the broadcast industry threatened by superpower clear-channel stations. The dangers to a nationwide competitive broadcasting system were vividly and eloquently described by Senator Johnson. The principal argument of the clear-channel lobby was that superpower was needed to serve the farmers. Senator Johnson demolished that argument with devastating logic, and he was supported by the present chairman of this committee, Senator Magnuson. The ironic thing is that today we find the Commission leaning on that same age-old argument of the clear-channel lobby, as the reason for its hesitation to provide a greater number of smaller and equal television facilities.

I would like at this point to refer you to a portion of a very pertinent colloquy between Senator Johnson and Senator Magnuson which occurred during the speech of Senator Johnson to which I have referred. It is attached to my statement as an appendix.

(The document referred to is as follows:)

SELECTIONS FROM A REPORT ON COMMUNICATIONS—SPEECH OF HON. EDWIN C. JOHNSON OF COLORADO IN THE SENATE OF THE UNITED STATES APRIL 20, 1949

Mr. JOHNSON of Colorado * * *

Originally this country had 46 clear channels. But as the need grew for additional local and regional stations, the Commission began to duplicate clear-channel frequencies, placing additional stations on the same channel but sufficiently distant apart so there would be no interference.

CLEAR-CHANNEL LOBBY FORMED

Several years ago 16 clear-channel stations realizing that this sensible and necessary trend would eventually catch up with them banded together into a lobbying organization. This lobby filed a petition with the Commission demanding that the remaining clear-channel stations be granted 750,000 watts of power, contending the objective to be to give better service to 23 million rural listeners. They made this ridiculous argument with a poker face. That the 23 million farm people could be better served by local stations, the result of a wise use of duplication, is glossed over by the clear channels and the obedient Commission.

Mr. MAGNUSON. Mr. President will the Senator yield?

Mr. JOHNSON of Colorado. I yield.

Mr. MAGNUSON. I might illustrate what the Senator has just said by citing an example. I know the Senator could cite many other examples. For instance, in my home State, in the city of Spokane, Wash., a request has been made to the Commission informally—it was not a formal application—that a certain frequency be given to a station there so that the station might serve a radius of, say, another 25 or 30 miles, and include about 60,000 farmers who are not now served from the Spokane area by this particular station, which is a network station. The frequency available for the area, however, happens to be one of the clear channels that some station back on the east coast has. The Commission has consistently refused to act on this type of application. But here are these rural areas denied the right of local radio service, and the people are obliged to listen, whether they like it or not, to programs which come on a clear channel, which may originate in San Francisco or some other place.

Mr. President, I wish to ask the Senator from Colorado if he does not know that that situation is duplicated in many, many cases?

Mr. JOHNSON of Colorado. Yes; there are literally hundreds of such cases throughout the country. In my opinion there is absolutely no excuse for them.

Mr. MAGNUSON. The listener wants to listen to programs coming from his local station, just as we like to read our local newspapers, although we may read some out-of-town newspapers.

In Senator Johnson's speech he also warned, even as early as April of 1949, against the danger that television broadcasting was headed toward monopolistic control because of scarcity created by allocation policies. He expressly pointed to the serious inadequacy of the 12 VHF channels then assigned to television. He pleaded for the imperative need for the effective utilization of the UHF band as the only hope for averting a tight and dangerous monopoly in television. In view of all the facts which we now know, Senator Johnson was indeed prophetic.

About everything that can be said for or against a two-spectrum system has already been said, and little more can come from further talk. The time is long past due for the Federal Communications Commission and Congress to stop talking and promising, and to come forth with a sharp knife to cut up the spectrum pie.

When a TV station picture goes beyond the normal trading area of its community it is merely denying possible service to other deserv-

ing cities from their own local stations. Certainly the fantastic over-all TV revenues produced in 1955 have proved the ability of our economy to accommodate additional equal facilities to more communities, for greater service to the public.

Despite the propaganda (generated by those who wish to retain a favored economic position) to the effect that our economy will not accommodate more television stations than we now have, there are many veteran broadcasters who believe that the pie is large enough for many slices, if the slices were smaller, and who would therefore be willing to risk their capital in television if there were just a 50-50 chance for success—a chance which can be provided only by the availability of equal competitive facilities. This philosophy has been consistently expressed from the very beginning by the UHF-ICC, which has urged that what is required is a reallocation premised on the basic concept that television stations should be assigned to provide service to a single homogeneous market, with the principal and primary purpose of serving the local needs of specified communities. By definition, wide area stations cannot serve such a purpose.

We have also been of the view that while it would be desirable to explore the possibility of tighter regulation of networks in order to eliminate restrictive practices which deprive broadcasters of a fair opportunity to compete for network programs, such regulatory measures would merely attack the basic problem at its periphery rather than at its core. They would merely apply salve to a cancer that requires major surgery.

Senator PASTORE. At this point, Mr. Thoms, would you say that whatever remedial action is required is of a legislative nature or is it administrative?

Mr. THOMS. We have taken the position all the time—our group has—that basically the Federal Communications Commission has the authority to take all necessary remedial action.

The problem today is no longer simply one of disparities between UHF and VHF but one of a simple principle—namely, shall this country have many TV stations separately serving many communities or a few superpower stations each covering extensive areas and many communities. The old AM superpower fight has now been extended to TV.

The abnormal profits made in radio and TV have come about through the principle of scarcity, inherent in present allocation policies, creating the forces of “haves” and “have-nots.”

Nineteen hundred and fifty-four and 1955 proved that it was not lack of finances, ingenuity, industry, or experience that caused UHF stations to fail when subjected to VHF competition. Deintermixed areas have rendered excellent TV service, and could continue to do so if given proper protection. If the powerful “haves” had not thrown effective roadblocks all along the way, we could by now have been well along the way to an effective nationwide competitive system based upon a sound reallocation.

I respectfully submit to this committee that the time has long since passed when we may permit ourselves the luxury of a wait and see attitude. The Commission has made it abundantly clear that it is disposed to temporize and not to act. If it is the view of this committee that the public interest does not require immediate remedial action—and that the present accelerated trend to a monopoly of super-

power, multiple-market stations may be permitted to continue—then no action need be taken by this committee or the Congress. However, if it is the view of this committee that the public interest does require immediate remedial action and that the public interest requires that the national television structure must provide the potential of multiple services and multiple local outlets, then this committee or the Congress must act.

Perhaps Congress cannot feasibly legislate the specific details of a reallocation plan. However, where, in the face of the urgent need for prompt action, the administrative agency has delayed unreasonably even in proposing a solution, and where that agency is riddled with doubts as to the proper course to pursue, then it necessarily devolves upon the Congress to direct the way.

This it can do by enunciating as the policy of Congress, by resolution, that the Commission issue its own rulemaking proposal providing for reassignment of television channels on or before a specified date; and, pending the conclusion of such rulemaking proceedings, the effectiveness of television authorizations providing for new or changed facilities granted within 30 days previous thereto shall be suspended, and future grants of such authorizations shall be withheld.

We have already pointed out past precedents for such congressional action. In such a resolution, it should be declared to be congressional policy that such a reassignment of channels should have as its primary objective a multiplicity of equal competitive facilities limited to service of a single market unless unusual circumstances in any particular case require otherwise.

We believe that the following principles are necessary to the establishment of a nationwide competitive television service:

1. Deintermixture.
2. Reduction of the present permissive limits of power.
3. Reduction of the present permissive limits of antenna heights.
4. Reduction of presently prescribed VHF mileage separations.
5. Confinement of television stations to their home communities.
6. Provision for the use of directional antennas whenever necessary to accomplish the foregoing objectives.
7. Elimination of cost differentials for all-band sets.

Senator PASTORE. On that No. 7, what do you mean by that? It sounds good, but who would have the authority to effect that—the Commission or the Congress? We could not dictate to private industry to remove a differential in costs, could we, unless you are referring now to the excise tax. Is that what you have in mind?

Mr. THOMS. That is one means, yes.

Senator PASTORE. That is discriminatory legislation. The minute you do that, you fall back in your other six categories.

Mr. THOMS. And we are not all agreed on that.

Senator PASTORE. I just thought I would clear the record as to what you meant.

Mr. THOMS. This might be accomplished through congressional action in authorizing, or giving the Commission the authority to set standards for receiving sets.

Senator PASTORE. Provided you do not allow the viewer or the public to swallow up the additional cost here. I mean, in all this we have got to be very, very careful that the public itself is not being called upon to unscramble something they are not responsible for, either in

the way of costs or inconvenience. That is absolutely important in all this discussion.

Senator ERVIN. Your idea there is fundamentally to change the revenue law with regard to the excise tax so as to make it advantageous, through a reduction of the tax, for manufacturers to equip their receivers to receive all TV signals.

Mr. THOMS. We think that is one possible way.

8. Reduction of common carrier cable and microwave relay costs.

Since the principle of deintermixture has been almost universally endorsed by substantial segments of this industry, including those which today have a great stake in VHF, deintermixture should be the basic criterion for a proper reallocation.

We believe that in the directive which we urge Congress to issue to the Commission, objectives (1) through (6) should be included as the specific standards upon which a proper allocation should be based.

A failure to accept the foregoing objectives can only result in a perpetuation of the present two-network monopoly which has been fostered by the existing television allocation plan.

Senator PASTORE. Thank you very much, Mr. Thoms. Any questions, Senator Ervin?

Senator ERVIN. No, sir. I would just like to say our folks in North Carolina have been following these hearings with a great deal of interest. It is unfortunate, and I think that Senator Pastore agrees with me, that the Federal Communications Commission has not moved a little faster in this field to try to solve this problem.

We are glad to see you fellow Tarheels up here.

Mr. COX. I take it your basic proposal, then, is deintermixture almost on a nationwide basis, making use, in those areas where you have to substitute for UHF stations existing in a predominantly V market, of these drop-in V's, and you would make that possibly through reduction in the Commission's standards. Is that correct?

Mr. THOMS. Yes. I would say at this late date a long-range plan of solving the issue should incorporate a deintermixture. Taking away in some areas could have been done 2 years ago without much damage, but at this late date you will probably have to take away some V's and make those areas all U.

Mr. COX. You are not suggesting a specific plan? You are just proposing to lay this down as a basic premise for the Commission?

Mr. THOMS. That is right. We feel that the Commission has the time, the brains, the money and the engineers—the know-how—to do this job if they were directed to do it.

Mr. COX. You are asking, then, that this committee, or through the committee, the Congress, should adopt a resolution so directing the Commission?

Mr. THOMS. Yes, that is right.

Mr. COX. Do you think that such a proposal could be worked out on terms which would provide this localized coverage of equal competitive facilities on a basis that would not create white areas in between the coverages of these somewhat smaller stations?

Mr. THOMS. Undoubtedly.

Mr. COX. Isn't there some likelihood that, at least in some parts of the country where you don't have large population concentrations, you don't have substantial outlying cities, you would still need full

power V stations in order to get an economical coverage of those areas?

Mr. THOMS. You are talking about the Middle West, for instance?

Mr. Cox. And the Far West, the mountainous areas.

Mr. THOMS. I don't think there has been any major problem of finding enough V's to take care of those white areas out in the West.

Senator PORTER. You have not taken care of Cheboygan yet.

Mr. Cox. They will give you a small drop-in V.

If you simply drop-in a V in an area which is now predominantly V, to provide a competitive channel for the U operator there today, unless you similarly reduce the power—as I understand you propose to do—for the existing V stations, you would still leave him with a noncompetitive facility, would you not?

Mr. THOMS. Not necessarily. There may be cases where a U operator would rather have a low-power V than a maximum-power U as provided under the present standards.

Mr. Cox. He at least would get away from the conversion problem?

Mr. THOMS. He would get away from the conversion problem, and he at least will have a fighting chance with a competing type of facility. He will not be an outcast.

Mr. Cox. Do you think he can persuade the advertisers at least to pay a reduced card rate for that kind of V coverage better than he can a more substantial U coverage?

Mr. THOMS. Just as a 250-watt station does very well in a community with a regional or clear-channel station; yes, sir.

Mr. Cox. If you are going to have a lot of these small area coverage stations, either U or V, is it your position that their added cost—because each one of them is going to have a station, staff, and so on—that those costs can be economically borne by the present advertising revenues which go to the support of television on a nationwide basis?

Mr. THOMS. There isn't any doubt about it. I can use my own Asheville situation as an example. It is possible to pay all costs of an economical low-powered V, as I do with my U in Asheville, for as little money as it takes to operate a radio station. The industry has found out many, many shortcuts—we practice them and we do a good job with them—whereby you do not have to think of television in terms of millions of dollars all the time.

You can think in terms of revenue for a low-powered V in terms of \$8,000, \$10,000, or \$12,000 a month and you can still make money in a hometown community.

Mr. Cox. For the record, it is true, is it not, that in Asheville itself—disregarding possible competing signals from outside the community—you compete with 1 high-band V, and that you have 2 network affiliations and he has 1. Is that correct?

Mr. THOMS. Right.

Mr. Cox. However, his card rate is double yours.

Mr. THOMS. That's right.

Mr. Cox. What percentage of conversion do you have in the area?

Mr. THOMS. We had at one time, before the encroaching V's were started and before the local V opened up, around 60 percent conversion, which was considered pretty good.

Mr. Cox. Now what would it be?

Mr. THOMS. I don't think we have particularly lost any conversion.

Mr. Cox. You are just holding on at that level?

Mr. THOMS. That's right. It's a holding process now.

Mr. Cox. Is your principal problem, you think, competition from the V in Asheville, or is it competition from the V's in surrounding communities?

Mr. THOMS. Both.

Senator PASTORE. In what way do you feel the competition? Do you lose out on a better type of program, or what? After all, fundamentally, if the people in a community can turn on a U as easily as they can turn on a V, or turn on a V as easily as they can turn on a U, then why is it the concern of Congress as to whether or not the stations live or don't live? Is it not a question of what kind of a program you can get?

Mr. THOMS. It isn't a question of programs with me.

Senator PASTORE. What is fundamentally your trouble? Do you mean the fact that other stations come into your area?

Mr. THOMS. It is the inequality of the facilities, to begin with. I am a U, and the others are V's. They have more extensive coverage. In my particular area, the Commission, when they originally made the allocation plan, did not take into consideration terrain. They just drew a bunch of circles on maps and fit them on a map, and that was it.

If you happen to be in a mountainous area where the UHF propagation is poor, that was something that time and technical development was supposed to overcome.

So far it has not been overcome. So I am constantly behind in circulation because I don't have the coverage, and the technical ability of the UHF transmitting equipment and receivers don't make me comparable with the V.

Senator PASTORE. How about the programs that you get? Do you get nationwide programs?

Mr. THOMS. Yes, sir.

Senator PASTORE. What do you carry—NBC?

Mr. THOMS. And CBS.

Mr. Cox. What percentage of your daily programing is network programs?

Mr. THOMS. I have no daily program. I have a limited operation 4 hours a night.

Mr. Cox. You are only on the air in the evening?

Mr. THOMS. That's right.

Mr. Cox. Let me ask you this. Are you making money or losing money?

Mr. THOMS. I am losing a little money. I cannot sell any local advertising and keep an advertiser on a UHF station.

Mr. Cox. Is your competitor able to sell advertisers on the proposition of buying time on this station during the days? Does he have a daytime operation?

Mr. THOMS. Yes, he has a salable product.

Senator POTTER. Can't you sell spots around the major programs?

Mr. THOMS. My circulation is so poor that I can't even sell, in good conscience, the spots around the national programs.

Senator PASTORE. Why not? Aren't you able to sell cheaper than the next fellow because your facilities are smaller?

Mr. THOMS. Yes. My rate is much lower.

Mr. Cox. But you still don't find purchasers?

Mr. THOMS. I can't deliver results. These advertisers stay on a station only so long as they get results for their advertising.

Senator POTTER. What is the quality of your signal? Is your signal of good quality?

Mr. THOMS. Where it is received, it is excellent. But in the mountainous area, with all these deep shadows and all, most of the people live in the coves along the river bottoms. A few live on the mountain tops. But the UHF signal simply will not penetrate into those coves and those deep shadowed areas.

Senator POTTER. That has been one of the problems I have always been concerned about—the fact as to the technical quality of UHF. I am thinking now of the public interest that is involved.

I had hoped—and probably there has been—a great deal of improvement in the engineering of the UHF or the all-channel receivers, and possibly the transmitting equipment. I do not know.

Mr. THOMS. There has been no improvement in the transmitting equipment.

Senator POTTER. There has been no improvement in the transmission?

Mr. THOMS. None at all.

Mr. Cox. They have higher power available; do they not?

Mr. THOMS. Higher power, yes.

Mr. Cox. I take it that it is your feeling that that would not be a solution in your case; increasing your signal strength is still not going to take care of your shadowed areas?

Senator POTTER. My point is this, that even if you had 100-percent conversion in your area, if you have these so-called shadows, I do not know what could be done from a rulemaking standpoint as far as the Commission is concerned, or by action of the Congress, to remedy that particular situation. I would like your comment on that point.

Mr. Cox. Have you given any thought to satellites, for instance? Mr. Storer was talking about that this morning.

Mr. THOMS. It would take about four satellites.

Senator POTTER. For you to have complete coverage?

Mr. THOMS. An important limitation is the cost of satellites and the superpower—and additional power—in the small markets. They simply can't invest a million and a half dollars in a market the size of Asheville.

You not only have the availability of more power and its proven lack of, even with more power, filling in the deeper shadow areas; but you have the economics of it. It is not possible or practical to invest the necessary sums to increase the UHF power to get the coverage.

Senator POTTER. We had testimony this morning by Mr. Storer, who stated that in a large city where you normally expect to have fairly flat terrain, UHF is not too successful because of the barriers from the high buildings. Now, if we find that from a technical standpoint it is not as good in rough country terrain, it presents a real question as far as the further development of UHF as a major factor in our nationwide competitive television system, as to how well the public interest will be served by UHF.

If you have that problem that was mentioned this morning in the major cities and we have problems like you mention this afternoon

where you have rough terrain, I do not know how much selectivity could be worked out in the interest of the public, which is our concern.

Mr. THOMS. I think the major mistake was probably made in the original allocation plan, in that the Commission did not take into consideration terrain. They probably should never have allocated any UHF frequencies in extremely mountainous areas. I am not saying that I want one or that I am arguing for it because I am not arguing my own case.

Mr. Cox. But in a case like yours, in the case of a U operating in mountainous terrain in competition with a V, the solution would more likely be to replace the U with a drop-in V than to deintermix in favor of all U's, in order to maintain service to the public?

Mr. THOMS. That is right.

Senator POTTER. Do you have any views on the question I asked Mr. Storer this morning on the suggestion that has been made in times past that if we have deintermixture, it should be confined in the large markets? Mr. Storer says that that does not work out too well because of the high buildings. Do you have any information on that?

Mr. THOMS. I did not hear all of Mr. Storer's testimony.

Senator POTTER. My question was, it has been suggested at times that your large metropolitan areas, such as New York, Los Angeles, Philadelphia, and Chicago, be made UHF communities, and allow your VHF to operate in your more remote areas where the distance is a factor.

Mr. THOMS. My answer is this, that I believe the Federal Communications Commission has enough data and information on hand now that they can determine where they can deintermix areas that will give perfectly satisfactory UHF service. There are areas in Indiana, Illinois, Ohio, and places like that, and in Florida, where deintermixing—where the U's do a beautiful job. UHF should not be cast aside, because that special spectrum is valuable and it is needed and should be kept in use.

Senator POTTER. My question is, Where should it be used?

Mr. THOMS. I think the Commission can find the places, where to use it and where not to use it. I think they know enough about it now.

Senator POTTER. If we cannot use it in our large cities and we cannot use it in rough terrain, then it does not leave too much of the country that is left. You have sections in Florida and the Central Midwest.

Mr. THOMS. I would say that it leaves better than half the country for them to work with.

Mr. Cox. I think Mr. Storer's testimony this morning was that there would be about 25 areas which would be all UHF or predominantly UHF. Do you think that would be a substantial enough area of UHF strength to maintain the industry as far as manufacturing of transmitters is concerned?

Mr. THOMS. I think it would go a long way, yes.

Mr. Cox. It would involve, would it not, some loss of areas in which there is a present sale of UHF receivers and transmitting equipment? That is, if for instance, in mountainous areas the shift is made to all V, you are then going to lose the set conversions that have been made in that area and you will have no replacement sales.

Mr. THOMS. We are going to lose them anyway.

Senator POTTER. Let me ask you one more question: If color television develops as we expect it will develop, wouldn't it be a big help to the UHF stations if the manufacturers of color television sets continue their policy of making all-channel sets?

Mr. THOMS. I think RCA is doing that. They say that they will give no guaranty that they will continue it.

Senator POTTER. But isn't it very desirable that all manufacturers make all-channel sets?

Mr. THOMS. Yes. You haven't got black and white solved yet.

Senator POTTER. If you are going into a new phase, black and white may be obsolete 10 years from now. We don't know.

Mr. THOMS. I mean if you are going to regulate it. RCA makes the statement that if, when other manufacturers come in the production of tubes and sets, it becomes necessary for them to drop their UHF in the color sets to be competitive they will drop them. I imagine that won't be too far off.

Senator POTTER. If they start selling color sets to a mass market, all the competitive factors will be operating, and 1 manufacturer who can save \$20 by leaving the all-channel tuner off, from a competitive standpoint that might be done. But the point I want to bring out is, if they would refrain from doing that, it would be a big help to bring about this nationwide competitive television system we have been talking about, wouldn't it?

Mr. THOMS. Yes, sir; I agree with you.

Mr. Cox. Thank you, Mr. Thoms.

Senator POTTER (presiding). Mr. Johnson, do you have a prepared statement?

Mr. JOHNSON. Yes.

Senator POTTER. You may proceed, Mr. Johnson.

STATEMENT OF JOHN G. JOHNSON, WTOB-TV, WINSTON-SALEM, N. C.

Mr. JOHNSON. My name is John G. Johnson and I am one of the owners and general manager of television station WTOB-TV at Winston-Salem, N. C. We operate on UHF channel 26 and have been continuously on the air since September 10, 1953. We do have a network. We are an affiliate of the American Broadcasting Co.'s television network. We have successfully operated a radio station in Winston-Salem for almost 9 years, and we also operate radio stations at Birmingham, Ala., and Norfolk, Va.

I want to thank you gentlemen for the opportunity of appearing here and make a few brief comments about a matter which, I am sure, is of deep concern to all of us.

I first appeared here about 2 years ago before this subcommittee, at which time Senator Potter was serving as chairman, and although we were at that time gravely concerned about the future of the UHF stations, the argument was made by many segments of the industry that we were merely experiencing growing pains, and it was not unusual that this should be true, because we represented a new segment in what was a relatively new industry. I believe that at that time about 10 stations in the UHF band had gone dark and ceased operation.

Now we come back some 2 years later, and we find not 10 stations, but some 56 have gone off the air as of today, I believe, which is almost 36 percent of the total aggregate number of UHF stations

that were ever on the air, and I believe about 56 percent of the number of UHF stations now on the air.

Every time one of these stations has gone off the air, it, of course, has meant a loss of television service to the particular community. It has meant a loss of employment for a number of specially trained people who need these jobs, and this I think emphasizes the seriousness of this situation in every community where it has occurred. I feel certain if you gentlemen could have had an opportunity to have seen in any community, first hand, one of these situations, you would readily recognize it is a very desperate sort of thing.

I think the evidence is testified to by the number of stations and the high percentage of the UHF industry that has been decimated, which pretty clearly establishes that in most cases a UHF station cannot compete successfully in a VHF market. May I say in most cases, because there are a few exceptions. But if you analyze the exceptions, I believe by and large it is where the network owns and operates a station, or where there is an all-UHF market or some unusual circumstance that made that UHF station in that particular situation have advantages not normally enjoyed by the average UHF station in a multiple-market competing with the V.

Senator POTTER. Do you compete with a V?

Mr. JOHNSON. Yes, sir; two of them. One is in our home city, and the other one is 25 miles away. One services us with NBC, the other with CBS.

I don't want to take your time to review all the evidence; as you know we have submitted it, as Mr. Thoms has pointed out. Nor do I come here with a single plan which I think will cure all of the ills of the UHF stations. But for 2 years now the people who have been operating these stations, and who have their investment in these stations, have come here and to the FCC and to the industry at large, and have looked hopefully for some positive action.

I think, in all fairness, 2 years is a long time, particularly in view of the growing mortality of the UHF stations. And I think in all fairness we are not unreasonable in asking now that the FCC, or someone, take action in this matter.

To elaborate on that just a moment, most of these stations—and I have not surveyed them individually, but I have talked with a large number of them—most of the current operating UHF commercial stations—I think about 95—I believe without any doubt the majority of them are now losing money. I think most of them have probably lost money for anywhere from a year to 2 years, or longer.

Senator POTTER. Are you losing money?

Mr. JOHNSON. Yes, sir. When I say we have come hopefully, that is because of the statements about selective deintermixture. Because of some of the statements made by the Commission, these people have continued to lose money and continued to try to render a service to their communities, feeling that somewhere just around the corner is a chance that something might be done.

When I say that we feel we are entitled to an answer, it seems to me it is really a cruel thing to continue the indecision. Whatever the answer is, I think the people involved in this business are entitled to some definite solution, or some definite answer as to what the trend is going to be.

Senator POTTER. One way or the other.

Mr. JOHNSON. One way or the other; yes, sir; whatever it may be.

As I say here, many plans have been submitted to the Commission, and I think one of the problems has been—and I think I have talked with every Commissioner separately, collectively, and individually a number of times—that the plan itself is not a cure-all. It is not 100-percent perfect, and always there are some people who can find a deficiency in any plan that is submitted.

In fact, we are going to have to recognize and deal with the fact that we can't come up at this late date with a 100-percent cure. So if we are realistic and realize that, I think the thing to do is for the Commission to come up with as near to a 100-percent solution as they can. If it doesn't solve but 20 percent of the industry's problems, at least 20 percent will be saved. Because some percentage can still be saved.

However, I think if this situation that is now in existence is allowed to continue, we are going to reach the point, as Mr. Storer indicated this morning, when UHF will no longer be a factor in this industry. That is tied in not just with the station operation. As I say, if 56 percent of the present numbers of stations on the air are now gone, you can quickly see by simple arithmetic we are going to reach the point where RCA and Admiral and General Electric are going to say, "Let's not bother to produce or try to perfect UHF sets. It looks as though they are on the way out." The same thing happens on Madison Avenue with the advertisers. The same thing happens with any hoped-for improvements in television transmitters.

Senator POTTER. As a matter of fact, I think one of the reasons there is reluctance on the part of advertisers to place their advertising with UHF channels has been the fact that they haven't known whether UHF is going to continue or not.

Mr. JOHNSON. That is right, and we can't tell them. It has got to be told to everybody in the industry by the Federal Communications Commission or by you gentlemen or by someone who has the authority to say "Steps will be taken which will insure that some percent of it will live." Therefore the only request that I have to make is one that has been made before, and I repeat it only for emphasis, that I think it is now time that we must ask the FCC to come up with some plan to solve whatever percentage of it that they can solve in the best manner that they can solve it.

There have been a number of plans submitted to them. Maybe they can take a part of one and a part of another and patch together something that will tend to stabilize a certain percentage of the industry as it now is.

I think if some action is not taken soon—and I say that because the majority of these stations are losing money—it certainly will do no good to prescribe a remedy next year or year after next, or wait 2 more years until we have got only 4 UHF stations left on the air, because it is then too late.

I want to touch, if I may, on one problem that has been brought out, that you mentioned and Chairman Magnuson mentioned, about the effect of tying or hitching UHF sets to color. That unquestionably would be a big help. If the mechanics can be worked out, it would be a big boost. But it is 10 years from now. The UHF unit in that set, is there are no UHF stations, is of no value whatsoever. If something isn't done immediately to preserve some UHF stations, then that long-range plan is of no value at all.

So it looks to me as though there are two steps in that thinking. First, something must be done now to make it worthwhile to figure that it will pay later to have UHF in color sets, because if it isn't done now—Senator Magnuson talked about the local community. He said that he would hope that there could be a local television station in the long future that could operate without a network, because if it is tied to color, maybe all the sets will be UHF.

But I can assure you it seems logical to me that if approximately 156 UHF stations are gone, and 3 or 4 are left 10 years from now, no one is going to suddenly say, "I believe I will try it."

So we can point to a growing number of tombstones, deceased UHF stations, which I think alone testified to all of the other factors as to what is wrong. I think that speaks more eloquently than anything I can say that we are faced with the danger of losing what I think is an important part of our American way of life, and that is the same thing you are concerned about, and Senator Magnuson was concerned about. That is our hometown television station, because too many of them are in the UHF band and, once that is lost, our hometown television station, as such, all across America is gone.

Senator POTTER. Let me ask you this: What percentage of conversion do you have in your area?

Mr. JOHNSON. Approximately 60 percent.

Senator POTTER. Do you have any technical problems such as certain shadows within your area?

Mr. JOHNSON. We are not in rugged terrain, as Mr. Thoms would be in Asheville, but we are in rolling terrain.

Senator ERVIN. Lovely terrain.

Mr. JOHNSON. Lovely terrain. We have some problems, but standing alone they are not a serious factor.

Senator POTTER. The signal you send out is as good a signal as the VHF signal in that area?

Mr. JOHNSON. Within the limited area that we cover, and assuming that the set is fixed properly with the proper antenna and the proper type UHF receiver, I would say our signal is as good as the VHF. But it requires a lot of doing that the average viewer finds it difficult to do.

Mr. Cox. Do you continue to have trouble with the installation of antennas and the maintenance of UHF sets?

Mr. JOHNSON. Yes, sir; it is definitely more critical.

Mr. Cox. And therefore it is a greater expense to the viewer?

Mr. JOHNSON. A greater expense. Mr. Storer pointed out a tube which—all I know about it is about what he said. Somewhere somebody says GE has a tube which they hope in the future will help.

But what happens is about 6 months after a person buys a UHF set this particular critical tube that controls it will burn out. It has a very limited life. I can go to a meeting of the Rotary Club in Winston-Salem and half a dozen people say, "What happened to your station last night? You went off the air right in the middle of the fights." We didn't go off the air. That tube is getting weak and it fades, and maybe it burned out. They think we went off the air because they can tune in all the V stations but not us.

That itself is a critical problem which, as Mr. Storer said, I think the industry—if the industry believes that the UHF is going to live, I am sure the resources of General Electric and RCA and all the others

can go to work, and will go to work, and find the answer to those technical problems.

But I think there is a grave amount of doubt in their own minds. I was in Camden talking with the RCA people 2 weeks ago. I get the impression that these people were not in production, but just from talking with them they are just like the rest of us. They say, "We have got UHF transmitters stacked up in the warehouse. We don't know what to do with them." If that is true, you can't expect them, as intelligent businessmen, to devote a lot of research to try to improve UHF transmitters.

Senator POTTER. Has there been any resistance on the part of the appliance dealers in your area to push UHF sets?

Mr. JOHNSON. Generally speaking, it has not been too bad. There are a number of cases where it is true, because they have so many service problems with the UHF installation. But the real smart appliance dealer sells that set for more; and if he has got a good service department, and we service him all the time, he does push them. But that is almost like a separate business, our relationship with the appliance dealers.

Senator ERVIN. Your terrain is much more favorable than that in Asheville?

Mr. JOHNSON. Yes, sir; very definitely.

Senator ERVIN. Although you have a good deal of rolling country and some pretty steep country. Do you agree that the FCC now has sufficient legal authority to take final action?

Mr. JOHNSON. Legal authority—if my understanding is correct, Senator Ervin, I think so. I think if this committee asks the FCC—and the FCC has had a tremendous problem, I do not discount that—I think if someone pointed the way, for someone has got to take the ball and say to the FCC, "We would like you to come back with some sort of a plan within a specified time."

Senator ERVIN. How long do you think they should reasonably be given? In other words, I sort of share the opinion you have. I think they have been sort of slow in this—terribly slow.

Mr. JOHNSON. I think in view of the fact that this problem is not new to the FCC—they have debated it for some 2 years and a half at least—I should think they could come up with a plan in a matter of weeks rather than months—maybe 8 weeks or 6 weeks or 10 weeks. But I don't think it is a matter of 6 or 12 months.

Mr. Cox. Do you generally support Mr. Thomas' suggestion of a resolution setting out certain bases for such a decision by the Federal Communications Commission?

Mr. JOHNSON. I think so, to point the way—that here are certain things that appear logically can be done. Tell us what you can do in this area, and this area, and this area. For example, I understand that one of the engineering firms here in the city has submitted a deintermixture plan which takes care of some 60 markets out of 75 in 1 zone. I am sure the Commission created this allocation situation. I think it is their responsibility to do something about it. I think they have the know-how and I think they can do it.

Senator POTTER. I think we all appreciate the fact that whatever decision the Commission should make, it will be a painful decision to some and beneficial to others. It is not an easy decision.

Mr. JOHNSON. That is right.

Senator POTTER. But I agree with you a decision should be made, and has to be made.

Mr. JOHNSON. Regardless of what it is. Even if it was totally negative, that the people in the UHF industry know that nothing is going to be done, nothing can be done—which isn't the case—and then let them get out of business, because that is what most of them will do.

Senator ERVIN. In other words, you think it will be an act of kindness on the part of the Commission just to commit murder rather than to starve people to death slowly.

Mr. JOHNSON. That is right.

Mr. COX. Do you operate all day, Mr. Johnson?

Mr. JOHNSON. Yes, sir. Well, we operate from about 9:30 until 12 and then we come back on about 2:30 to 11.

Mr. COX. What percentage of your programming is network programming?

Mr. JOHNSON. I would say roughly 60 percent, maybe.

Mr. COX. You are apparently successful, then, in selling the sponsors—or do you get compensated for all of that, or is some of it carried without charge?

Mr. JOHNSON. A lot of it we carry out of faith alone. In an effort to render service to the community, we are doing a number of things that, if our station went off the air, could not be done in our community, because the other stations are so sold out. One of them is not in our city, and they are not interested in our community chest campaign, or our Red Cross, or whatever it might be.

So if we lose our service, our community will lose a lot of television service to the people that I think they deserve, and we are trying to give them that. But it is tough sledding.

Mr. COX. As I understand it, your fear is that if UHF stations continue to leave the air, and there is no incentive to manufacturers to develop equipment, and there is a continuing lack of faith on the part of the advertisers, these channels may to all intents and purposes become useless for all future time, because you could never interest anybody in using them again. Is that substantially correct?

Mr. JOHNSON. That is my opinion, and I honestly say I think there is very little argument to the contrary. There is very little evidence to the contrary—let me put it that way. Because when we were here 2 years ago, Senator Potter, there were people—and logically it made sense—who said, "Well, this UHF is a new thing. A lot of people who are not experienced in the broadcast business have gone into television, and it is reasonable to expect a certain amount of mortality."

Only 10 stations had ceased operation. That argument seemed logical. But to those of us who had some experience and could see this coming, we knew that it was very much deeper rooted than that, and I think now the facts are on our side. About 50 percent of the industry is gone. I don't think there is anyone—I haven't heard anyone—who doesn't think that if you allow this to continue, there is no doubt but what UHF as such will be virtually extinct. I think everybody at the Commission and everybody else would probably believe that is likely to happen.

Senator POTTER. That would be the same as FM in radio.

Mr. JOHNSON. Yes, sir.

Senator POTTER. Do you have any other questions, Senator Ervin?

Senator ERVIN. No.

Senator POTTER. Thank you, Mr. Johnson.

Mr. JOHNSON. Thank you.

Senator POTTER. Mr. Cottone?

Mr. COTTONE. I have arranged to spare you any further testimony in order to permit Mr. Lyman, who is anxious to get back, and who is a UHF operator, to make a short statement. He will not be longer than 10 minutes.

Senator POTTER. Thank you, Mr. Cottone. Mr. Lyman, you may proceed.

STATEMENT OF FRANK LYMAN, JR., PRESIDENT, MIDDLESEX BROADCASTING CORP., CAMBRIDGE, MASS.

Mr. LYMAN. Mr. Chairman and members of the committee, I am Frank Lyman, Jr., president of the Middlesex Broadcasting Corp., of Cambridge, Mass., one of the cities in metropolitan Boston. I have been in the broadcasting industry since 1934, when I bought an interest in station WNB in Vermont, later WKNE. I sold my interest in that in 1949, so I have seen a good many years of the broadcasting industry.

I am here today because I feel that I have a responsibility to apprise you of a serious situation which is rapidly worsening in the broadcast industry. I feel that I need not tell you how important television broadcasting is to the public interest, both on a national and local level.

I believe that we can quickly agree on some basic facts. We have thousands of newspapers throughout the United States which daily communicate to millions of people. We have thousands of radio stations. We have over 50 million telephones used by businesses and individuals. All the preceding means of communication depend upon either sight or sound; however, important as these means of communication are, I feel that it is a basic fact that television is the most powerful communications medium yet developed by man—because television combines both sight and sound.

In a few short years, over 35 million television receivers have been spread across our Nation. Television is well on its way to becoming this Nation's and the world's most important and most influential means of communication.

We currently operate WTAO-AM, WXHR-FM, and WTAO-TV. Our AM station, although only a daylight operation because it might possibly conflict at night with a Canadian clear-channel station, is able to render a fine local service and stand on its own two feet in a keenly competitive market. Let me tell you the story of our FM station, WXHR, which now programs classical music exclusively 17 hours a day. We put WXHR-FM on the air on an experimental basis in 1946. There were, of course, no FM receivers then in existence. We received our commercial permit late in 1947 and operated on a nominal commercial basis with substantially no advertising until the fall of 1950, at which time the receiver population had built up to a level which we felt justified actively soliciting advertising.

The advertising on WXHR has grown at a steady rate ever since, and there is no question that the population of FM receivers in the

Boston area has paralleled this growth. WXHR is a "good music" station, and we are extremely particular about the type and class of advertising we carry. All the musical selections on WXHR are long, of the order of 20 minutes or more, so you do not find any crowding of advertising. These high-grade commercial policies on WXHR have probably been responsible in a considerable measure for the widespread public acceptance and loyal audience of our FM station, WXHR.

We built this service where none had existed; we are anxious to do the same job with our WTOO-TV; however, up to the present time allocations problems have held us back.

WTOO-TV is a real problem. We have operated our UHF station for over 2 years in entrenched VHF territory. We entered upon television, because we considered the medium to be a natural extension of the fine local services which we already provided our community.

Senator POTTER. How many VHF stations are in your area?

Mr. LYMAN. In Boston there are two VHF stations.

Senator POTTER. Do you have a network affiliation?

Mr. LYMAN. We do not at the present time. We had network service arranged with ABC, but then the station through which we were to get the service in Worcester folded up last fall—went off the air—and our method of getting a program service on such a basis as we could handle financially was cut off. So all we have is film, and some local originations.

Senator POTTER. Was that Worcester station a VHF?

Mr. LYMAN. That was a UHF station, as we are.

Senator POTTER. How were you to get them?

Mr. LYMAN. By air from Worcester.

Senator POTTER. You were going to be a satellite to the Worcester station, is that it?

Mr. LYMAN. We didn't call it that, but we would have relayed with an off-the-air pickup. This we had a firm agreement with ABC on, but this Worcester foldup prevented it.

In 1952 we took the Commission's allocation plan on good faith and placed our resources, experience, and effort into building a local television service for our community. In the time that has since gone by, it is now clearly recognized that the Commission's hope of successful intermixture of television channels was a dream. To us, it has been a nightmare. Intermixture of UHF channels with VHF channels has not worked out.

We feel that the solution to the present television intermixture problem will not be found by allowing the current trend toward monopoly to continue. On this point, if you squeeze this thing down to just 12 channels, there is not much chance for a real competitive system, at least in our part of the country. I don't know about the other sections. It limits it very sharply with 12 channels in a rather densely populated area such as New England. You can't have any variety of service.

While in the initial phases of television development, the large-coverage television station may have been a necessity. The need now is for more stations which will provide the maximum amount of free competition and program choice. Any further grants, or changes in grants, issued by the Commission should recognize the fundamental market-place economics involved in fostering a competitive television system.

I would like to get off on this. There seems to be a rather ludicrous development in this all, that in the planning of this television allocation problem the economics of the situation were almost completely ignored. I don't see how they could have been so beautifully bypassed, but there seems to have been no thought of it in the initial plan.

We believe that the basic hypothesis upon which any readjustment of the allocations should be made is that competition best protects the public interest.

Of the 56 UHF casualties, 4 are from New England: Portland, Lewiston, Providence, and Worcester. These stations died in that sequence. Each flickered out on a rim surrounding the Cambridge location of WTAO-TV. This fading of UHF so close to home has added considerably to our problem of developing a local television service. Every existing difficulty has been increased: network affiliation is less likely, advertiser and agency apathy is more pronounced, and conversions are more difficult to secure.

Senator PORTER. What percentage of conversion do you have?

Mr. LYMAN. I haven't got a good recent figure. It is definitely low. We have never been able to put the millions in that George Storer has been able to put into building conversion, and we are faced with a pretty tough VHF situation with two. Our neighbor out in Worcester did spend rather large sums and even there conversion was not too impressive to me. They had varying figures on it.

Senator PORTER. I assume because of lack of conversion, you haven't been able to get ABC on your own?

Mr. LYMAN. We couldn't possibly afford the cost that would be involved.

Mr. COX. Connection costs and like charges, you mean?

Mr. LYMAN. All of those things, yes; it would be completely out of line. We operate in very small fashion. Our TV is by far the smallest station of our three.

Mr. COX. I assume even if you got the programing, you would still have the problem of persuading the national sponsors to pay for its being broadcast over your station?

Mr. LYMAN. Yes; you certainly would.

Mr. COX. You tend more or less to carry it as a public service, rather than as a source of revenue?

Mr. LYMAN. I am afraid we would have to.

The Commission's Third Survey of Post-Freeze Television Stations confirms the nationwide extent of the intermixture problem. The basic issue involved is whether the people of Boston, New England, and the United States are better served by a few large-coverage stations or these same few large-coverage stations along with a larger number of smaller stations serving their own communities.

We feel that an allocations readjustment which will provide the maximum number of stations engaged in free competition will best protect the public interest. A station's ability to compete hinges upon access to receivers. We only ask for equal access to viewers who can be reached by our immediate competitors. This, we believe, is a fundamental tenet that the Congress and the Commission must recognize and act upon in any basic readjustment of the television allocations. For many agonizing months we have patiently waited for the Commission to take some positive action to permit the development of local community service.

We have written letters to individual Commissioners for their enlightenment in making a decision; we have made personal visits to the FCC to give them the fruits of our experience; we have filed formal petitions.

But all of these efforts have been fruitless since the Commission seems to have become more and more dedicated to preserving a monopoly of very few high-power, high-tower VHF stations serving huge areas, regions, and States—with local expression buried under the exclusive power of a very few men deciding that the national programs which bring them the largest revenue shall be the program that the people shall view and listen to.

Senator POTTER. Do you have any questions, Senator Ervin?

Senator ERVIN. No.

Senator POTTER. Senator Bricker?

Senator BRICKER. No.

Mr. COX. Is it your position, Mr. Lyman, that if you had a like facility in Cambridge—that is, either a drop-in V with a directional antenna, or, if you went the other way, and the area would be deintermixed and made all UHF, that you could operate a competitive station on a local basis in competition with the obviously more powerful stations in Boston?

Mr. LYMAN. Yes; that is exactly my feeling, and I think we pretty much proved that we have been able to do that kind of thing with our FM development. FM started with a zero population of receivers and we have gradually built up to the order of 300,000 receivers in the Boston area. It is a big market area, and this kind of thing can be done. The market will support it easily. It is reported that the television advertising amounts to around \$10 million in the Boston area currently.

Senator POTTER. What type of programs do you put on?

Mr. LYMAN. We get film. That is our source, and some local—one cooking school type of program. Our budget is extremely small. The amount of advertising we are carrying on television is negligible.

Mr. COX. How long are you on each day?

Mr. LYMAN. About 2 hours a day.

Mr. COX. Do you think if you could get access to the viewers that you could provide a service that would not only take care of the local needs of Cambridge, but would find viewers in Boston itself?

Mr. LYMAN. In the Boston area—our city is set up a little different than some. We have a good many separate cities that make up metropolitan Boston. They have not been incorporated in the Boston unity. But it is a metropolitan area of around 3 million people. Yes; quite true. Other cities in our area require the same kind of local service, something different than the big New York network program which is about all else that is available.

Mr. COX. Do you subscribe to Mr. Thom's suggestion that this committee should seek by resolution to direct some action on the part of the FCC?

Mr. LYMAN. Yes; I do. I think that only by some congressional act of that sort—committee act—can anything be done about this. I feel this situation of TV becoming a very concentrated type of monopoly is extremely dangerous and only the Congress is in a position to take a firm hand.

Senator POTTER. Thank you, Mr. Lyman.

Senator POTTER. Mr. Patterson.

**STATEMENT OF NORWOOD J. PATTERSON, GENERAL MANAGER,
KSAN TELEVISION STATION, SAN FRANCISCO, CALIF.**

Mr. PATTERSON. Honorable Chairman Magnuson and other members of the committee, I consider it indeed a pleasure to be able to testify this afternoon.

Senator POTTER. Would you identify yourself for the record and give the station you represent?

Mr. PATTERSON. My name is Norwood J. Patterson. I am the son of the owner, S. H. Patterson, of KSAN television, channel 32, in San Francisco, Calif. My father appeared before you some 2 years ago, and I am certainly sure he would rather be here today than where he is. Unfortunately he is in the hospital having a minor operation for a minor hernia.

Senator POTTER. I am sorry to hear that. Convey my best wishes to your father.

Mr. PATTERSON. Thank you. I would like to present this little folder along with the other few words I have to say, as I will be referring to it later on.

Senator POTTER. You may commence your statement. Do you care to read your statement?

Mr. PATTERSON. I would like to read my statement, and I would appreciate very much if you would be kind enough to bring up questions as we go through.

First of all, I would like to review just a little bit our operation in San Francisco. For the past 2 years my father, S. H. Patterson, has been licensee of KSAN television station, UHF channel 32, in San Francisco, Calif. I, Norwood J. Patterson, have been the general manager during this period of time.

KSAN television has been operated according to the rules, regulations, and policies of the Federal Communications Commission as set forth in its sixth order and report, being an intermixed market—that is, VHF television assignments and UHF television assignments assigned together in the San Francisco market. During these 2 years of operations there have been 3 competitive VHF television facilities, namely, channels 4, 5, and 7, operating in San Francisco, licensed for San Francisco; and 1 UHF channel in San Francisco, KSAN-TV, channel 32.

Thus, our 2 years' experience in the television industry has been in a mixed market, with three well-established competitive V's, and a fourth service to the area made possible by the proximity location of the transmitter of channel 13, licensed to serve Stockton, Calif., but in a sense doing the best they can to serve metropolitan San Francisco.

Senator POTTER. Where is their antenna placed?

Mr. PATTERSON. Their antenna is located on a 4,000-foot peak, Mount Diablo, which is considerably closer to San Francisco than it is to Stockton.

I would like to say briefly that my father has been a very successful operator in radio, having been in the radio business since 1926 and having owned and operated one or more radio stations since 1933.

During this 2-year period of time it has been the policy of KSAN-TV to program outstanding programs that were not available through any other television facility, and programs that were in demand to a sufficient extent that these programs would create a desire in the

general public to the extent necessary to spend additional sums of money to have their existing television set converted, since there were approximately 1 million existing VHF-only television sets in circulation in the 6-county San Francisco Bay area metropolitan market at the time KSAN television went on the air.

Such programs during this 2-year period have been:

Pacific Coast League baseball nightly, of both Oakland Oaks and San Francisco Seals. These were live telecasts using three-camera coverage of the games.

Intercollegiate basketball—California, Stanford, University of San Francisco, St. Mary's, and other schools, both live and film.

High school football and basketball.

Pacific Coast Conference football—California, Stanford, and so forth.

Boxing—local and national and film.

Wrestling—on film basically.

Thoroughbred horse racing—live telecast with a feature race daily. Incidentally, this was the first time in the history of the United States that, during the entire meet, the feature race was televised.

Then we have played the films, the actual films, that evening of Tanforan, Bay Meadows, and Golden Gate Fields as races were run at their respective tracks.

In addition to this, we had many other local programs. I am not trying to list all of them, but just hitting some of the highlights. These are just a few of the programs, which are in more detail in exhibit A¹ attached, which have caused approximately 25 percent of the people in the San Francisco Bay area owning television sets to convert them to receive UHF television, KSAN-TV, channel 32.

During this period of 2 years, KSAN-TV, channel 32, has increased its effective radiated power from 20,000 to 200,000 watts. With this experience of 2 years, and at the expense of losing hundreds of thousands of dollars, we have proved without a question of doubt that UHF and VHF television cannot successfully compete in a mixed market due to the numerous outstanding advantages VHF has over UHF, such as considerably better propagation characteristics over mountainous terrain which San Francisco encompasses, from sea level to a thousand feet above sea level within the small area 7 miles on each side, thus enabling a VHF station to be received in most instances without an outside antenna, and in shadowed areas for VHF to produce a snow-free picture without the great added expense and careful installation that are necessary to produce a snow-free picture on UHF.

Senator PASTORE. Could I interrupt you at that point? How are you going to hold that against VHF?

Mr. PATTERSON. I beg your pardon?

Senator PASTORE. How are you going to hold it against VHF, the fact that it is superior? Or how are you going to deny it to the public?

Mr. PATTERSON. I am not trying to do either. I am trying to point out that, with the proper allocation, both can live together if they are not trying to survive in the same market.

¹ The brochure referred to will be retained in the committee's files.

I will put it this way. If we were all UHF in San Francisco, the general public would in that instance not think it abnormal to have to be scrutinizingly careful with their installation because they would do it on all television stations. If we were all VHF, there would not be the same problem. It is when you mix the two together that the problem is created.

Senator PASTORE. That may be true. But the argument that was made here by one of the members of the Commission—and I think he is right here now this afternoon—was principally along the lines that in many of these locations they have already had both. They have already seen the superior VHF. Under what logic do you take it away from them?

Mr. PATTERSON. I do not propose to take it away from them, Senator. I propose that in areas such as San Francisco, this be made a VHF market; and that in areas which have flat terrain—Sacramento Valley, Stockton, Fresno, Bakersfield—where there is no problem, where UHF produces even a better picture than does VHF—and I will explain reasons why—

Senator PASTORE. I see. I get your argument, now.

Mr. PATTERSON. There should not be VHF in that area, because they do not give either added coverage, nor do they give as good a picture.

Senator POTTER. Do you agree with Mr. Storer's statement this morning that UHF is not desirable for your large metropolitan markets?

Mr. PATTERSON. I did not hear his statement this morning, but basically it is less advantageous in large metropolitan markets than is VHF, because you have more building shadow problems.

In flat terrain such as we have in the Sacramento Valley, in Fresno, Bakersfield, all through that area, all through the Middle West, through Kansas and the eastern part of Colorado and Nebraska and Wyoming, all of that flat terrain area, UHF will actually produce a better picture than will VHF. I say that because of these reasons. It is not subject to interference from manmade interference like electric shavers. When you turn on an electric shaver you can see the lines go through your television set on VHF and your picture has had it. On UHF, that is not the case.

Electric beaters do not bother UHF, but they do VHF. Airplanes going over producing a multiple path of the reflected signal produce a jumpy and a distorted picture on VHF, but does not on UHF. So UHF does have its advantages, and if you put that where it can best be utilized, it actually produces a superior picture and a coverage equal to VHF.

Mr. Cox. Is that at maximum power, or can that be done at less than maximum power for a UHF station—to get the geographical coverage, I mean?

Mr. PATTERSON. To get the geographical coverage, you would have to compare maximum power on UHF with maximum power on VHF, if you are going to compare maximum powers both ways to get the coverage.

Mr. Cox. Can you, with 1,000 kilowatts, provide the same coverage that a low-band V does at 100?

Mr. PATTERSON. In flat terrain, yes. One other point I would like to point out, and that is that the UHF can produce maximum power at about the same cost that a VHF can produce maximum power, because you can get maximum power in the antennas without the high cost that is necessary in VHF to go to a higher power transmitter. You can use a lower power transmitter and get maximum power.

Mr. Cox. Can you use a high gain antenna?

Mr. PATTERSON. Through the use of a high gain antenna, and those frequencies are much smaller and the antennas are actually less expensive to buy.

Senator PASTORE. In other words, you are actually making the argument, in your opinion one of the great assets to the solution of this problem is selective deintermixture.

Mr. PATTERSON. I think it should, and could, even go further than selective deintermixture.

Senator PASTORE. How far could you go?

Mr. PATTERSON. I believe it is within the Commission's power—I don't have an exact percentage figure, but I think it—I shouldn't say areawise, but marketwise, I think it can be deintermixed completely.

Areawise you will always have some small overlap. This has not been a problem in our particular market, where UHF has been in their own market of Sacramento. There they have been completely successful. Yet they have had service, and there was service from VHF San Francisco stations prior to the UHF station going on the air.

But they were in fringe areas and whenever you are in a fringe area the UHF picture is so much superior that they would much rather listen to the UHF rather than VHF. They will expend the money to convert because they have a poor VHF picture. But when you put it the other way around, when they are already getting a perfect VHF picture, they are very reticent to spend any money to get even a comparable UHF picture.

Senator PASTORE. What kind of a market do you run your UHF station in? How many V's are there in your market?

Mr. PATTERSON. We have three V's in our market licensed for San Francisco. We have one V located—their transmitter—about 30 miles away. It is licensed for Stockton, and it is doing its utmost to sell the San Francisco market. They have applied to the Commission to move to San Francisco, but they were turned down. They operate a remote studio out of San Francisco. So they are doing their utmost to take out the San Francisco dollar, even though the allocation and so forth were supposed to put them over in Stockton.

Senator PASTORE. Your UHF station is in San Francisco?

Mr. PATTERSON. Our UHF is in San Francisco. Our transmitter is located on the same tower that both 5 and 7 are located on.

Senator PASTORE. What networks do you carry?

Mr. PATTERSON. We are completely independent.

Senator PASTORE. What are some of the shows that you carry of national prominence?

Mr. PATTERSON. We do not feel that it is necessary to carry shows of national prominence. We feel that it is necessary to carry shows of local prominence. We carry those itemized in the early part of this program, and summarized a little more in detail in your little red and white brochure.

We brought baseball to the San Francisco market exclusively for the first time every night, both the Oakland Oaks and San Francisco Seals. This was a very costly project, yet we did it. We brought intercollegiate basketball from Stanford and St. Mary's to San Francisco, every night, for the first time to our area.

Senator PASTORE. Have you been running a profitable station?

Mr. PATTERSON. We have been losing considerable money, to the extent that now we have reached the conclusion that we cannot continue to lose the amount of money that we have, that it requires a deintermixing, not only in our market but in everybody else's market. That is this one problem. There is only one problem.

Senator PASTORE. Let me ask you a few more questions in order to be clear in my own mind, Mr. Patterson. At the time you started your UHF station, how many V's were there in the same area?

Mr. PATTERSON. There were three V's. At that time channel 13 was not on the air.

Senator PASTORE. When you say channel 13, is that yours?

Mr. PATTERSON. No, channel 13 is licensed for Stockton, Calif.

Senator PASTORE. That is the one that is trying to come into San Francisco?

Mr. PATTERSON. That is right. When we went on the air, they were not licensed.

Senator PASTORE. Why did you get into this, realizing the fact there were already three V's there? Why did you invest all this money?

Mr. PATTERSON. We invested all this money, no doubt, for the same reason that the Federal Communications Commission made their allocation plan. It has now been proven a mistake, but at the time I am convinced that they did not do it intentionally.

They used their best judgment at the time in creating the sixth report in that allocation plan. We did the same thing. We used our best judgment at the time. We had faith that all manufacturers were going to come out with UHF sets. We believed that the technical advancement of the art would be further along than it is after these 2 years of time.

Mr. Cox. Do you think, Mr. Patterson, that if you had a comparable facility—a V in the San Francisco market—you could run a successful station and make a profit as an independent without a network affiliation?

Mr. PATTERSON. There is no question about it, for the very simple reason that with three V's in San Francisco, you cannot buy any time during the A hour when you could put on your own program.

The only time you could do it would be up at 10, 11, or 12 o'clock at night, or early in the afternoon. There is a clamoring for class A availabilities today. We were at one time successful in creating a volume of business, before the stigma of UHF developed as bad as it is now, of approximately \$20,000 a month.

Senator PASTORE. Let me clear something up at this point. You already had three V's in San Francisco in addition to your own U station. You are an independent. You are not tied up with any of the three large networks. Am I right?

Mr. PATTERSON. That is correct.

Senator PASTORE. Why do you say that changing from the U to the V will change you from a losing proposition to a profit-making proposition?

Mr. PATTERSON. For the very simple reason that we will then have people that will be able to look at the programs we put on.

Senator PASTORE. You are talking about conversions?

Mr. PATTERSON. Yes.

Senator PASTORE. That is fundamentally—

Mr. PATTERSON. Fundamentally that is the problem.

Senator PASTORE. You have got how many?

Mr. PATTERSON. We have about 25 percent.

Mr. Cox. Is it your view that if you could give the advertiser—and I assume there are many local advertisers who cannot buy time at all on the other three stations because it is taken up out of New York—

Mr. PATTERSON. They could neither afford it nor can they get the time.

Mr. Cox. But if you could give these advertisers the same coverage in the sense that if your programing would attract viewers, the viewer could see it without added expense, then you could increase your card rates to the extent that your operation would become financially successful?

Mr. PATTERSON. At this stage of the game we wouldn't even have to increase our card rates. It could be that we could sell sufficient—

Mr. Cox. You would have that much more business?

Mr. PATTERSON. That is correct.

Senator PASTORE. Did you not know when you applied for your U that you had to have conversion in your locality?

Mr. PATTERSON. That is correct, and that is why we spent over \$250,000 for programing during this first 2 years.

Senator PASTORE. Tell me specifically what is the thing in your mind that more or less deceived you on this U business. What is it that caused you to make this tremendous investment in the hope that something would happen that has not happened?

Mr. PATTERSON. If transmitter manufacturers had taken the amount of money that they have lost as of now in their transmitter division and promoted the sale of UHF television sets, they would not have lost the money they lost in the transmitter division, and the UHF television stations would be successful.

But when the manufacturers will discriminate and actually go to the extent of advising their distributors to talk against UHF, that is the thing that kept us from getting the conversion rate that this amount of money and this type of programs would have gotten otherwise.

Senator PASTORE. Will you admit this, that it costs a little more money to manufacture an all-channel set than it does a straight V?

Mr. PATTERSON. There is no question but what it does cost more money.

Senator PASTORE. Then why should the manufacturer compel the consumer, or the buying public, to spend more money than it has to, unless it really has to?

Mr. PATTERSON. I don't feel that they should compel them to, but I feel that if we all are trying to create a nationwide competitive television system, then it behooves all of us to try to sell the public on buying what we are trying to create.

Senator PASTORE. Even if it does cost more money?

Mr. PATTERSON. Even if it costs more money. It costs money to buy the first television set.

Senator PASTORE. I am not quarreling with you. I am trying to get some of these questions answered in my own mind because, after all, we must take the position here that whatever your difficulty happens to be, you cannot push this responsibility on the backs of the buying public.

Mr. PATTERSON. That I agree with.

Senator PASTORE. They should not be placed in the position that they have got to unscramble this mess. They had nothing to do with it.

Mr. PATTERSON. That is correct.

Senator PASTORE. You take a person in a locality where it has been given service—take San Francisco, for instance, with three V's. If they can buy a set and see all 3 V stations and spend, let's say, \$25 or \$30 less, why should they be compelled to spend \$25 or \$30 more?

Mr. PATTERSON. Because we can, and have, and will continue to give them programs that the other stations have not.

Senator PASTORE. Is that not the choice that the person should make on whether or not he wants to convert rather than be compelled to the conversion?

Mr. PATTERSON. That is true. But my point is that there is a discrimination against stations that are endeavoring to be competitive, one with the other, that we have no control over. And whenever you are on equal grounds, you have an equal ground for success.

Senator POTTER. Isn't it true that when you buy a V set, you are buying just half of a television set?

Mr. PATTERSON. That is correct.

Senator POTTER. In this case, there is a U in the area, a U which gives them a great community service. Nevertheless, as far as the community is concerned, I think it is much better if the person who buys the set would be able to switch onto any channel. He gets a full set that way. By doing that, he encourages local stations to go on the air and furnish local programs.

Mr. PATTERSON. I feel it is just as erroneous to manufacture a television set that will only get the first 12 stations as it would be to manufacture a television set that would only get the low-band V's.

Since we cannot control the general public, which seems to be the contention here this afternoon, the only thing we do then is to get the general public to the point to where they have no objection to buying UHF.

If there is all UHF in the market—to give you an example, Sacramento, Calif., or Fresno, Calif.—and you can go to many other exclusive U markets—they have no objection, and as a matter of fact they clamor for it because they have been getting fringe VHF reception and here, with this, they get beautiful pictures.

Mr. Cox. You think there is some chance that if the manufacture of all-channel sets were expanded, although there might continue to be a differential in cost between all-channel and VHF only, the actual ultimate cost to the consumer could be reduced by mass production?

Mr. PATTERSON. It has been reduced already. RCA has contended that it has reduced it from about \$40 to \$50, down to about \$25. But even so, that does not overcome all of the problems. That helps it. That is curing the effect rather than the cause.

Senator ERVIN. Instead of conversion of sets, you were offering the conversion of market areas. In other words, you are advocating as a real remedy making a given area either all V or all U, depending upon the conditions which would bring out the best features of each set of circumstances.

Mr. PATTERSON. That is absolutely correct.

Senator PASTORE. If you can't get all-channel sets, you have two answers to your problem, don't you? Are you not suggesting two answers, either that we get down to the business of having all-channel sets or you have got to strictly have all V's or all U's?

Mr. PATTERSON. If you or I could control the buying habits of the general public, there would be an alternate solution and that would be to stimulate the purchase of all-channel sets.

But because of the period of time that has evolved and the status that we are in now, I do not believe that that is the solution to our problem.

Senator PASTORE. There are too many V's out now.

Mr. PATTERSON. Our only solution to the problem is a reallocation of the allocation plan that the Commission has put out. There was proposed to them before this time this possibility that might exist, that now does exist, which was presented to the Commission by the Radio Corporation of America. Later on in here I give you the letter and the time and so forth.

They were also advised of this possibility that might exist by DuMont Laboratories, by Dr. DuMont before the allocation plan was put out.

No one knew for sure what would happen. But these experts that had their research behind them and so forth came out and said, "You had better look out; you had better not mix the two in the markets."

Now we have found out by our sad experience over these past 2 or 3 years that they were right, and we should have paid more attention to them at the time. Therefore we have a cause and we have an effect.

Most of the proposals that have been presented to the Commission will correct or help to correct the effect. But if we take those and apply those—that is, directional antennas, reduce separations, utilizing possibly some of the educational channels—if we take all of those things and apply that against the purpose of deintermixture, then we can be successful.

Senator PORTER. I think, Mr. Patterson, one of the economic problems that the Commission is faced with and the committee is faced with, if you go in and deintermix a market—for example, make one market a U market and another market a V market—you have millions of dollars invested by citizens of this country in the V set and you force them if they are going to see television to buy an all-channel set.

Maybe the opposite would be true in another market, where they have money invested in a U set and it turns out to be a V market. They can still use their set but they have paid additional money that is not needed.

That is the economic problem on one hand. Then you have the economic problem on the other of the man who has his money invested in building up his transmitter and other equipment for his business.

So we have two economic problems: One as it affects the public, and the other as it affects the industry.

Do you have any suggestions as to how those two economic conditions could be met?

Mr. PATTERSON. Yes. Those conditions are not anywhere as near serious as looking at them on the outside looks like. Let's take the first case where you have an all UHF market. That condition exists in Fresno, Calif., today. It did exist in Sacramento, and it exists in many other markets throughout the country.

If you put in one VHF, which has been recently proposed—and I guess it is still in contested hearings in Fresno—you are going to already present an economic problem to that group of people to get the excellent reception.

To offer this V, particularly in our outlying areas, you are going to have to make an additional expenditure of a VHF antenna in order to get this television station.

So that economic problem already exists and is being created every day by the Commission as they allocate a VHF station in an all UHF market.

Now, supposing we take out a VHF from the UHF market and give them a UHF. We have not cost that man and the public any additional money. True, he is not using a piece of equipment that he bought, but he did not buy it for a piece of equipment. He bought it to get a facility, to get the programs.

Those programs he is going to get anyway, so he hasn't been deprived of anything.

Senator PORTER. Excepting he bought something that he cannot use. He bought a part of his set which he cannot use.

Mr. PATTERSON. That is true, but he has used it for a period of time. He did not buy it to buy a piece of equipment; he bought it to look at a television signal, to look at a picture, so he has not been deprived.

What he spent his money for he is receiving. All he has to do is turn the button and get it at a different place on his television set.

Senator PORTER. Assuming the Commission should agree with your plan of having deintermixture on an area basis, would you recommend that there be a period of time, and if so, how long, for that change to take place?

Mr. PATTERSON. There are many areas currently where it could be done instantaneously. It could be done elsewhere. From past experience with the Commission when they have done such similar things—as the time in 1940 when they reallocated the broadcast band; we had a station at that time. We moved to another frequency. Directional antennas had to be changed and had to be moved, and new engineers had to put them over to new frequencies, and moneys were expended because the whole would be benefited by these moves.

We as the owner of a radio station at that time expended the money necessary to make that move, the move which was made by the Commission.

Usually the Commission in coming out with such new policies as that usually gives a period of from 6 months to a year to accomplish that.

Senator POTTER. The thing that disturbs me, I can see the roof coming off of the Capitol when you force a large portion of your citizens to purchase anything, which you would be doing in this case.

Mr. PATTERSON. That is where it is not true.

Senator PASTORE. It is a political impossibility.

Mr. PATTERSON. I don't think it is an impossibility.

Senator PASTORE. I say, a political impossibility.

Mr. PATTERSON. When you get RCA, NBC, and ABC all advocating the same plan—and I have reference to their comments as filed with the Federal Communications Commission later on in my report here—

Mr. Cox. Isn't it it true, Mr. Patterson—to take an example—if the plan outlined by Mr. Storer this morning, which involved the creation of 6 all UHF markets and of a certain number of 1 VHF market, were followed, actually it would not require the expenditure of funds? That is, in UHF markets or areas in which V's are not now on the air, so no one had expended any money in reliance on that.

Mr. PATTERSON. That is what I have been trying to point out. I guess I haven't made it too clear. In the UHF market the public doesn't have to spend any money. You continue that UHF market.

In our market of San Francisco, which is a VHF market, they do not have to expend any money, because all of the television sets already have got VHF.

Mr. Cox. Some of those who have made conversions would lose the money they have spent to get the conversion, but they will still be able to get the program now in a better way than they have been able to even with that expenditure.

Mr. PATTERSON. That is correct. They would get it even better than what they are currently getting.

Senator PASTORE. Before you start reading again, Mr. Patterson, one more question. Would subscription television allocated in your particular case alone to you be of any assistance to you?

Mr. PATTERSON. Let's say there again it would help to correct the effect, but wouldn't correct the basic fault.

Senator PASTORE. In other words, you wouldn't say that that would be an answer to your problem?

Mr. PATTERSON. I don't think it is an answer to the problem. I don't think that any time we correct the cause rather than the effect that we have really found the true answer to the problem.

I say we have a great problem whenever it gets to the point that we have to take up the time of all of you Senators here, for I am sure you have many more important things to do than listen to us talk.

Whenever it comes to the point that we have to take up your time, then we have a serious nationwide problem. When you have a serious nationwide problem, it takes drastic means to correct.

VHF is superior in the fact that it is not limited with respect to the television sets capable of receiving their signals, as all television sets ever sold receive VHF.

VHF is superior in that the present status of the art of receiving sets is considerably more sensitive on VHF than UHF, which means to receive a good picture on UHF comparable to VHF it takes much more signal to the UHF set.

UHF, however, has some advantages that makes it superior to VHF.

UHF is not subject to manmade interference from such household devices as electric shavers, vacuum cleaners, electric mixers, etc. UHF is not subjected to the distortion of signal from multipath transmission caused by reflections from terrain, and particularly noticeable from reflections of traveling airplanes. It is possible in the future that UHF may be considerably superior to VHF, but at the present stage of the art this is not the case.

All of this, gentlemen, proves that the deteriorating of a nationwide competitive television system today is caused simply by one thing, and one thing alone, and that is the allocation plan as set up by the Federal Communications Commission in its Sixth Order and Report. In that this report intermixes UHF television facilities with VHF television facilities.

I do not say that the Federal Communications Commission erred willingly in its Sixth Order and Report. I am sure that their decision was based on their best judgment and it was their belief that a mixed allocation plan would best serve the public and most readily create a nationwide competitive television service.

However, I would like to point out that the Commission was warned during the hearings, which culminated in the Sixth Order and Report, by many, that a mixture of UHF and VHF facilities in the same market should be avoided.

This was called to the Commission's attention by the Radio Corporation of America in a letter to the Federal Communications Commission on March 23, 1950, Docket No. 8736. It was also called to the attention of the Commission during these same proceedings by Dr. DuMont, wherein his overall allocation plan did not intermix UHF and VHF facilities.

These technical experts knew, because of their research, of the incompatibility of UHF and VHF being successful competitors in the same market. Likewise, Federal Communications Commissioners Hyde and Bartly, who presently are in favor of deintermixture, were in favor of not mixing UHF and VHF in the proceedings that created the sixth order and report.

Incidentally, they are two of the oldest Commissioners on the Federal Communications Commission. I am not referring to their hair. I am referring to their age as Commissioners. Here now, some 2 years later, the one thing that the Commission was warned about by those with experience and know-how has proven in practice to be the downfall of a competitive nationwide television system.

It is not my intention to point a scornful finger at the Federal Communications Commission, as most of the Commissioners that are serving on the Federal Communications Commission now are not the same Commissioners who were responsible for the errors in the sixth order and report; but to point out here that the Federal Communications Commission does have within its power, if they so wanted to, to immediately facilitate a nationwide competitive television service by deintermixing the markets of the United States, making some all UHF where those are particularly well established, and others VHF.

Some have opposed facing this issue squarely in the face because they feel that it is too serious a problem.

Gentlemen, I say when a problem becomes so serious that it takes up the time of our honorable Senators of the United States Government and the Interstate Commerce Committee, then it is a problem that can only be corrected with drastic measures.

There have been many proposals submitted to the Federal Communications Commission, the majority of which are treatments that will help only the effect, and not correct the cause of the trouble. If these many corrective measures are utilized for the purpose of deintermixture, then they will become a correction of the cause rather than the effect, and be successful.

I am referring to reduced mileage separation of VHF transmitting facilities, cochannel as well as adjacent channel, the utilization of directional antenna, reduced power operations for new VHF facilities to minimize interference, to utilize the educational reservations and hours that are not used be available for commercial operations, and permit educational groups to apply on an equal status for the facilities available and to operate them either educational or commercial as they desire.

There are many UHF grants that have recently been made in areas that are 100 percent UHF equipped. These VHF facilities should be reallocated to VHF markets, and UHF facilities allocated to the UHF markets.

RCA—Radio Corporation of America—in their recent comments to the Federal Communications Commission, after discussing intermixture at considerable length, made the following statement:

The Commission will want to consider whether deintermixture is not of such importance that it should be made a separate phase of this proceeding and given priority.

That was RCA's quotation.

Quoting again from RCA deintermixture:

One of the contributions the Commission can make to UHF at this time is to deintermix on a sufficiently broad basis to create a number of predominantly UHF markets. Without this, the public may not purchase all channel receivers in such number to justify the continuance of their manufacture.

In the recent comments of the American Broadcasting Co. to the Federal Communications Commission in Docket No. 11532, they said in these comments relative to deintermixture:

There is a pressing need for immediate action to relieve the acute shortage of comparable television stations in many of the major cities of the country and to preserve UHF until it has had an opportunity to achieve competitive equality with VHF. Failure to act promptly will mean a practical abandonment of UHF before we are in a position to determine that such abandonment will not permanently stunt the television industry and thereby indefinitely continue the existing economy of scarcity. The experience of the last 2 years demonstrates that unless prompt remedial action is taken, very few of the existing UHF stations in intermixed markets will be able to survive.

A further quote in their discussion of deintermixture, the American Broadcasting Co. had the following to say:

The error in intermixture must therefore be corrected insofar as practicable.

I concur completely with RCA, NBC, and ABC that the deintermixture must take place immediately. However, I disagree with their theory that where there are three VHF's in a market they should not deintermix. I contend that if a UHF cannot survive against one VHF in a market, how can it survive against three VHF's in a

market? Therefore, deintermixture must take place also in markets where there are three V's or more.

However, the deintermixture must be by making VHF's available to the UHF stations in those markets, whereas the opposite should occur in markets where there are fewer than three VHF stations; that is, they should become all UHF.

As I have pointed out, there are many tools that can be used to facilitate deintermixture, but unless the apparent attitude of the Federal Communications Commission is immediately changed toward deintermixture, a nationwide competitive television system is doomed, and the television industry will continue with an economy of scarcity and we will never have a nationwide competitive television system, and this scarcity will have been created by a branch of the Government of the United States, the Federal Communications Commission.

Since the Federal Communications Commission has refused in many instances to correct its error of intermixture, it seems that we, the UHF operator and the television industry as a whole, to grow to a large successful competitive enterprise, must rest our case in the hands of the Senate Interstate Committee, with the hope that you will recommend deintermixture to the Federal Communications Commission to such an extent that they will be obliged to follow the recommendations of either this committee or, if necessary, to have this committee cause to be passed legislation through the Congress of the United States, to require the Federal Communications Commission to deintermix UHF and VHF.

Mr. Cox. Just one question, Mr. Patterson. It is your position, as far as the necessity of deintermixing a market which has multiple V's in it, such as San Francisco, that, after your experience there, the availability of additional U's in that market for possible future allocation will never be taken advantage of because no one is going to undertake what you have tried and been unsuccessful at?

Mr. PATTERSON. I believe that is correct; and further evidence is that channel 20 has been a CP holder even longer than we have been a CP holder, and they have never constructed. With our experience, I don't feel that anyone else is going to try to utilize the other UHF facilities.

Mr. Cox. So the only way to get a fourth facility in San Francisco is to place some kind of a V channel there, whether it is one now in Fresno, or is a drop-in V, or whatever it may be?

Mr. PATTERSON. That is correct. There is one relatively simple way that one could be brought into San Francisco. Channel 12 has recently been allocated to Fresno. It can be moved to San Jose, which they are presently on 11. That is not much of a move from 11 to 12. Their present equipment could be readjusted. 11 can be moved to San Francisco, and thereby deintermix both Fresno and San Francisco. I am sure there are many such cases all over the country similar to that.

Mr. Cox. Would that meet the Commission's standards for adjacent channel separations?

Mr. PATTERSON. It is slightly under their present requirements of adjacent channels by a matter of relatively short distance; but it seems to be the contention of the Commission that they are going to reduce these separations in their present proceedings.

Senator PASTORE. Any questions, Senator Ervin?

Senator ERVIN. No.

Senator PASTORE. Senator Thurmond?

Senator THURMOND. No.

Senator PASTORE. Thank you very much.¹

Our next witness is John W. English. Certainly, it is not the purpose of this committee to tell you how you should present your papers here, but I am pretty much convinced that as time grinds on here, all those who are taking the position that has just been stated by the last witness are more or less all going to be saying the same thing in different words.

I mean, is there any way of getting these statements in the record and having summarization? I mean, pointing out the high spots, using more or less different language to express the same thoughts. Otherwise we have to sit here and listened to 12, or 13, or 14 pages read off. How many more witnesses?

Mr. Cox. One.

Senator THURMOND. Mr. Chairman, I was rather impressed with the way Senator Ellender conducted the agriculture hearing down in South Carolina. All of them wanted to come up and air their opinions over, and it was just complete repetition. So he confined them to anything new. If you have got a new idea, give it to us. In that way he shortened the hearings tremendously.

Senator PASTORE. I would like to see these statements get in the record. Do you feel that you have got to read all your statement, sir?

STATEMENT OF JOHN W. ENGLISH, WNAO, RALEIGH, N. C., AND WSEE, ERIE, PA.

Mr. ENGLISH. Senator, I don't have to read it all by any means. But there are certain positions that we have taken here that I believe at least in part answer some of the questions that you have previously asked. Whether our answer is correct, of course, is perhaps a matter of opinion.

Senator PASTORE. And you can't do that without reading every word in the statement?

Mr. ENGLISH. I do not have to read every word in the statement, no, sir, and I will be happy to abridge it just as much as possible. Would that be agreeable to the Senator?

Senator PASTORE. It certainly would be convenient for the committee because we are trying to conclude this hearing to the advantage of all parties concerned. Of course the important thing here is to make a record. We make a record by allowing the statement to be printed in its entirety in the record, and then you can comment on the high spots, because it isn't a question of convincing these gentlemen who take the time to come here and listen to you, it is the idea of making the record here for the people who don't have the time to come here and can study the record.

Certainly the statement is going to be in the record whether you read it word for word or have it inserted.

Then that gives you a chance to actually emphasize the points that you think are more important.

Mr. ENGLISH. I will be very happy to do so.

Senator PASTORE. That will be all right? Without objection, this statement will be made a part of the record in its entirety.

¹ See p. 1009 for additional testimony of Mr. Patterson.

(The prepared statement of Mr. English is as follows:)

PREPARED STATEMENT OF JOHN W. ENGLISH, WNAO, RALEIGH, N. C., AND WSEE, ERIE, PA.

Mr. Chairman and members of the committee, please accept my appreciation for this opportunity to appear before the committee representing the stations in which I am interested.

For the sake of the record, I am president of Sir Walter Television Co., operating WNAO-TV on channel 28 in Raleigh, N. C., serving the Raleigh-Durham market. I am a stockholder, director, and general counsel of Great Lakes Television Co., operating WSEE, channel 35, Erie, Pa. As UHF operators in these 2 markets we face 2 different situations which, when described together, run the gamut of the problems of the UHF industry. Our case is thus particularly illustrative of the overall allocations problem, and it should be of great interest to this committee.

In Raleigh, we were the first station in the market, but we are now faced with dominant and destructive VHF competition. In Erie, on the other hand, we were the second station coming in against a prefreeze V, and we are also faced with dominant and destructive VHF competition.

In both markets, we are proud of excellent operational staffs, first-rate physical facilities and superior programming.

In both of these markets, our stations enjoy primary affiliation with and the wholehearted cooperation of the Columbia Broadcasting System, and we also have a secondary program arrangement with the American Broadcasting Co., and show certain programs of the National Broadcasting Co.

In Raleigh, we start programming at 6:45 in the morning until midnight, and have an almost solid network lineup. In Erie, we start programming at 11 in the morning and also enjoy an almost solid network lineup. I am submitting for the record as appendices A and B the program schedules of WNAO-TV and WSEE. And I am distributing 1 copy of pictorial views of our facilities.

[These items will be retained in the committee files.]

The combined Raleigh-Durham market is roughly the 80th market in the United States. The Erie market is the 89th market in the United States. In Raleigh itself, our conversion ratio is in excess of 90 percent and in Durham and the surrounding area, in excess of 60 percent. In Erie, our conversion ratio is in the neighborhood of 50 percent.

It cannot, therefore, be said that in either case we are in an inadequate market, have inadequate facilities, poor programming, an unbusinesslike staff or a failing in the will to fight.

In both markets, however, we have the dubious distinction of having accumulated losses for each station in excess of \$300,000. In Erie, we are still losing money. In Raleigh, after tremendous efforts, we are little better than breaking even.

We went into this business in reliance upon the inherent promise of the sixth order and report, that UHF and VHF could exist side by side in the same areas. There has been much discussion here about what was meant by that report, but to us its meaning is typified by the Commission's language in paragraph 197 of that report, which reads as follows:

"Because television is in a stage of early development and the additional consideration that the limited number of VHF channels will prevent a nationwide competitive television service from developing wholly within the VHF band, we are convinced that the UHF band will be fully utilized and that UHF stations will eventually compete on a favorable basis with stations in the VHF. The UHF is not faced, as was FM, with a fully matured competing service.

"In many cases UHF will carry the complete burden of providing television service, while in other areas it will be essential for providing competitive service. In view of these circumstances, we are convinced that stations in the UHF band will constitute an integral part of a single, nationwide television service."

All of this has proved to be only wishful thinking.

Nevertheless, in reliance on that decision, we invested more than \$1,300,000 in the two stations and we have lost more than \$650,000 in trying to make UHF work in the areas of Raleigh and Erie.

After we began operation in both Raleigh and Erie, we realized from actual experience that the receiver circulation and other problems inherent in intermixture were so great that a basic allocation change was required. Just what are these problems?

as appendix C the results of a recent drive in the Raleigh-Durham market. This shows incidentally that we are proved to serve many small merchants in the surrounding communities. But the mists generated in Washington have clouded the thinking of time buyers in New York.

(This item has been retained in the committee's files.)

The Commission has so little understood the basic problem that it has discussed yet other channels to be inserted in our picture. So-called VHF channels taken from the military and FM to be turned over to us as their concept of an answer. We are to abandon our hard-won UHF circulation and start over with no circulation. In malice I would like to suggest such a channel for the channel 5 applicants in Raleigh. But in charity I would not wish even my opponents to have such a disastrous assignment.

Suffice it to say that such a new channel could not survive against either an established VHF or UHF in the same market. So that we would then reach the truly fantastic solution that we would require not only deintermixture of UHF and VHF, but also a further category of deintermixture of the new V's, from the old V's and the U's. We would not only have a narrow gage and a broad-gage track but an intermediate gage besides.

The solution to the receiver circulation problem is principally in the hands of Congress. We ask you to create, in effect, a tariff for the protection of this industry, by reduction of the excise tax on all channel receivers (or an approximation thereof) to 5 percent, and by increase in the tax on VHF only receivers to 15 percent. This would mean that all sets manufactured in the future would be all-channel receivers.

As far as the consumer is concerned, by the testimony which was before this committee 2 years ago, he would have to pay no more, or perhaps less, for an all-channel set than he has to pay for a VHF only receiver at the present time.

This provision would cause no substantial tax loss in the long run. We believe that any minor losses to the Government inherent in tax reduction are justifiable for the preservation of this industry; and such losses would be only temporary because the greater circulation of sets resulting from the opening up of more and more TV service would rapidly reduce any revenue loss.

That is the long-range solution.

Equally necessary as a part of the whole plan is immediate action to make facilities in each market compatible. To accomplish this we recommend deintermixture in areas such as Raleigh and Erie. Where UHF is now strong and could grow yet stronger the market should be maintained as all UHF, but where UHF is at a standstill, the Commission by reverse deintermixture should make available more VHF channels in such markets.

WNAO-TV in Raleigh filed the first petition for deintermixture in the United States. Our petition was filed before any VHF station was on the air in that market. That petition was denied, and channel 11 in Durham was allowed to go on the air.

We subsequently filed for deintermixture for Raleigh alone where channel 5 is still in hearing status. That petition was also denied without reaching the merits of our petition. We have asked for permission to intervene in the Raleigh channel 5 case. That also has been denied.

We filed a petition for allocation of another VHF channel to Erie. This was also summarily denied.

We have filed our proposals again in the present so-called nationwide allocation proceeding. I am submitting as appendixes D and E, copies of these proposals.

(These items have been retained in the committee's files.)

We do not anticipate that our proposals will be considered in the proper atmosphere. Every action except one that the Commission has taken on petitions, proposing help for UHF, has been directed against UHF. The only exception was one much criticized—the right of networks to own some UHF stations. That slight reprieve for UHF can offer little solace to an independent operator.

Every other action of the Commission has evidenced an obstinate desire to destroy UHF, ever greater coverage for VHF, an ever greater attitude of discouragement for UHF. Either the Commission is ignorant of what it is doing, and on that I can, in charity, make no comment, or it is operating under the fundamental error that UHF should be eliminated.

If so, it should have the courage to come out and say so, and we can meet the issue squarely. In our markets and in many others every legal attempt has been made to obtain redress from the Commission. Every petition has been dismissed without judgment on the merits, with great tenderness for the equities

of VHF applicants, with total disregard for the equities of VHF applicants, with total disregard for the equities of our own organization. I have never before realized how far administrative procedure can depart from commonsense due process.

It is significant that the thinking of the Commission has so far changed from the language in paragraph 197 of the sixth report that in the initial decision of the hearing examiner, in the Raleigh channel 5 case, handed down the 19th of April 1955, channel 5 was termed "the dominant TV medium" in the Raleigh area. That means that it is now taken for granted by the Commission that a potential VHF will be the dominant TV medium in a given area. I understand that certain Commissioners have advocated doing away with UHF altogether. That type of thinking is utterly wrong. UHF is every bit as good as VHF. It is subject to artificial disadvantages, however, that could be overcome by applying the principles advocated by us.

We believe that if the Commission does not take positive, immediate, and strong action to assure that UHF will survive and grow strong, the country will be left with only a handful of stations, and the fault will be squarely on the Commission.

What is the choice before Congress and the Commission? It is really the choice between a competitive TV system in the American way and a neat, orderly, regulated, assigned public-utility concept which would create inherent tragedy and ultimately destroy a great industry as we know it. In this fight we feel that we are fighting not only for our own stations in which we have a great stake, but we are fighting for a truly competitive, diversified, nationwide television system for the people.

Network investigations and network or station regulation will not be necessary if enough channels are available to insure competition. But if there are only a few regional stations, investigation, regulation, and an iron straitjacket will be found on our industry. I prefer my poker with reasonable rules, but I don't want to sit in a game where the cards are marked against me. UHF television is that type of game.

There has been much discussion of how to provide service to everyone, but service is not merely the picture on the screen. Service is the possibility of a local picture on the screen. If the Commission crucifies the United States on a V-shaped cross, it will forever deny to hundreds of communities the possibility of local TV stations, and in the development of the art that possibility clearly lies in the future, if UHF survives. Is the Commission so omniscient as to say that the United States will remain forever in its present pattern? There are small communities now in the South and in the West, particularly, which may soon be great communities. Such communities should be entitled to local television. These new areas, and many existing markets, will have that service denied them if UHF does not survive.

Let us make another thing clear, UHF cannot survive in a few isolated areas. There cannot be a few UHF islands in a sea of VHF. It must be some VHF islands in a sea of UHF. That is the way the spectrum is allocated, and that is the way the geography should be.

Finally, as to our specific recommendations for our cities, in Raleigh-Durham, we want the Commission to withhold a grant on channel 5 until it sets down the rules, the final rules, under which we have to operate. We do not care if another station comes in: let the winner of the present hearing come in as a "U," and we will meet their competition on equal terms. This will strengthen UHF. If later, in its ineffable wisdom, the Commission decides that eventually channel 5 should be in Raleigh, as part of an overall assignment, let them grant it, but give us justice at the same time.

In Erie, now a VHF market, the Commission should grant us permission, as we have requested, to operate with a directional antenna on channel 6. Fortunately, Erie, geographically, is an excellent market for such an operation.

But let's not tie these actions to a distant and nebulous future. We have hard business realities to face. We are running up losses that may never be recouped. We cannot long continue to suffer such losses. We want to know, are they going to do something or aren't they? We wanted to know it months ago. And we still want to know it.

MR. ENGLISH. Senator, at the outset, I am representing here two television stations, both of them UHF stations, one in Raleigh, N. C., and the other in Erie, Pa. I am president of the Raleigh station, and I am general counsel of the Erie station. They are both high-powered

stations in the sense that they have some 185,000 watts effective radiated power.

In Raleigh we have about a 90 percent conversion ratio. We were the first station on the air there. In Erie we went on the air as the second station against a prefreeze V, and therefore we have all of the problems inherent in that situation.

In both stations we have staffs, facilities, physical and otherwise, and studios that are actually superior to the VIIF competition.

Senator POTTER. What is your rate of conversion in Pennsylvania?

Mr. ENGLISH. In Pennsylvania it is roughly 50 percent, sir. When I say 90 percent in Raleigh, bear in mind that goes down to, say, some 60 to 65 percent in Durham, 22 miles away, and would vary, depending on the direction of the signal, because VHF competition gets stronger toward Greensboro and Greenville, N. C., where there is a VHF signal coming toward Raleigh.

Senator PASTORE. How much competition do you have in Raleigh? How many stations?

Mr. ENGLISH. Channel 11 in Durham, 22 miles away.

Senator PASTORE. That is a V?

Mr. ENGLISH. That is a V, direct competition. We have secondary competition from channel 2 in Greensboro, which is, however, 65 miles away, and channel 7, I believe it is, in Greenville—again some 70 miles away. But it is a fringe proposition.

In Raleigh itself, channel 5 is in contest, and we are one of the stations which has taken the position that channel 5 should not be popped in on top of us after this period of time, but rather that the winner of the channel 5 situation should be given a U until at least we know the final rules we are going to operate under.

When those rules are solidified, you might say, then we will operate according to the rules as we know them now. Under the present state of the situation, sir, the uncertainty of the national situation is our biggest problem.

Senator PASTORE. Let me ask you this, Mr. English: If that new channel coming to Raleigh were a U instead of a V do you feel that the citizens of the area would be given the best type of television reception?

Mr. ENGLISH. Yes, sir, and I will explain that in several ways. First of all, we have an excellent terrain, a beautiful terrain, Senator.

Senator ERVIN. All of North Carolina is that way.

Mr. ENGLISH. We have an excellent terrain from the viewpoint of UHF. Our signal, we feel, is actually superior to a VHF signal under the same approximate given circumstances. If we are given the least modicum of encouragement, we will improve it yet further. But actually a U coming in there can be just as good a job as a V.

Senator PASTORE. Why will the V hurt you? If you have 90 percent conversion and the people who are seeing your programs now have sets on which they can either view a U or a V as they choose, and you say that the U gives you such wonderful reception, then why do you object to a V coming in? I am not being critical, I am just trying to get this on the record. What difference does it make to you?

Mr. ENGLISH. The largest hurt in the present state of the situation, you might say, is not a hurt as far as the local individual or as

far as the local advertiser is concerned, but as far as the national advertiser is concerned.

Senator ERVIN. It is difficult for a U station to get the national programs where there is a V station; isn't it?

Mr. ENGLISH. Let me point out something of some interest. I would like not to trespass upon your patience, Senator, but—

Senator PASTORE. I have all the time in the world. Don't apologize for our time. We are being paid to 6 o'clock. Don't apologize for taking up our time. That isn't the question at all. I hope we are not misunderstood on that.

Mr. ENGLISH. I feel I have some things to say here that will be refreshing or otherwise.

Senator PASTORE. Go ahead and say it.

Mr. ENGLISH. Here is what we are talking about. The basic problem faced by UHF stations is that most receivers can receive only VHF signals. That is the general overall national problem. It is a question of sufficient circulation, since there are never as many converted receivers as there are VHF receivers. Even in Raleigh where we have 90 percent, you still have that 10 percent.

Also there is a tendency in the present atmosphere of skepticism about UHF to look with great doubt on UHF claims and at the same time to accept with almost childlike credulity the most exaggerated things that VHF operators say in the same market.

Senator PASTORE. In other words, the argument you are making, Mr. English, is this: That even at best, even though you have 90-percent conversion, there is a margin of 10 percent, and that margin of 10 percent means that this new station that comes into the field brand new will have an advantage over you, who have been working that district, by getting better programs from the networks.

Mr. ENGLISH. That is right. Let me go on. I think I can bear this out with specific examples. This magnifies the real difference. In other words, the acceptance of any UHF claim over a VHF claim actually magnifies the real difference.

Thus while in Erie we claim 93,000 sets, the VHF station claims 222,000. That is what you take to New York with you. This in the face of the fact that in that market, we cover a larger physical territory with superior facilities. You can see this from comparable coverage maps of the two stations which I have in my statement. Actually our tower is higher. Erie is surrounded by a ridge and our signal goes over the ridge and theirs doesn't. Yet the 222,000 claim is accepted, and our claim would be looked upon with great skepticism. That makes it not easy to sell.

Senator PASTORE. In Erie, were you there with U before the V came in?

Mr. ENGLISH. No, sir; that is where we are fighting the uphill fight. In Raleigh, our claim of 140,000 sets is contrasted with a VHF claim for Durham of 285,000 sets. This means that we must sell a better product at a lower rate. Local advertisers know the truth and I submit herewith an appendix C which reflects the results of a recent drive in the Raleigh-Durham market.

In this appendix C, which you all have, we have got 287 new accounts. It is interesting to point out that these are the places where the advertisers were located. In other words, there were advertisers buying our station from surrounding communities, so that there was

a pretty good signal there, and these advertisers, local advertisers, were buying our station. But that doesn't sell us in New York.

We can sell locally, and as a matter of fact we are very proud of the fact that we have outsold our VHF competition on the local level consistently.

Senator POTTER. What network do you have there?

Mr. ENGLISH. CBS, sir, in both markets.

Senator POTTER. And Durham has NBC?

Mr. ENGLISH. NBC, that is correct, sir.

Senator POTTER. I assume your fear would be that if this new channel should be allocated in Raleigh, that you would lose your CBS affiliation?

Mr. ENGLISH. That would be a fear, but we have had every assurance that CBS will stay with us. We certainly hope that they will. They have been enormously cooperative with us. In both of these markets we would like to pay a tribute to the fact that CBS has done a terrific job for our UHF stations. They have done a great job, and as a matter of fact, in Erie they left the V, where they were primarily CBS, and came to us, which is a rather extraordinary situation.

Mr. Cox. But business conditions might finally force them to make a change?

Mr. ENGLISH. Business conditions could very well change that, and of course without CBS, we could go bury ourselves someplace.

Mr. Cox. Do you get paid for the CBS program that you carry?

Mr. ENGLISH. Yes, sir. And as a matter of fact, I submit on this point an appendix A, which is the program schedule of WNAO, which shows that we go on the air at 6:45 in the morning, and stay on until midnight, and we have a very substantial lineup—with two exceptions we have all of the major CBS programs.

In WSEE in Erie, which is another affiliate, we have all the CBS programs. Could we incorporate this?

Mr. Cox. It can be incorporated by reference to the fact that it is in the files of the committee, so that anyone wishing to see it can come and pick up one of the copies.

Senator PASTORE. In other words, this exhibit that Mr. English is talking about will be a part of the record and be held in the files of the committee, and will be referred to in the record so that anyone that is interested in it could handily look at it.

Mr. ENGLISH. Yes, sir. Thank you, Senator.

(The document above referred to was incorporated by reference, and will be filed in the committee files.)

Senator ERVIN. What would you say as to the difference between the capacity of advertisers to buy advertising sold for a U station as contrasted with a V station?

Mr. ENGLISH. I am not sure that I understand your question. You mean the rate, sir?

Senator ERVIN. Yes.

Mr. ENGLISH. Our rate is substantially lower than the V.

Senator ERVIN. Your advertisers in these communities here, do you anticipate that if you had only a V station there that they would be able to get advertising at the same rate?

Mr. ENGLISH. I frankly believe, sir, they would find it almost impossible to afford to advertise on a V station, particularly because—the V station is a splendid operation. I don't mean in this testimony

to attack either of the opponents. But the V station right now is loaded with national advertising. We are not. We have been fortunate in getting probably a fair share for a U station.

Senator PASTORE. In other words, what you are saying, Mr. English, is the your U gives you perfect reception in your locality?

Mr. ENGLISH. That is correct, sir.

Senator PASTORE. And that you are not objecting to the station coming in so that the public may have 2 instead of 1?

Mr. ENGLISH. Not at all.

Senator PASTORE. But your argument is that if it does come in, it ought to be the same kind of a station as you have. It ought to be another U.

Mr. ENGLISH. Senator, let us put it simply this way: We are perfectly willing to compete with anyone on an equal basis. But we don't want to have the cards marked against us, and in this game, right now, we are playing poker with marked cards against us in UHF television.

Senator PASTORE. Would you take the position that the viewer will be injured if the U makes it in Raleigh?

Mr. ENGLISH. No, sir. And let me tell you why again, because you have Greenville, you have Greensboro, you have a station in Bethel, which is a UHF station; you have a station in Wilmington; in rural North Carolina, for example, they can get us or they can get someone else with a beautiful picture. You have little Washington, N. C., so that actually North Carolina is covered like a tent, and it is well covered. It is a very fortunate State, certainly in the eastern part; we put it that way, because the western part, due to terrain difficulties, as was testified by Mr. Thoms, has many difficulties that are not inherent in the eastern part, the Piedmont, and the coast.

Senator PASTORE. Have you objected to channel 5 coming in?

Mr. ENGLISH. Yes, sir. I will review that for you.

Senator PASTORE. No. I don't want to get into a case here now.

Mr. ENGLISH. Let me say this, Senator: We were the first UHF station in the United States to put in a petition for deintermixture. For good or bad, we feel that we helped to hatch the egg. That was denied before channel 11 went on the air in Durham.

Then subsequently we filed a petition for deintermixture in Raleigh alone, and that was denied. Then we filed a petition to intervene in the channel 5 fight, and that was denied.

So we feel—and I will be perfectly frank, Senator, in saying that I have never felt before that administrative process could so far depart from commonsense due process, because we feel that we have used every legal procedure within our power other than this appeal to Congress, to have some opportunity of preserving our property.

Mr. Cox. Did you ever get a hearing from the Commission on that matter?

Mr. ENGLISH. No; we have had no hearing on the merits whatsoever and no decision on the merits whatsoever.

Senator PASTORE. If the Commission decided to drop in a U instead of a V in Raleigh, you would remove your objections?

Mr. ENGLISH. Yes, certainly, as far as the U was concerned; absolutely. As a matter of fact, there is an available channel.

Senator, you have asked a number of questions here. We have certain specific recommendations which we would like to present to the Commission. On page 6 of the statement here, it is suggested

that the solution to the receiver circulation problem is principally in the hands of Congress.

We ask you to create, in effect, a tariff for the protection of this industry, by reduction of excise taxes on all-channel receivers or an approximation thereof to 5 percent, and by an increase in the tax on VHF-only receivers to 15 percent.

This would mean that all sets manufactured in the future would be all-channel receivers.

If you recall, Senator, in the previous hearings before this committee, the suggestion was made to remove the excise tax from all-channel sets. Actually that was opposed, if I recall, by the Treasury Department on the basis of the fact that it would constitute too great a financial loss.

I am suggesting a reduction, not a removal, which would cushion the financial loss to the Government; but at the same time the 15 percent wouldn't mean anything because frankly they wouldn't manufacture any VHF-only sets with a 15-percent tax. They would manufacture all-channel.

As far as the consumer is concerned, by the testimony which was presented before this committee 2 years ago, he would have to pay no more or perhaps less for an all-channel set than he has to pay for a VHF-only receiver at the present time.

This provision would cause no substantial tax loss in the long run. We believe that any minor losses to the Government inherent in tax reduction are justifiable for the preservation of this industry, and such losses would be only temporary, because the greater circulation of sets resulting from the opening of more and more TV service would rapidly reduce any revenue loss.

That is the long-range solution. When I say long range, it is understandable that by the obsolescence of TV sets as they now exist, that would mean that all sets would be all-channel in roughly 5 to 7 years, although long prior to that time you would have a very substantial circulation of all-channel sets in all markets. So the other allocation problems would be substantially reduced.

But that is long range. Equally necessary is immediate action to make facilities in each market compatible. To accomplish this we recommend deintermixture again in areas such as Raleigh and Erie. Where UHF is now strong the market should be maintained as all UHF. That is our position in Raleigh. But where UHF is at a standstill, the Commission, by reverse deintermixture, should make available more VHF channels in such markets.

I am not going into the long history of what we have done in Raleigh to try to accomplish that. May I say this. We do not anticipate that our proposals—these proposals that have been offered as part of the record, that we filed with the Commission—will be considered in an altogether favorable atmosphere.

Every single action that the Commission has taken, except one, on UHF has been against UHF. The one is the matter that was much criticized of allowing networks and other large operators to have two more UHF stations. That helped UHF a bit, but it isn't much solace to an independent operator such as we are.

The Commission has had an obstinate desire to destroy UHF, certainly judging by its actions. It has given ever-greater coverage to

VHF—high towers—an ever-greater attitude of discouragement to UHF.

Either the Commission is ignorant of what it is doing—and on that point I make no comment—or it is operating under the fundamental error that UHF should be eliminated. If so, it should take the courage to come out and say so, and we can meet the issue squarely. In our markets and in many others we have taken every legal recourse and we have gotten nowhere.

Senator ERVIN. Let me ask you a question on that. If you could be granted a V station in Raleigh, would that remove your objections to channel 5?

Mr. ENGLISH. Of course it would remove our objections to channel 5, Senator. Frankly we would be very, very happy with a V station in Raleigh. Let me say, however, that the granting of a V station in Raleigh would take care of our problems and we would be very happy and very grateful to the Commission and anyone else who could help us.

But it would not solve the national problem.

Mr. Cox. Doesn't it present some engineering problems that are a little greater than the reverse process would be?

Mr. ENGLISH. That is correct. It would present the separation problem. It would present the possible necessity of a directional antenna. Almost every V channel that would be available there would have a slight, not perhaps too serious, but a slight difference in the separation distances involved with cochannels elsewhere.

Mr. Cox. Doesn't it also more or less create a top limit, then, of two stations unless you can squeeze in another V? Whereas with U's, there is room to grow because they are rather plentiful?

Mr. ENGLISH. That is correct, sir. Here is the basic thing you are faced with, and it is very basic. What is the choice before the Commission and before this Congress? It is the choice between a competitive television system as we hope it to be and a neat, orderly, regulated public-utility concept. That regulated public-utility concept will have in it inherent tragedy and would destroy television as we know it now.

The only way that you are going to have truly competitive television is to have sufficient channels available. We have discussed, Senator—you have discussed many times—the possibility of network investigations. Network investigations are not necessary. If you have sufficient channels available to allow for true competition between the various networks, to allow room for the growth of programs of another network, certainly to allow room for the growth of local television stations the way they should be allowed to grow—

Senator PASTORE. It stands to reason, doesn't it, that if every locality in this country had 4 channels and you had 3 networks, you would not have any problem about investigating the networks. The competition would take care of itself.

Mr. ENGLISH. Absolutely. They would be fighting for the business.

There has been much discussion about how to provide service, to offer everyone service; but service is not merely the picture on the screen. In other words, there has been a great deal of worrying about whether someone at a certain distance will get a signal and so forth. But it is a lot more than just having a signal. Service is the possibility of a local picture on the screen. If the Commission crucifies the United States on a V-shaped cross, it will forever deny to hundreds

of communities the possibility of a local TV station; and in the development of the art, that possibility clearly lies in the future if UHF survives.

Let me say there, Senator, that with the development of all-channel tuners—those will develop with the ingenuity of the manufacturers if they have a reason to develop them—with the development of better antennas, they will also be developed; and incidentally, UHF antennas are not bad at all; in many ways they are better than VHF antennas.

Finally, with the development of modern methods of television, local telecasting, you can bring the cost of this thing down to the point where some communities in our area, Senator, in Goldsboro, in Rocky Mount, in a lot of other communities 50 miles from Raleigh, will never have local television unless UHF survives. They have all got UHF allocations, but they will not be worth the powder to blow them to kingdom come unless something is done about the national picture.

Another matter: UHF can't survive as a few little islands. If we do a fine job in Raleigh—and I think we have done it—we can't get anywhere in Raleigh and in Norfolk and in Wilkes-Barre and in South Bend and a number of other places where UHF has done pretty well; we can't get anywhere if that is UHF.

First of all, the UHF receiver, as I pointed out, has to be a nationwide thing and it can be, without costing any money to the consumer. That is item one.

Item two: If you preserve UHF as we know it now, and if you tell the advertiser in New York—and don't blame him because he has had every reason to be discouraged just as we have; we would be dead if we weren't bullheaded—if you give him some encouragement, he will advertise on UHF stations, particularly when he knows they are good. He does it now, but he doesn't do it often enough.

We want the Commission to withhold in Raleigh-Durham a grant on channel 5 until it sets down the rules, the final rules, under which we have to operate. We don't care if another station comes in.

In Erie, which is a VHF market, we want permission, as we have requested before, and were turned down by the Commission, to operate on a directional antenna on channel 6. Fortunately, Erie is a good place for that. There is only one other thing I would like to mention that I skipped over here, Senator, and that was that the Commission and a number of other people have talked about giving us some channels from the military, the FM. Actually, that is out of Alice in Wonderland, because if you have those channels, those channels couldn't compete with an established U.

If I had malice in my heart, I would suggest that you give that type of a V channel to our opponents on channel 5 in Raleigh. But I wouldn't even wish our opponents such a disastrous assignment. Let me say that you remember the old days in the railroad industry, we used to have narrow-gage and broad-gage tracks. Here they are giving us narrow-gage, broad-gage, and intermediate-gage tracks when they are talking about some of these peculiar V's, so-called.

I thank you for your courtesy.

Senator PASTORE. You have been very nice, Mr. English, and have cooperated with the committee. We thank you very much.

Mr. Phillips? First of all, Mr. Phillips, do you want your statement to be made part of the record in its entirety?

STATEMENT OF NICK FILLIPS, WDAV, PITTSBURGH, PA.

Mr. FILLIPS. Yes, sir; both statements.

Senator PASTORE. Without objection, that will be done at this point. (The prepared statement of Mr. Phillips is as follows:)

STATEMENT OF NICK FILLIPS, WDAV, PITTSBURGH, PA.

My name is Nick Phillips. I was born in Pennsylvania, and reside in the city of Pittsburgh.

First, I want to thank you for this chance to testify. We hope, from the matters presented in this forum, that there may be a better understanding of the problems confronting those broadcasters who operate television stations on what are commonly called the ultrahigh frequencies.

I have studied the UHF problem for the last 8 months. I have talked with station owners, Commissioners, and manufacturers of UHF equipment. I cannot see why UHF cannot be successful. According to a good many of these station owners and station representatives who come before the FCC Commissioners, they are all complaining about UHF and what are the FCC Commissioners going to do for them? As you know, UHF has problems, and the easiest way to solve these problems is to find out the main reason for this failure. I have talked to station owners in the different parts of Pennsylvania. In mixed markets where NBC and CBS carry the two stations, if a third station is in the area, he has no network affiliation, so in order to survive, he must solve the necessary problems to compete with the network shows. Therefore, this calls for a UHF network to produce shows to feed to the stations that are not network affiliated.

UHF's No. 1 problem is power for coverage. Now that the FCC has allowed UHF to go to a million watts, which costs around \$250,000, it is more to be added to the station.

No. 2 is the problem of converters. Take, for instance, a market like Pittsburgh, Pa., where there are 700,000 VHF sets in the area and only 300,000 are UHF, so this is a question of conversion. To add a UHF converter and a UHF antenna to pull in the UHF station the average family must spend \$50 to \$60 more. Before they spend this kind of money they do without it. So UHF is at a standstill. I have contacted several companies who make UHF converters and antennas and they are able to come up with a converter and antenna to be sold to the local people for \$5.95 and \$9.95. This converter and antenna can be installed by the individual owner of the set without the cost of hiring a serviceman to connect it.

If the average station owners had worked these problems out in the beginning, and gone into these little details, such as converters, power, etc., they would not be in the position they are today. Although it is not the fault of the UHF station owner, it is the fault of the television manufacturer, who did not put UHF and VHF converters in the set when it was sold to the public.

I have also contacted a good many families, and you can go into 10 different homes and say to the average man and his wife, "What is the difference between UHF and VHF?" Eight out of ten will say, "I do not know." Therefore the public has not been educated to the difference between UHF and VHF. Had they been, they would surely demand a UHF and VHF converter on their sets when they purchase them.

It is the duty of the FCC Commission to allow one of the Commissioners to educate the people, so that when buying a television set they will be sure their sets will convert to UHF and VHF. Therefore the average person would not have to spend an extra \$50 to \$60 to pull in a UHF station.

Most families who are working in Pennsylvania and have 3 or 4 children can hardly afford to keep their families going on the salary they are making, let alone spend an extra \$50 to \$60 after having paid \$200 to \$300 for their television set.

I have personally spoken to the heads of families, and feel that, if the Commissioners would appoint somebody to do the same not only in the city but in the suburbs, and ask the family if they know the difference between UHF and VHF, and whether they could pay the difference to convert their sets, their answer would be "No." But if asked whether they could and would pay \$5.95 and \$9.95 for a converter, they would say the price was reasonable, and they would be happy to buy one.

The No. 3 problem is that a UHF station, after having power for coverage and converters to compete and match with the VHF sets, comes the problem of sponsors. The average sponsor when buying UHF time says, "I can get good shows on VHF stations."

Therefore, in order to survive we must produce terrific shows, and shows that can draw an audience, to be able to tell national accounts that we have shows that can draw a good audience because they have top rating, and also can go one step further. We can help a small account, who wants to get in an area, merchandise his product in the market by getting mass displays of their products in different stores.

I have a plan set up, but it is not for this record. I believe, by taking a station in Pittsburgh, Pa., and producing 8 hours of local shows and feature films, we can send our show from Pittsburgh into other parts of Pennsylvania, such as Johnstown, Harrisburg, Scranton, Allentown, and the stations who have a smaller market to work from, and who cannot afford to produce these live, big shows, until their station is equipped properly, and has converters to compete with the VHF market. Thus, they can sell the local accounts, and be able to compete against some of the big shows that are being put on the air by the networks.

A good many station owners, who came to the hearing of the subcommittee, told what was wrong with the UHF market and the UHF problem, but did not try to solve the problems by going out looking for the answers. I have taken 8 months of my time to study this problem, and to work it out. I believe I now have the answer to the UHF problems. Although NBC and CBS have monopoly in all the major markets, there is no reason why a UHF network could not give them a run for their money. Until the time comes that all manufacturing companies will come out with an all-round UHF and VHF set, which will be 2 or 3 years from now, for the time being we will be on the right track to prove UHF will go forward as long as we have the same standards and the same qualifications that a VHF station has.

To solve the biggest problems, (1) is coverage, (2) is converters, to get more listeners, and (3) good live shows and films. By giving the local public good shows of interest, I am sure the average American family will be happy to enjoy them. With a good merchandising plan that we have in mind, we are also sure that we can get our budget with the national accounts.

I feel that all applicants for television stations would either build the station or turn them back to FCC. They are just sitting and waiting for someone to come up with the answer to solve the UHF problems. For the people who drop in and out, there should be also a stop to that. I feel the FCC Commissioners should give a license to the small fellow to let him get started in a business such as the television field.

Also, I want to be able to put a station on the air, with the idea to help thousands of disabled American veterans to work there. Teaching them to operate a television station, and help themselves to forget their handicaps. I have talked to many disabled veterans, those who are in wheelchairs and those unable to get around. They would like very much to get started in this type of field. We can also open a training school to teach them television work and also for them to practice. In my study, I have run across a lot of talent among disabled veterans. We can find jobs for them to do as copywriters, program directors, technicals, or musicians. There is a lot of good talent among these veterans, and I am sure we will enjoy what we are doing for these disabled boys. All you have to do to prove this point is ask a disabled veteran, who is in a wheelchair, "Would you like to work in a television station?" and you will see what answer he gives. Most of these jobs in the television field are sitting-down jobs at the controls, and the average disabled veteran, who has to spend his life in a wheelchair, will be very glad to learn this exciting work.

I believe you should give the small man a chance in this television field to do something, not for the big companies, but for the American boys who need the help but don't have the kind of money to go into a television station, as it takes a million dollars or more.

I knew ex-Commissioner Hennock was strongly in favor of education, and to help the average American person to become better educated. I feel that if we follow some of Commissioner Hennock's ideas, a small man would be able to get a start.

I am not much for making speeches, but I am bringing out true facts, as the average person would bring them out if they were to appear before you. I wish you would weigh the contents of my statement, and I would be glad to point out and produce the converter and antenna I have talked about at the cost of \$5.95 and \$9.95 to the average American family, until the time comes that all manufacturers of television sets will have UHF-VHF. I would also like to point out that Senator Johnson's bill for the removal of the excise tax from all UHF receiver sets will also be a big help. Let's give the American people a chance to enjoy television in their homes at a real low cost. Also, have someone appointed or sent out to 10 homes in the area, even in Washington, D. C., to ask the average family about UHF and VHF. Prove these points to yourselves.

Remember, gentlemen, there are millions of people that are in the very low bracket as far as income, and their greatest pleasure and enjoyment is television. Also, old retired people can sit at home and enjoy television. The people in Pittsburgh, Pa., do not have enough television stations, so they can have their choice of different type shows to enjoy in an evening after a hard day's work. If you want to help the average American family, let's give them television at its best, and let them enjoy good entertainment.

I also feel that if everything is put on the UHF band, that would also solve part of this problem. However, it would take 4 or 5 years to convert this to all UHF. If the FCC Commissioners can see that this change is possible, it would also help solve the problem.

It is the firm intent of the founders of National UHF Television, Inc., to locate new and budding talent wherever it may exist in the field of singing, instrumental music, comedy, operas, musical comedy, and in fact, covering every branch of the field of entertainment and to convert this talent into lucrative, professional careers. For we sincerely believe that the unknown of today, given the proper opportunity by means of television will surely become the stars of tomorrow.

It is not our intention to spring this new talent on the viewing public over national television networks only 3 acts at a time, such as is now done, but rather 150 to 200 acts weekly. This new talent will be located by us through local newspapers, music teachers, voice and dramatic coaches and training schools for the theater and concert stages, etc. We will televise these stars of tomorrow, first, to their friends and neighbors in their own States, who will be rooting for them to make good nationally, if they have shown promise to the friendly eyes and ears of their neighbors. And so you will find the little girl from Tennessee finally being acclaimed by the Nation, including the North, while the youngster from Minnesota finds national acceptance throughout our great country, including the South.

There is a great to-do in newspapers and magazines these days about the juvenile delinquency problem. Our talent search I speak of in this announcement will go a long way toward wiping out this era of juvenile delinquency as just a bad memory. The youth of today and tomorrow will be helping to support their parents at earlier years than ever before, instead of being a problem to those loved ones who brought them into the world.

You cannot show me very many stations that carry colored entertainment. Oh, yes, you will find 2 or 3 on a show, but what I am referring to is an hour show of nothing but colored entertainers. There are many good colored singers, dancers, musicians, comedians, etc. You will find young, talented entertainers looking for a chance to show their friends and neighbors just what they can do. They, too, want to see people of their own race on TV shows.

The National UHF Television, Inc., will have headquarters in Pittsburgh for western Pennsylvania and Philadelphia for eastern Pennsylvania. We will televise our shows 8 hours a day to start with and gradually we hope to be able to double our broadcasting period. Of course, we will have professional entertainment field, which I referred to above, new discoveries and also programs of athletic events such as boxing, basketball, football, and baseball games, etc., and have a complete roundup of daily news events as they happen all over the world.

We have contacted many national and local advertisers and they are ready to go to the limit in sponsoring most of our programs. But many of our programs will carry no advertising at all at the beginning, but will be sustained by our own company in the public interest.

In other words, instead of confining ourselves to just making money, this company will pour back a great deal of the gross income we will collect from the sponsors for public services and to start the new talent off on the right foot, as few large business concerns will risk expenditures in sponsoring unknown people.

Now I come to one of the most important phases of these new plans with regard to public services and that is the educational field. We will have at least 1 hour daily of interesting educational programs for youngsters, for adults who have had no schooling, and for everybody in all age groups who have had schooling or not, with televised lectures given by the greatest authorities in every subject, history, science, medicine, domestic and economics, etc.

SOLUTIONS OF UHF PROBLEMS

1. The FCC Commissioners should appoint someone to educate the public in regard to the difference between UHF and VHF television. The people should be told, when buying a television set in a mixed market, to be sure that UHF converters are on the set instead of having the poor people spend extra money to convert their set over to both UHF and VHF.

2. The FCC Commissioners should not let a UHF station go on the air unless they have greater power. These steps will help to solve some of UHF problems.

3. If converters are put out at a low cost to the public, to those who already have sets, it will be easy for them to pull in UHF stations for better programs, more listeners for their money.

4. If the Phillips plan is put in effect, UHF will be on the way to surviving and being able to give the public better television.

5. As a good test for deintermixture, Pennsylvania would be a good State in which to start. There are 49 UHF television stations allocated to the State of Pennsylvania, with only 8 VHF now on the air and 2 more to go on, but not knowing when. These 2 can be stopped; therefore, there are only 8 VHF to worry about against 49 UHF. By giving the VHF stations a year or two to change over to UHF, this can solve some of the problems for deintermixture of UHF and VHF television stations, without going at the problem all over the country.

6. The FCC should consider freezing all applications and all contract permits until this thing is ironed out, which is a very, very important step. With a little cooperation, this thing can be worked very nicely. It is up to the people who make the rules of the FCC to put a few of these new rules in action.

(The witness' second statement, a memorandum coauthored by Norman Baum, is as follows:)

STATEMENT OF NICK FILLIPS, WDVA, PITTSBURGH, PA.

The purpose of this memorandum is to set out, in a concise, manifest form the UHF problem recognized in the Plotkin report and Jones report on the Investigation of Television Networks and the UHF-VHF Problem conducted by the Committee on Interstate and Foreign Commerce in the Senate of the 84th Congress.

The UHF problem set forth herein will be limited to the survival problem that faces the individual UHF station owners. The solutions to this problem, discussed herein, are those that are recommended by the Plotkin and Jones reports and a proposed solution by Mr. Nicholas Phillips for the UHF problem in the State of Pennsylvania.

Television stations are licensed to operate in the public interest, but in order for the station to sustain and maintain this obligation, they are permitted to protect their private interests by selling time on their facilities.

It is the sale of time which enables the station operator to survive economically and fulfill his obligation to serve the public interest. The future of UHF lies in economics. The stations are financial enterprises which exist only when the station owners can earn a profit and serve the public interest.

The specific problems faced by UHF are as follows:

1. **Programing.** The problem of programing consists of obtaining popular programs which would induce advertisers to sponsor or spot announce the program. The UHF station owner faces exorbitant costs to produce such a program.

2. **Receivers.** The problem of receivers is that the manufacturers are not producing a sufficient number of all-channel receivers, and the cost of converters is too expensive to induce VHF receiver owners to convert their sets to UHF.

3. **Advertisers.** Advertisers are not attracted to spend moneys because of the above two problems. Programs which do not attract the public do not induce advertisers to spend money for spot announcement on such programs. Where there is poor circulation, advertisers will not spend money because the cost to them would be too exorbitant per receiver.

4. **Transmission.** The problem of UHF transmission is that the signals do not travel as far as VHF, with many holes occurring in the service, caused by a lack of better high power transmitting equipment.

5. **Affiliation preference by network with VHF.** Networks prefer affiliation with VHF. One of the principal reasons is that AM affiliates who enter VHF are given network affiliation preference.

Further, when a VHF transmits subsequent to a UHF station affiliate, the UHF affiliation is removed to VHF for several reasons, among which are more area coverage by VHF signal and more abundance of VHF receivers or more availability of VHF receivers.

The above problems are particularly faced by UHF stations in those areas served by two or more VHF stations. Where there is no VHF competition or one VHF station, the UHF station can be successful if the market is large and there is good management, in that popular programs and advertising revenues may be obtained from networks. But as soon as a VHF enters the same area, the UHF strangulation commences.

Some of the advantages that the VHF stations enjoy over a nonaffiliated UHF station are:

1. The VHF stations are affiliated with 1 of the 3 networks, that is, NBC, CBS, and ABC. The affiliation enables receipt of popular programs from the network and of advertising revenues through the network.

2. All receivers can readily receive VHF signals which thereby enables the VHF station, in addition to receiving advertising revenues through the network, to better obtain national, regional, and local advertisers to spot advertise on their stations before and during nonsponsored network popular programs.

The very existence of UHF depends on profit, which must come solely through the sale of broadcast time. This sale is virtually impossible where there exists, in the same service area, network affiliated VHF stations.

Through lack of obtaining popular programing, there is no inducement for national, regional, or even at times local advertisers to purchase broadcast time, particularly when there is a lack of a sufficient amount of receivers. There can be no doubt that prospects for successful UHF operation under such circumstances are dim.

The solutions recommended by the Plotkin and Jones reports are briefly as follows:

1. **Move all VHF to UHF.** This is desirable over a long period of time, but cannot be done immediately because billions of dollars' worth of equipment would be rendered obsolete by such a move. This would not be an immediate aid for those UHF stations clinging to the last rung of the ladder before falling into the chasm of complete financial loss and defunct operation.

2. **Deintermixture,** that is, changing the allocation table. This does not appear practical for immediate aid based on the same reasons as stated above. Also, there are too many intermixed markets, and such a plan would cause tremendous confusion, resulting in many dollars being lost.

This plan can be accomplished in communities which do not yet have an existing VHF operation even though there has been VHF applications approved or permits issued; the moneys lost thereby would be small comparable to the enhancement of nationwide television operations by permitting UHF to be secured in these areas and not be faced with the above problems.

3. **All-channel receivers.** To encourage manufacturers to produce all-channel receivers, there is a proposal in Congress to remove from all channelled television receivers the excise tax presently levied on television receivers.

A form of this tax relief should be recommended to grant relief if the manufacturer undertakes to market only in the United States all-channel television receivers instead of granting an exemption for all-channel receivers only.

This form would offer more competition with VHF receiver manufacturers. However, removal of the tax is no assurance that this relief would induce manufacturers to make all-channel receivers, and even if they did, it would still take a great number of years before there would be a large circulation of such receivers. Therefore, it is of no immediate aid to the UHF stations presently suffering financial losses and on the brink of closing operations.

To overcome the dire need of programing, obtaining advertisers, and acquiring large circulation of receivers for the UHF signal, individual station owners must show a willingness and ability to underwrite extensive deficits for substantial indefinite periods of time, which is a Herculean task, evidenced by the fact that 118 UHF permits have been canceled or operations have been suspended because of such a devastating economic burden—figure 118 is taken from the Plotkin report.

There now appears an immediate solution for survival to the remaining UHF owners: This solution discussed herein below will be called the Fillips plan. The Fillips plan will overcome economic difficulties that burden the UHF station owner. The plan is as follows:

"All programing will be secured and transmitted by one station and chain broadcasted to several stations. All advertising will be solicited and broadcasted from the one station to the other stations. A converter will be manufactured at a very reasonable cost (at the present time to sell for no more than \$5.90 to \$9.95 complete, or may be given away free as an inducement to VHF set owners to receive UHF broadcasts, and can be simply self-installed by the owner) with antenna installation, if an antenna is not already installed."

This plan aptly and substantially covers the UHF specific problems discussed hereinabove; that is, programing, advertising, and receivers. The UHF stations will have an opportunity to compete on a favorable basis with the VHF stations for the sale of broadcast time.

The originator of this plan, Mr. Fillips, has the means, methods and procedures of obtaining through national theatrical agencies the necessary talent and management to produce live and interesting programs, both entertaining and educational, as well as film programs, over a sustaining period each day.

Further, Mr. Fillips, a specialist in advertising on national and regional basis, would be able, through this plan, to obtain national, regional, and local advertisers to sponsor programs or advertise on all stations who become a member of the UHF chain broadcasting system.

The various individual UHF station owners, under the Fillips plan, will be relieved of the cumbersome expense of obtaining or producing programs for their stations; they will receive profits from advertisers and be relieved of the burdensome responsibilities of competing for advertisers against popular programs which VHF stations enjoy.

Advertisers can be induced to spend millions of dollars yearly under this plan because their products will be advertised in large areas instead of in one particular locality with a limited number of receivers.

Further, with popular make converters, VHF received owners will be readily able to convert their receivers at nominal expense, and thereby increase their television entertainment.

Stations affiliated under the Fillips plan will have the assurance of a steady source of good programs which are appealing to the public, will have a better possibility for financial success by being relieved from deficit operation, and will have the assurance that their signals will be received.

The individual stations, together, will have a superior position to encourage advertisers to invest their money for advertising to the combined than to a single station.

The potentialities of television's growth are dependant on a healthy UHF system of television plan similar to the Fillips plan. Such a plan exercised throughout the country will serve the public interest by providing a large selection of entertainment to the public and will be a means of increasing the number of television stations in various communities through a reinvigoration of UHF operations by promoting individual stations and by mitigating the economic burdens and difficulties of the station.

The Fillips plan is the start in the right direction for the fastest destruction of the noose that is closing around and strangling UHF; the cycle of no programs—no listeners—no advertisers, by providing adequate programs, establishing receivers, hence listeners, obtaining advertisers.

As a good test for deintermixture, Pennsylvania would be a good State in which to start. There are 49 UHF television stations allocated to the State

of Pennsylvania, with only 8 VHF now on the air and 2 more to go but not knowing when.

These two can be stopped, therefore there is only 8 VHF to worry about against 49 UHF. By giving the VHF stations a year or two to change over to UHF this can solve some of the problems for deintermixture of UHF and VHF television stations, without going at the problem all over the country.

The FCC should consider freezing all applications and all contract permits on VHF stations until this thing is ironed out, which is a very, very important step. With a little cooperation, this thing can be worked very nicely. It is up to the people who make the rules of the FCC to put a few of these new rules in action.

I thank you.

Mr. FILLIPS. My name is Nick Phillips. I am from Pittsburgh. I am concerned with the UHF-VHF deintermixture problem.

In the State of Pennsylvania there are 49 UHF stations against 8 VHF stations. Two more V's have been allocated to Pittsburgh, but are not on the air as yet.

My study of the Pittsburgh market shows there are over a million population, with only one VHF station in the area, plus a half a station, which is on the air about 2 or 3 hours a day. One station is off the air, due to the power being off sometime ago. It operates only part time.

In the course of my study on Pennsylvania, I have talked to quite a few of the station owners. Of the 49 that are allocated to Pennsylvania, there are 7 that went off the air completely due to the fact that, like Scranton and Wilkes-Barre, there are 5 TV stations in the area, and only 3 of them are carrying network programs; the other 24 are just holding on.

The TV station in Scranton had to go off the air due to the fact that it had to make changes and tried to change around on local programming, but they are having a tough go of it.

There was the same problem in Allentown, Pa. Harrisburg is also allocated three stations in connection with the same problem. Our plan was to form a UHF network for the whole State of Pennsylvania, being that there are 4 or 5 times as many stations on U's as there are V's, and with Pennsylvania State as a testing State, we would demix the whole State of Pennsylvania and work out the details.

As far as converters, I have worked out some parts on converters, with antennas, that can be produced and delivered to the family for \$5.95 and \$9.95. This consists of also the antenna that can be attached to any roof that people already have, a VHF antenna.

I have contacted many families in the State of Pennsylvania who have spent \$200 to \$300 for their television set. When asked if they would pay \$50 to \$60 to pull another station in, they would definitely say "No, we can hardly afford to feed our families, let alone spend money to pull another station in that is only on the air part time."

I feel that if the FCC Commissioners I have talked to in person and by correspondence would take some of these steps in consideration—the public is not familiar with V's and U's. A lot of markets and a lot of homes I have talked to, Mrs. Jones said, "Are you familiar with V's and U's?" "We never heard of U's." Then they said, "What is UHF?" Then you have to explain to them.

Therefore a lot of people have not been educated to the fact that there is a difference between U's and V's.

The manufacturers of these sets that came out in Pittsburgh were bought by some people. One of our lawyers went into the store and

asked for a television set. The storeman did not tell him that he could pull a UHF station in if he bought the all-around set. He bought the VHF set, not knowing that UHF is also on the same market.

The FCC should consider freezing all applications and contracts on the VHF until this thing is ironed out, which is a very important step.

With a little cooperation on the V, the deintermixture problem could be solved in a very short time.

Most of the stations in the State of Pennsylvania will go along and will deintermix the State, if it is possible.

SENATOR PASTORE. That is a very nice statement. Thanks very much, Mr. Phillips. We are going to study your statement very carefully. I think you feel very much like the other previous witnesses.

MR. PHILLIPS. That is right.

SENATOR PASTORE. Only you are citing, of course, your particular problem in your particular area, and that is all in the record. We want to thank you, Mr. Phillips.

This meeting is recessed until 10 o'clock tomorrow morning.

(Thereupon, at 4:35 p. m., the committee recessed, to reconvene Tuesday morning, 10 a. m., February 28, 1955, in room G-16, Capitol Building.)

TELEVISION INQUIRY (UHF-VHF Allocations Problem)

TUESDAY, FEBRUARY 28, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10:05 a. m., in room G-16, United States Capitol, Senator John O. Pastore, presiding.

Present: Senators Magnuson, Pastore (presiding), Potter, and Purtell.

Also present: Commissioner John Doerfer of the Federal Communications Commission.

Senator PASTORE. This hearing will please come to order.

May I caution the people in the audience, out of courtesy and convenience to the witness, that if we must whisper, that we keep it at a very, very low tone so that all who are interested can hear the remarks of the witness.

Mr. Barnes, we are very happy to have you here. You may proceed in any fashion you like.

STATEMENT OF HON. STANLEY N. BARNES, ASSISTANT ATTORNEY GENERAL, ACCOMPANIED BY R. A. BICKS, V. H. KRAMER, AND B. HOLLANDER, ANTITRUST DIVISION, DEPARTMENT OF JUSTICE

Mr. BARNES. Thank you, Mr. Chairman.

Senator PASTORE. Have you copies of your statement?

Mr. BARNES. No; I do not. I won't be very long.

I appear here today at the request of your chairman. My plan is to touch on first a few of the antitrust problems raised by last year's Plotkin and Jones reports. While on this issue, second, to discuss a few broadcasting matters over which this Department has some responsibility.

First, the Plotkin and Jones reports: A good beginning point, I think, is Deputy Attorney General William P. Rogers' comments on these reports to your chairman by letter dated March 4, 1955.

(A copy of this letter follows:)

DEPARTMENT OF JUSTICE,
Washington, D. C., March 4, 1955.

Hon. WARREN G. MAGNUSON,
*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

DEAR SENATOR MAGNUSON: By letter to the Attorney General dated February 1, 1955, you transmitted a memorandum prepared for the Committee on Interstate and Foreign Commerce entitled "Television Network Regulation and the UHF Problem," by Harry M. Plotkin, special counsel. Your letter requested

a preliminary report containing the comments and suggestions of the Department of Justice with respect to that memorandum. Your letter of February 17, 1955, asked that comments and suggestions also be made concerning a progress report prepared for the committee entitled "Investigation of Television Networks and the UHF-VHF Problem" by Robert F. Jones, special counsel.

THE PLOTKIN MEMORANDUM

Although Mr. Plotkin's memorandum deals with both television network regulation and the problems of ultrahigh frequency transmission, we understand that the views of this Department are solicited only with respect to the network problem. Before undertaking to discuss this problem, we emphasize that we regard the questions raised by Mr. Plotkin's memorandum to be of great importance. It is essential in a free society that access to a medium of communication as influential as television be limited only by the public interest and the inherent nature of the phenomena that make broadcasting possible. It is also essential that those granted access to that medium compete without restraint, so that there will be a maximum of competition in the dissemination of ideas. Consequently, all Government agencies charged with jurisdiction in this field must be alert to any possible encroachments upon the broadcaster's ability to compete.

Mr. Plotkin's memorandum requests the Department to reply to three questions.

1. Are there any corrections or additions to make in the report? (P. 42.)

Because the report covers matters other than those of antitrust significance, we think it inappropriate to comment on matters not hereinbelow specifically covered.

2. Would more effective regulation and promotion of free competition result if the chain broadcasting regulations were abolished and networks held accountable under the antitrust laws? (Pp. 42-43.)

The Department of Justice is not sufficiently informed to express a considered opinion on the question whether the chain broadcasting regulations of the Federal Communications Commission should be abolished. We believe this question should be answered, at least in the first instance, by the Commission rather than by this Department.

Parenthetically, we observe that the concepts "regulation" and "free competition" referred to by Mr. Plotkin (p. 42) are antithetical. Our system of free competitive enterprise rests upon the proposition that competition itself provides the regulatory mechanism; that if opportunity to compete is preserved through enforcement of the antitrust laws, Government regulation will not be necessary to maintain free competition.

Maintenance of a completely competitive market requires that opportunity to enter that market be unrestricted. The telecasting business is not an industry in which unrestrained freedom to enter exists. "There is a fixed natural limitation upon the number of stations that can operate without interfering with one another" (*National Broadcasting Co. v. United States*, 319 U. S. 190, 213 (1943)). Government regulation is thus essential to limit and select the applicants for entry into the broadcasting business. Consequently, the interpretation of the antitrust laws in cases involving telecasters must take into account the fact that entry is regulated by the Government.

Section 313 of the Communications Act (47 U. S. C., sec. 313, 48 Stat. 1087) provides that all Federal antitrust laws are "applicable" to interstate telecasting. Despite these provisions, the United States Court of Appeals for the Second Circuit in *Federal Broadcasting System, Inc. v. American Broadcasting Co., Inc.* (167 F. 2d 349 (1948)) intimated that different standards of accountability under the antitrust laws apply to networks because of the chain broadcasting regulations. Perhaps as a consequence of the opinion in this case, there is an implication in Mr. Plotkin's second question that, if the chain broadcasting regulations were abolished, the networks would be subject to higher standards of accountability under the antitrust laws than is presently the case. This Department, at the request of the Federal Communications Commission, joined with plaintiff in the above case in petitioning the Supreme Court for review of the ruling on the ground that section 313 rendered the antitrust laws fully applicable to networks. Certiorari was denied (335 U. S. 821 (1948)). This action, of course, was not an indication of the Supreme Court's views on the merits of the controversy.

3. Are proceedings under the antitrust laws against any network warranted? (P. 43.)

Since the Antitrust Division is charged with enforcement of the antitrust laws, it has been on the alert for information indicating that any network is engaged in a violation of those laws.

It would be inappropriate to report upon any particular complaints, but you may be assured that we will continue to investigate any complaints submitted to the Department to determine whether or not any violation of the antitrust laws is involved.

THE JONES PROGRESS REPORT

Mr. Jones' paramount conclusion appears to be that your committee has not as yet gathered sufficient information to allow the formulation of an "any comprehensive program of reform" (p. 29). Therefore, there is no necessity to deal with a comprehensive set of suggestions, such as those made by Mr. Plotkin.

Mr. Jones and Mr. Plotkin appear to be in substantial agreement regarding the basic problems involved; namely, that a sufficient number of desirable television stations is not available to support a satisfactory nationwide television network service. Additionally, they agree that the inability of UHF stations to compete effectively with VHF stations is in large part responsible for this shortage of acceptable stations.

CONCLUSION

Because the Antitrust Division of the Department of Justice is essentially a law-enforcement rather than a regulatory or rulemaking agency, we presume that your committee does not contemplate that the Division should assume any responsibilities involving the telecasting business beyond enforcement of the antitrust laws. The Division will, of course, continue to be alert to possible antitrust violations in the broadcasting field, including those areas encompassed in the reports of Messrs. Plotkin and Jones.

Sincerely,

WILLIAM P. ROGERS,
Deputy Attorney General.

At the outset, this Department and your committee start from the same premise. As Mr. Rogers put it in his letter:

It is essential in a free society that access to a medium of communication as influential as television be limited only by the public interest and the inherent nature of the phenomena that makes broadcasting possible. It is also essential—
he continued—

that those granted access to that medium compete without restraint so that there will be a maximum of competition in the dissemination of ideas.

Consequently, all Government agencies charged with jurisdiction in this field must be alert to any possible encroachments upon the broadcaster's ability to compete.

In achieving our mutual goal, this Department's role is essentially limited. As Mr. Rogers' letter to the chairman suggested, our responsibility touches only on the limited number of television-network problems.

For the sake of emphasis, let me repeat now what was then said: UHF broadcasting, Congress beyond doubt decided, is primarily a matter for the Federal Communications Commission. The problem is basically a technical one. Here the Commission has special responsibilities and peculiar expertise.

Acknowledging this fact, Congress established this expert body and delegated broad responsibilities for regulation. Against this background, any comment by me concerning the UHF problem would have small point.

Turning then to antitrust aspects of network broadcasting, we necessarily begin with the hard fact that here nature itself exercises a primary restraint on trade. I refer, of course, to the fact that the number of television stations that can broadcast at the same time in any given area is limited by the laws of physics.

This meant the Government regulation to determine who shall have that privilege of broadcasting is extremely important.

Congress settled this question by establishing the Federal Communications Commission and authorizing it, subject to broad statutory standards, to determine who shall have the privilege of using the airways. At the same time, Congress provided in section 313 of the Communications Act of 1934, that the antitrust laws shall apply to the broadcasting industry.

Despite the plain language of that section of the act, making the antitrust laws applicable to broadcasting, the courts in determining the reach of the antitrust law to network broadcasting have not ignored the fact that the Federal Communications Commission exercises regulatory power in the field. I refer at this point, of course, to *Federal Broadcasting System v. American Broadcasting Company* (167 F. (2d) 349), decided in 1948.

To an extent thus far not precisely delineated, this regulation serves to deflect the full impact of antitrust law strictures. In light of the limited role accorded antitrust, the chain-broadcasting regulations adopted by the Commission in 1941 and subsequently made applicable to telecasting, take on added importance.

Since the Supreme Court in the *National Broadcasting* case (319 U. S. 190) has sanctioned this Commission power, the Federal Communications Commission now reexamines its regulations with a view to determining whether or not they should be modified, enlarged, in order to more effectively promote the public interest in telecasting.

Obviously, until we have the report of the Federal Communications Commission on this subject, further comment by any representative of the Department of Justice would be inappropriate.

I wish to assure you, however, that the Antitrust Division has informed the Commission of its readiness to consult with and advise the Commission regarding antitrust aspects of network regulation. Last spring Chairman McConnaughey of the FCC and I informally discussed the problem of dividing responsibility between us as to the difficult problems raised in the committee reports.

At that time I took the position that problems of network affiliation were by and large better handled by the FCC regulations than by antitrust prosecution. However, I assured Mr. McConnaughey that, were the FCC to undertake the adoption of new rules, the Antitrust Division would stand ready to consult with the Commission as to any antitrust aspects involved.

So much for the Plotkin and Jones reports, as well as FCC projected rule revisions.

Beyond these, I think I should emphasize that the Department of Justice is fully cognizant of the fact that, irrespective of FCC regulation, there remains a substantial area in the broadcasting field where the Department of Justice has a primary responsibility to enforce the Sherman and Clayton Acts.

This responsibility we have endeavored to exercise within the limits of our professional abilities and the financial resources available to the Antitrust Division of the Department of Justice.

For example, we found it necessary to prosecute two newspapers for attempting to monopolize dissemination of news and advertising in their respective areas. In this *Lorraine Journal* case we obtained an injunction, affirmed by the Supreme Court, preventing the publisher

of that newspaper from attempting to drive a competing radio station off the air by denying newspaper ad space to advertisers that also frequented the rival radio station.

Within this past year a jury returned a verdict of guilty against the Kansas City Star Co. for attempting to monopolize news and advertising in the Kansas City area. The indictment charged that the company refused to give time to advertisers on its television station unless the advertiser was a constant user of the Star's newspaper advertising columns. That criminal case is pending on appeal. A civil case along the same lines is pending in the lower court until the higher court accepts or rejects the jury's verdict in the criminal conviction.

We have also proceeded against RCA in a very important civil case, charging it has monopolized patent licensing with consequent restraints on manufacture in the radio-television industry. This case is also pending.

In addition, we realize, as the Plotkin report emphasized, that one of the chief factors inhibiting the successful operation of new stations is the paucity of good programing material. Restraints on programing material were the subject of our suit in the National Football League and International Boxing Club cases. In the football case, the courts struck down a number of restrictions—that was tried in Philadelphia before Judge Grim—which the league had placed upon the broadcasting and telecasting of professional football games. And in the boxing case, still awaiting trial, which was dismissed in the lower court, and where it was necessary for us to take appeal to the Supreme Court to get it reinstated in the lower court, we attacked alleged restraints affecting the sale of broadcasting and telecasting rights of championship professional boxing matches.

Finally, only last month, after a rather careful investigation, a Federal grand jury indicted the International Boxing Guild and two of its principal officials and the local guild working under the International Boxing Guild in Ohio for engaging in a boycott of boxing exhibitions staged in, and televised directly from, broadcasting studios without an audience.

The CHAIRMAN. Judge, how does that work, actually—what are the facts involved? Do they say to certain stations “you can take this” or “you can't take it,” or just how? I think we would be interested to know how they do operate.

Mr. BARNES. In that particular case, there was picketing of stations involved. The promoters of the boxing bouts want to get not only the revenue, very naturally, that comes from the paid admissions at the scene of the bout, but likewise they of course are interested in what has become increasingly important in the boxing industry, and that is the receipts from television.

Because there is such a lack of good programing material, particularly with regard to athletic events, this particular group desired to merely have their boxing matches televised, without any paid admission. They didn't have the facilities to have the paid admission. The International Boxing Guild, consisting primarily of managers, put up a picket line around the television studio to prevent their having that type of television existing.

The CHAIRMAN. Isn't that Boxing Managers Guild the group that have now been barred in New York State by the New York State Commission?

Mr. BARNES. Yes; that is correct. There have been many developments.

The CHAIRMAN. I have been reading a little about it.

Mr. BARNES. This is but one aspect of it. We have likewise some investigations going on in the wrestling aspect with relation, incidentally, to television.

Senator PASTORE. How does the antitrust phase of it enter into that situation?

Mr. BARNES. Through restraint of trade, boycott.

Senator PASTORE. Boycotting whom?

Mr. BARNES. The studio—they tried to prevent people from going to work in the studio.

Senator PASTORE. What has that to do with the viewing public having the availability of the program?

Mr. BARNES. Because if they wouldn't permit the boxers to go in, there could be no program. The public are deprived of any boxing program.

The CHAIRMAN. In other words, in this case, as I understand it, there was no audience. It was merely to get on television.

Mr. BARNES. Right, and the International Boxing Guild, in its wisdom, decided that wasn't the way they wanted to run boxing. So they took steps to try to prevent it.

The CHAIRMAN. What about wrestling?

Mr. BARNES. As I have said before, Senator—

The CHAIRMAN. Is that classified as a sport by the Supreme Court? [Laughter.]

Mr. BARNES. What I was going to say was, sometimes speaking on the subject of antitrust, I point out how it affects everyone in many phases of living. First we filed suit against the Shubert people—which was recently settled—and sought to open to competition true dramatic productions. Second, we have sought to promote competition in professional sports, for example in the International Boxing Club case. Sometimes we have a combination of two—theater and sport—in the wrestling investigation. That is in the investigatory phase at this time. I am not at liberty to go very much into detail, because there has been no grand jury or civil action trial.

The CHAIRMAN. But as I understand it, what you are looking into is the danger that wrestling could be an absolute monopoly insofar as bookings, and where matches take place, are concerned.

Mr. BARNES. Blacklisting. In fact there are all kinds of activities of that kind.

The CHAIRMAN. Blacklisting and all that goes with that. That I understand is what you are looking into. We don't expect you to testify as to what you have found.

Mr. BARNES. We are looking into various phases of the wrestling industry.

Senator PASTORE. There was a motive, Mr. Barnes, in my asking you the question I did ask you. Why, then, wouldn't the closed circuit be a modification, or a modified form of restraint of trade?

Mr. BARNES. That depends upon contract. I take it your closed circuit is a private matter, of private contract between parties, and does not purport to go to the public. It doesn't fall within the public regulation aspect of television.

Senator PASTORE. But don't you state in the first case that the public interest requires that there be no restraint as to the availability of certain programs to the public? You answered me by saying, "Yes, because if you don't do that, then you won't have a program."

Mr. BARNES. That is right.

Senator PASTORE. Insofar as the public is blocked from seeing this program that is on a closed circuit, why aren't they being improperly blocked from seeing the program?

Mr. BARNES. If you got into a situation where one organization, or one individual, monopolized the situation as far as any particular exhibition was concerned, by closed circuit or otherwise, then you might get into an antitrust violation.

Senator PASTORE. Don't they do that on the championship boxing fights?

Mr. BARNES. Yes.

Senator PASTORE. Doesn't one group come in and monopolize this whole thing?

Mr. BARNES. That is exactly why we have filed suit against them.

Senator PASTORE. You have filed a suit?

Mr. BARNES. We have filed a suit. Of course, we ran into the difficulty that was created by the baseball case, where the Supreme Court held that baseball was a sport and not a business, and hence cannot be a matter subject to interstate commerce.

The CHAIRMAN. You don't expect that trouble in wrestling, though, do you?

Mr. BARNES. No, I don't expect that trouble in wrestling, particularly because, as a result of that baseball case decision, a judge in New York—and a very fine judge—said, "Well, let's see if the Supreme Court means what it says." So he dismissed the International Boxing case, and later another judge in the same court dismissed the Shubert case. He said if this rule that baseball is not a business is really a good rule, let's apply it to boxing and to theatricals.

Both of those cases went to the Supreme Court, and there we successfully maintained our position that there was no exemption as far as boxing or as far as theatrical productions were concerned.

So baseball is sui generis. It is all by itself. I think that is probably where the exemption will stay.

Of course, the Supreme Court says that the reason it decided that way is because Congress didn't take any action, after its original decision for a period of 20 years, to change the rules. Therefore, it wouldn't be fair to now come along and say that, having once ruled that baseball was a sport, we will now rule it is a business.

I might say I think that anyone who has studied the matter will say that there are some inconsistencies in the general problem.

The CHAIRMAN. Of course, Judge, we did in this committee, on the baseball situation, hold some hearings, such as they were, when Senator Johnson was the chairman—

Mr. BARNES. Yes; I recall those.

The CHAIRMAN (continuing). Regarding the matter. But as you say, we didn't take any action. That was because the minor leagues were just disappearing, and are disappearing, because of this whole tangled up situation.

Mr. BARNES. It is a difficult problem.

The CHAIRMAN. Senator Johnson had a very personal interest in the matter.

MR. BARNES. That is right. I have talked to him many an hour on it. It is a very serious problem, as is exemplified, I think, by the decision of Judge Grim in the football case, where we adopted a rule of reason as far as broadcasting professional football games is concerned, and said it was a restraint of trade if there was a restriction on the broadcasting in areas where the team was not playing but that it was perfectly proper to restrict it in the home area where the team was playing, because if they didn't so restrict it, there would be an effect upon the gate receipts. And hence, using the rule of reason, he said it was all right to restrict it in a limited area, but when you got beyond that, it wasn't a proper restriction; and likewise, that the restrictions could not apply to broadcasting as distinguished from telecasting, because the broadcasting of football games even in the home area did not have an effect upon the gate.

Beyond cases already filed, several investigations are now pending in the broadcasting field. Because they are pending, I am sure you understand I cannot name names or go into too much detail. I can, however, outline broadly the scope of some of our pending investigations.

First, we are currently studying the antitrust questions raised by the exchange between the National Broadcasting Co. and the Westinghouse Broadcasting Co. of radio and television stations in the Cleveland and Philadelphia areas.

Second, we have under study complaints that the networks insist on some occasions that sponsors use programs owned or controlled by the networks. The charge has been made that this is particularly the case in connection with prime time—that is, between 7:30 and 10:30 in the evening. You will recall that the Supreme Court, in the Paramount case, required the control over the exhibition of motion pictures be divorced from their production and distribution. We believe that if a similar situation is to be avoided in the telecasting industry, the networks must not condition access to the airways on use by the advertiser of a network-owned program—providing, of course, that the sponsor has a program which meets reasonable standards of merit in the public interest.

Just as a patentee may not extend the exclusive privilege granted to him by Congress so as to control competition beyond the scope of the patented invention, so telecasters, I think, should be careful to avoid seeking to use their broadcasting privilege to control commerce in an area beyond the scope of their license.

The Paramount case also condemned block booking of motion pictures, the practice whereby an exhibitor desiring to rent only the good pictures was nevertheless compelled to take the bad as well. The Antitrust Division has under current inquiry charges that feature films are being licensed to television stations under similar requirements.

Motion-picture programing is, as you know, especially important to unaffiliated television stations to enable them to meet the competition of network programs. The Antitrust Division thinks it has been, and proposes to be, alert to prevent a recurrence in the broadcasting branch of the entertainment industry of those practices which gave rise in the motion-picture industry to the Paramount case.

I am sure that the broadcasting industry itself will join with us in our efforts to prevent repetition in their industry of the litigation, in some respects almost ruinous, that has faced the motion-picture industry.

Senator PASTORE. What is the distinction that is to be made between the Paramount case, where the producers of moving pictures were not allowed to maintain their own exhibition houses, and a network that owns and operates a station in the locality?

Mr. BARNES. If we assume that there have been the same acts in the telecasting industry that existed in the motion-picture industry, and we assume that the court is going to determine what the remedy should be, then there should be no distinction. There could be the same results, assuming the same violations. In other words, we get into what the court can do to prevent the recurrence of the abuse.

Senator PASTORE. Is that matter now under study by your Department?

Mr. BARNES. We have, as I stated, what we call a preliminary inquiry into the matter. We have had complaints, and they have caused us to take that much of a step. I hesitate a little bit, because sometimes undue emphasis is given by the press and otherwise to words that to us are words of art.

We have, for example, some 307 investigations pending in the Department in the Antitrust Division at this time. Very obviously not all of those will lead to the litigation. So I don't want to infer that simply because we have started an investigation that necessarily means there will be litigation.

Senator PASTORE. It is for that reason I shall not press it any further.

Senator POTTER. Judge Barnes, I am sorry I was not here for most of your statement. Maybe you covered it in your statement. The committee was confronted with the situation a couple of years ago—and also last year—in meeting with television manufacturers in an effort to encourage them to manufacture all-channel sets. Some of the manufacturers were fearful of making any type of commitment for fear that they would be in violation of the Antitrust Act.

Would you care to comment on that?

Mr. BARNES. I recall, Senator Potter, that we conferred with you in the middle of 1954 regarding that question. After careful consideration, we declined to give the requested clearance to commit ourselves to nonprosecution in the event such a plan were worked out, because we believed that it might constitute a possible violation of the Sherman Act.

We felt it was for Congress—not the Attorney General—to amend the antitrust laws to permit such agreement between manufacturers. Further, we felt that the agreement might have had the effect of driving out of business small television manufacturers who would be unable to afford the production of all-wave receivers.

Since the proposed agreement would, in the opinion of the Antitrust Division, have constituted a violation of the Sherman Act, I felt we could not approach it, and I believe we so notified you. Even if we had cleared the agreement, of course, our agreement would not have protected the manufacturers from any possible third-party liti-

gation—treble damage suits against them. I think that, of course, was the most deterring fact upon such possible joining together.

The CHAIRMAN. I think in that case we would have to take the initiative and act, because that precedent down there with you fellows—although all equities might be on the side of doing it—would be a very dangerous one.

Mr. BARNES. That is right. Furthermore, it is purely an advance statement of what the Department of Justice will probably think of a situation in the future. It might very well change with any subsequent Attorney General who has charge of the Department of Justice, and will in no event be binding upon any future holder of the office.

The CHAIRMAN. Might I ask this question, if it is proper, because we do have many pressing problems here in the industry, and the Department of Justice may have a part in helping in the solution of them. On this boxing and wrestling and other sport cases, do you think you could complete what you are doing in a very short time, or is it going to be dragged out a little bit?

Mr. BARNES. I cannot prognosticate, Senator; that is one thing I have learned. Even if I think it is going to be filed tomorrow, I never say so, because there are too many reasons why those things do not happen.

The CHAIRMAN. I understand that.

Mr. BARNES. You say "finished." Of course we started this International Boxing case several years ago, in 1952. We have two matters that have delayed it considerably. One is the fact that we had to go to the Supreme Court to establish the Sherman Act's application to aspects of professional boxing. The second one is that unfortunately we have to file our cases where the acts take place and where the defendants have their place of business.

In championship boxing contests—that means New York—and the southern district of New York, of course, had one of the worst calendar congestions of any Federal district of any place in the country.

I guess I had better be careful about that, for they have been speeding things up so much in the last few months that the situation may have changed somewhat.

But there has been delay there just because of the condition of the calendar. Our case is ready to go to trial up there. We still don't know when it will be tried.

The CHAIRMAN. The reason I asked that is because this committee has been asked on many occasions, by many of the fine sports writers in the country, why we would not go into this matter of boxing and wrestling. I think the majority opinion of the committee was that properly it was a matter that you folks could take hold of easier than by our getting into this problem of programing, because there are some other basic things that we are more concerned with.

We are concerned with that, too, because I have had many, many communications from people who are interested in clean sports along the lines of "Well, the home is open to television and the young boy goes to high school and his high-school coach tells him that you fight fair and sports are clean." Then he comes home and looks at some of these things on television, and looks at his father and probably says "What is this fellow telling me up there at high school?"

It has a serious impact, I think, upon good clean sports in the country.

Mr. BARNES. As a one-time football coach, I agree with you.

The CHAIRMAN. Me, too. Wrestling, of course, I don't know what you do about that.

Mr. BARNES. I think it has to be recognized for what it is—entertainment, not sport.

The CHAIRMAN. I am not against it, but I think something should be done to let everybody know, particularly youngsters, that this is not what it looks like. Maybe the Federal Trade Commission ought to get into that and label it.

Mr. BARNES. Wrestling is a very difficult subject, Senator, because of the fact that in boxing a fighter may have a fight every 3 months, or every 2 weeks at the most. You get into wrestling, and they are working every night in a different part of the country. Most of them are not televised.

We get our foot in the door on most of these things on the television angle, the broadcasting angle, and the interstate commerce that arises. We still can only deal with violations of matters in interstate commerce. So your local wrestling show presents problems to us from an enforcement standpoint.

Again, Senator, may I just say one other thing. It isn't only an antitrust question. Some of our investigation into wrestling, and to a limited extent boxing, indicates that the Criminal Division of the Department of Justice, in its Antiracketeering Division, must have a look at its antitrust features.

The CHAIRMAN. I am sure that none of us have any objection to people who want to go watch these wrestling matches, but when they start to come into the home, I think then they ought to be—the best word I can think of is “labeled,” for what they are in some way. I don't know how we can do that. Maybe we ought to inquire of the Federal Trade Commission that handles labeling and advertising.

Senator POTTER, as I recall last fall you attended the boxing convention, or whatever they had in Detroit, in which they evidenced some desire to see if they couldn't voluntarily do some of the things that have been suggested by the judge. Is that correct?

Senator POTTER. Yes. I would like to have the judge comment on that, if you would.

Mr. BARNES. I don't know enough to comment upon all the matters that are taking place in boxing particularly, but I can say that I think all of us realize that there has been a vast change in the boxing picture, particularly with regard to the control of the managers over the opportunities to appear in boxing matches within the last several months. In fact, very recent time.

Senator POTTER. Part of that time, unless they had the good word from a man in New York, they didn't box.

Mr. BARNES. There is no question about that, apparently, at least from the testimony of 1 individual who changed his manager and was out for some 3 years, I believe it was—2 years any way—one of the most likely prospects, I understand. He couldn't get a boxing match because he didn't have the right manager. I think there is a great deal that can be done within the industry on a voluntary basis. But there again we get into some of the uglier aspects of it, because there have been strong-arm methods.

In fact, some of my staff accuse me of spending too much time with some of the gentlemen who come in with cauliflower ears and have a tale to tell. But sometimes they don't tell it so well, but if you stay with it, you can get very interesting facts.

We have a lot of individuals who, as soon as they know we are interested, come in and tell us their personal experiences, and a lot of editors—sports editors of different newspapers—who are vitally concerned.

Senator POTTER. The Department of Justice is surveying that industry at the present time?

Mr. BARNES. We have no wholesale boxing investigation. I don't want to mislead you. In connection with our suit on championship professional fights, we have spilled over a lot of other areas, and we are gathering as much as we can and working in cooperation with other agencies and other divisions of the Department of Justice in gathering as much information as we can.

Senator POTTER. But it is your opinion that the industry is cleaning its own house to a certain degree?

Mr. BARNES. I think it is doing a great deal. As to whether or not it can ultimately clean its own house, that is a serious question. As long as some of this force exists, as long as managers get beaten up if they don't knuckle under to the demands, there is actually physical fear existing in the industry. Until that is eliminated, until the right-minded managers, those interested in the sport, believe that they have a chance at coming out on top, we are not going to get the whole story.

Senator POTTER. Unless that industry is cleaned up, the American people are going to lose, completely, respect for boxing, and it will be relegated to the same level as wrestling, unless some action is taken to clean up the sport.

Mr. BARNES. There is no question about that.

The CHAIRMAN. Judge, the point I wanted to make is that I am glad that you have this under active consideration. There have been many requests that we here go into some of these matters, and I think the committee feels we have many other things in this industry that are probably much more important, and that properly you people could put some checks down there on this thing.

Mr. BARNES. I think that is our duty, and we are trying to do it.

Senator PASTORE. Senator Purtell?

Senator PURTELL. No questions.

Senator PASTORE. Our counsel, I understand, has some questions.

Mr. COX. Mr. Barnes, would it be basically the position of the Department of Justice that it has the same fundamental duty to enforce the antitrust laws in the field of radio and television broadcasting as in other industries?

Mr. BARNES. Yes; taking into consideration the fact that all the regulated industries may have different statutory boundaries as to what is regulated. We get into this question of primary jurisdiction, which is a very difficult one. But in general, depending on the law that sets up the regulation, we do within limits have the general obligation to consider and control as best we can the antitrust aspects, even in the regulated industries.

Mr. COX. Isn't it true that in the Communications Act, in section 313, which you cited, there is an express statement of congressional

policy that the antitrust laws are to apply in this field, despite the regulation authorized to be exercised by the FCC?

Mr. BARNES. That is correct. I think we have by congressional enactment a stronger or greater responsibility in this field than in some other regulated industries.

Mr. Cox. Wouldn't you say that that is perhaps because of this situation: That despite the fact, as you pointed out, that nature has created a primary limitation upon the ordinary forces of free competition, on the other hand, because this is in the realm of expression, Congress has expressly stated a policy that restraints will not go to the extent of censorship, and as a result you don't have this treated like a regulated utility in the sense, perhaps, that railroads or common carriers regulated by the ICC are handled. But in the television field, since there is an initial restraint, would you say that perhaps special care and vigilance is required in the enforcement of the anti-trust laws there to prevent the creation of a monopoly?

Mr. BARNES. I would agree with that 100 percent.

Mr. Cox. You mentioned the Federal Broadcasting Co. case, and it is referred to in Mr. Rogers' letter, as perhaps raising some problems, despite the language of section 313. Would the Department be of the opinion that perhaps some clarifying legislation is required to avoid the difficulties posed by that case, and to straighten out this question of primary and secondary jurisdiction?

Mr. BARNES. I would hesitate to give an opinion on that offhand. That case, of course, did not get to the Supreme Court. It might be that it would be better to have the Supreme Court pass on the question before you considered the necessity of legislation. However, I don't know enough about it to comment on that.

Mr. Cox. Since it has never been finally approved by the Supreme Court, then is the department taking the position that, despite the decision in that case, it continues to have authority to act in the broadcasting field, even though it is in an area that is entirely under regulation of the FCC as far as certain aspects are concerned? In other words, you are still trying to get a case to the Supreme Court on that issue, if one arises?

Mr. BARNES. Yes; if one arises, we think it should go to the Supreme Court before we feel we are barred by the exact language of the lower court.

Mr. Cox. As I understand it, in your testimony before a subcommittee of the House Judiciary Committee yesterday, you indicated, in connection with this matter of the exchange between Westinghouse and NBC, that one of the problems which had to be decided by the Department before going ahead was whether it was debarred from bringing an action by the approval granted to this transaction by the Federal Communications Commission.

Mr. BARNES. If we assume that the restrictive provision of the Communications Act applies only to the common carriers, then probably there is no problem about the finality of the act of the Federal Communications Commission. Under those circumstances, we feel we would be free to proceed.

Mr. Cox. But that is a question that is still, I take it—

Mr. BARNES. We think that we have the answer, but sometimes we are wrong, you know. We don't want to be too positive and say this

ends all our problems. I think we will have to have a fight to establish that.

Mr. COX. Suppose the Department of Justice were of the opinion that a particular practice in the broadcasting industry—in the network field, let us say—was violative of the antitrust law. Would it institute an action to enforce the law, even though this practice had been explicitly approved by the Commission?

Mr. BARNES. I don't think I can answer that question directly. I don't think I could answer it in advance.

Mr. COX. It would have to depend on the facts of the specific case?

Mr. BARNES. The circumstances and facts, yes.

Mr. COX. In other words, you feel that there may be a possibility, under the present status of the statutory law, that the Federal Communications Commission, in a non-common-carrier field, could put its stamp of approval on a practice which the Department of Justice felt violated the antitrust laws?

Mr. BARNES. Yes. We do not concede that we would be helpless, and it would depend, I think, upon the nature of the stamp of approval that the Commission put upon the particular acts, as well as the particular acts which were approved.

Senator PASTORE. Let's get that straight. Would this act be a violation of the antitrust laws that would be condoned because the stamp of approval was put on by a regulatory body? Or would it mean that it does not violate the antitrust law because it is a regulated matter?

Mr. BARNES. If it is a regulated matter and is taken, by the act, out of our jurisdiction, something that we do not have jurisdiction on, then obviously we can't proceed.

Senator PASTORE. Who decides that?

Mr. BARNES. We are going to have to make the initial decision, whether we want to contest it. That is why I say we have to look at the facts, we have to look at the order and what it purports to cover, and the area in which it is.

Mr. COX. But under the express language of section 313, wouldn't it be your feeling that, except possibly for provisions relating to common carriers, that very clearly Congress intended that the fact of—

Mr. BARNES. Concurrent jurisdiction, that is right.

Mr. COX. The Commission regulation should not bar you?

Mr. BARNES. That is our attitude, that is right.

Mr. COX. Does the Commission take the same position with regard, not to a continuing practice, but with regard to the grant of a license or of a permit by the Commission which the Department might, in a particular case, feel will result in a restraint of trade?

Mr. BARNES. I cannot answer that. As I have said in my statement, we tried to get together to work in cooperation, and we have had very little opportunity to have any disagreements.

Mr. COX. Mr. Henley of the Office of the Chief Counsel of the Commission testified briefly last week about liaison which they maintained with the Antitrust Division. Could you tell us what the nature of that liaison practice is?

Mr. BARNES. Yes. The liaison with the Federal Communications Commission is on an informal basis whereby the Commission makes

available to the Antitrust Division, upon request, any information in its possession which relates to Federal antitrust questions. Conversely, we agree to make available to the Commission all information which might help the Commission in its regulatory functions.

I have conferred with Mr. Connaughey and with several representatives of the Commission in my office. We have discussed some of our mutual problems—the division of responsibility that is set forth in the letter that Mr. Rogers sent to this committee.

In addition, I informed the Chairman of the Commission that we stood ready, on short notice, with individuals whom we thought were somewhat, at least, qualified to exercise discretion and judgment in the matter, to review any network regulations that the Commission proposed to issue, to advise and consult with them in drafting any such rules on any of the antitrust questions involved.

At one of these meetings we suggested that there be specific individuals designated, 1 on behalf of the Commission, 1 on behalf of the Antitrust Division of the Department of Justice, to stay in contact with each other so that this could be a vital arrangement rather than just a paper one.

I designated Mr. Hollander, who is here with me today, as the individual to represent the Antitrust Division, Department of Justice, in these communications with the Federal Communications Commission. The Federal Communications Commission designated Mr. J. Smith Henley, Assistant General Counsel, on their behalf, and those 2 gentlemen have been in contact when any matters have arisen, and I think that our informal contact has worked out pretty well.

Mr. Cox. Is this a matter of recurring scheduled conferences, or do I get the impression that it is handled on a case-by-case basis when one agency or the other feels that there is occasion for getting together?

Mr. BARNES. It is a case-by-case arrangement, with the caveat that I just put in there, that we have certain understandings that we are interested in these rules and regulations, and that they are interested in getting our opinion, and when that situation develops that they want our opinion or advice, that we will be consulted with regard to it.

Mr. Cox. In your opinion, has this liaison, for instance, worked effectively in connection with the matter of the NBC-Westinghouse exchange?

Mr. BARNES. That is a very difficult question. You are getting into a very involved state of facts.

Mr. Cox. I just wanted your thought.

Mr. BARNES. I would say on the whole I think it has worked pretty well; yes.

Mr. Cox. Is it your policy, where you are investigating a matter which you know is before the Commission for action, to request the Commission to defer action until you can complete your investigation?

Mr. BARNES. It is not. It is not, because of our concurrent primary jurisdiction on matters of that kind. If we think we have sufficient information to exercise our jurisdiction, we should do it. If we do not have, we are in no position to ask the Commission to delay any action on their part.

Mr. Cox. Would you notify the Commission that you were investigating the matter and advise them of the facts which gave rise in your mind to some question as to whether there was an antitrust issue?

Mr. BARNES. We would advise them if it came to our attention that there was any possibility of any action being taken by them which might have any effect upon the ultimate outcome of the matter which we then had under investigation.

Mr. COX. In other words, if there were a case in which you thought that their action might conceivably preclude your subsequent treatment of the case, you would advise them of this fact?

Mr. BARNES. Not necessarily preclude any action on our part, but necessarily have any effect, psychologically or otherwise, upon our action. We would just simply call the matter of our interest to their attention, without any expression of desire on our part that they take one action or another.

Mr. COX. Is this something you have done a number of times during this period of liaison with the Commission?

Mr. BARNES. It has been done, but it has not been done a number of times. We have only had this procedure in operation since last year. As a matter of fact, it was only formalized along in August or September of last year. We had negotiations and conferences prior to that time, but we settled down into a routine that we thought was satisfactory to us as of that date.

Mr. COX. Is this liaison comparable with that which you maintain with other regulatory agencies?

Mr. BARNES. Somewhat. Of course we have a very similar liaison with the Federal Trade Commission, but of course our liaison there is on a daily, or a half-daily, basis rather than the larger interval that exists in our relations with the Federal Communications Commission.

Mr. COX. Didn't you recently state in testimony before a House committee that it would be helpful if the various regulatory agencies would advise the Department of their consideration of matters in which possibly antitrust matters were presented?

Mr. BARNES. I do not recall that specific testimony, but I have no doubt that I might very well have said it because I think that the more information we have, the better job we can do.

Where we have a joint, or even a secondary, responsibility—concurrent or secondary responsibility—very obviously we are interested in what the other regulatory bodies do.

Mr. COX. I think this was again before the House Judiciary Subcommittee sometime late last month. You were testifying, possibly on legislation requiring advance notice of mergers, and you made reference to the fact that it would also be of assistance if the regulatory agencies advised you in advance of these matters.

Mr. BARNES. I have no doubt that is precisely what I said.

Mr. COX. Do you think that legislation could be adopted in this field which would be helpful to the Department in that connection?

Mr. BARNES. That is a question that I do not think I am competent to pass upon. I think we can sometimes have too many regulations. I am much more interested in some of the others we are trying to get on mergers than I am in something like this by statute.

The CHAIRMAN. And that depends upon the people running the departments. You can maintain a good liaison with people if they are anxious to maintain that.

Mr. BARNES. There is no question about it. If you get men of good will, they can do a lot more sometimes without the law than they can with it.

We have been, I think, very successful in maintaining that cooperation between various governmental agencies, including some where there has not been that cooperation in the past.

Mr. Cox. Mr. Plotkin in his report, which was submitted to the Department, recommended that you be asked whether a more effective promotion of free competition would result if the chain broadcasting regulations of the Federal Communications Commission were abolished and the networks simply held accountable under the antitrust laws.

Mr. Rogers replied that the Department was, as of March last year, not sufficiently informed to express a considered opinion on this question, and that it should be answered in the first instance by the Commission. Could you tell the committee whether the Department has, since that time, acquired additional information which would enable it to express an opinion?

Mr. BARNES. No, sir; that is still our position. We would like to see what the regulations are, what the Commission comes up with.

Mr. Cox. You are talking about prospective regulations and not about those which have been in effect since 1941?

Mr. BARNES. Yes, that is right.

Senator POTTER. Mr. Cox, along that line, I am wondering, Mr. Barnes, if the Department of Justice, or particularly your division, has reported on a bill that is before the committee at the present time, introduced by Senator Bricker, which would regulate the networks? That is S. 825.

Mr. BARNES. I believe that that is a bill in which we made a comment similar to that made in the letter of Mr. Rogers' that has just been referred to.

Senator POTTER. In other words, there has been no position taken by the Department of Justice on the bill at this time?

Mr. BARNES. That is right. That is my recollection. I do not have our records here on that, but I am pretty certain. One of my associates here gave me some of the facts and says that that is his recollection, so I am sure that is correct.

Senator POTTER. There has been concern by some people, with the great effect that television has on mass public opinion, that the concentration of power into 2 main networks—or 3 networks—is a large concentration of power in the hands of a few people. Has the Antitrust Division made any investigation on that concentration of power?

Mr. BARNES. Not in this particular field, but from a general standpoint, very obviously, we believe that free enterprise and lack of monopoly—the greater the concentration toward the single monopolies, theoretically the worse the situation is.

Ordinarily, all things being equal, we would rather see 3 competitors than 2 or 1; or 6 rather than 3. Theoretically the public is going to be the gainer if that situation exists.

Senator POTTER. It has been suggested that the networks be treated in the same manner as the Associated Press at one time—forcing them to make their programs available to any person that wanted them. Would you care to comment on that?

Mr. BARNES. No, I do not think I should because one came as a result of antitrust litigation. We do not have that as yet in this industry.

Sometimes under the theory that individuals who have violated the antitrust laws should be put in a position a little different than those who have not violated the antitrust laws, we might recommend one thing in one case where we would not recommend it to an industry where there has been no violation established as a matter of law.

I think that is better left unsaid at this time.

Mr. Cox. As I understand it, you have an arrangement, then, with the Commission that, with regard to any future revision of their chain broadcasting regulations, you are to be consulted. Have you, however—

Mr. BARNES. Just a minute. I do not think we have any definite promise. We understand that they propose to consult us, and we have expressed our willingness to be consulted and to cooperate with them to the fullest extent.

Mr. Cox. Have they to this date asked you to comment on their present regulations and give your opinion as to how they affect the Department's enforcement of the antitrust laws?

Mr. BARNES. They have not.

Mr. Cox. Mr. Rogers, in citing the Federal Broadcasting System case in his letter, intimated that, despite section 313, different standards of accountability apparently might be held to apply to the networks because of these chain broadcasting regulations. If in fact, then, these regulations are regarded as putting the Commission's stamp of approval on certain practices that are authorized there, and if in consultation with the Commission you decided that this was an obstacle to the enforcement of the antitrust laws, would the Department then recommend to the Commission that they be set aside or ask corrective legislation from the Congress?

Mr. BARNES. Of course it depends upon how large the area of difference is, how substantial, and how fundamental. If we attempt to negotiate our ideas into the regulations, or at least have careful consideration given to them, and if we at the conclusion thought there was an utter absence of antitrust considerations in these regulations, we would have no hesitancy in either going to Congress or instituting such action as we thought necessary to try to establish a free enterprise.

Mr. Cox. Mr. Henley, again, in his testimony last week suggested, I think, at one point that in the opinion of the Office of the Chief Counsel of the Commission, the Communications Act in setting up the standards of public convenience and interest went further than the antitrust laws in guarding against monopoly. Would you care to comment on that?

Mr. BARNES. I am afraid I could not agree with that because public interest—as I understand the various matters that are contained within that definition of what constitutes public interest—goes far beyond the antitrust laws. Antitrust law enforcement is part of the public interest, but your public interest goes to a larger area. I think I made some remarks on that yesterday.

I pointed out yesterday, in testifying before a House committee, that in construing the Federal Communications Act, the Supreme Court in *Federal Communications Commission v. RCA Communications*, which had to do with the establishment of overseas radio-

telegraph service, discussed the Commission's finding that competition is—

that is, duplication of radio telegraph facilities would not impair the ability of existing radio carriers and cable carriers to render adequate service. For such reasons the Commission concludes that competition was reasonably feasible.

The courts felt it was improper for the Commission to suppose the standard as adopted was derived without a national policy defined by legislation in the courts. They said:

The trouble arises from the fact that, while the Commission recites that competition may have beneficial effects, it does so in an abstract, sterile way.

If the courts adopt that attitude, they pay practically no attention to the antitrust implications. And we were not happy with that type of decision because we do not think it gives the emphasis to antitrust.

That is part, and only a part, of the public interest that must be preserved.

Mr. COX. But in your view it is, in its area, a more specific and a stronger statement than the general standard of the public interest?

Mr. BARNES. Yes; because by public interest there are 10 or a dozen other factors that may weigh against antitrust implications. Hence, antitrust law is stronger in preserving free enterprise than the larger public interest, which includes antitrust considerations.

Mr. COX. You commented briefly on the block booking aspects of the Paramount case and their possible implications for the licensing of feature films over television. Mr. Plotkin, in his discussion of the employment of option time by the networks, suggests that possibly the entire practice, not limited to films, has many of the features of block booking as condemned in the Paramount case. I think this is one phase of his report that Mr. Rogers did not comment on in his letter of last March. Is the Department familiar with option time as it is used in the broadcasting field?

Mr. BARNES. In a general way; yes. I am not prepared to state at this time that a contract giving networks option for a station's time is, standing alone by itself, a violation of section 1 of the Sherman Act. That is our considered opinion at this time. We have not dismissed the problem, but we cannot say that, per se, in and of itself it violates the antitrust law.

The CHAIRMAN. I think maybe right here we had better give the reporter a rest, do you not think, of 10 minutes?

Senator PASTORE. All right, if it is agreeable with the rest of the committee. Let us have a 5-minute recess.

The CHAIRMAN. All right.

(A short recess was taken.)

Senator PASTORE. Mr. COX?

Mr. COX. I gather, then, at this stage, Mr. Barnes, the Department is not engaged in a broad investigation of the overall operations of option time in television?

Mr. BARNES. That is correct.

Mr. COX. Has the Department analyzed Mr. Plotkin's description of the practice, and inquired of the FCC as to whether, so far as it knows, the basic factual analysis contained therein is accurate?

Mr. BARNES. We have had conferences and discussed it, and I can assure you that the Plotkin report has been read very carefully and studied in the Antitrust Division, as was the Jones matter. But I don't know that we have ever gone into formal consideration with the FCC as to whether the factual situation is valid, or whether it is not.

Mr. COX. There is certainly, on the surface, some parallelism between the practice and the block booking system in respect to the theaters.

Mr. BARNES. Yes; as I pointed out in my opening statement, there certainly is, and that is one of the reasons we are concerned.

Mr. COX. Is there also some possibility that the affiliate which is bound to take all programs during the option time is the victim of blind selling, which was also condemned in the Paramount case?

Mr. BARNES. That is my understanding of the possibility, and I believe we have had 1 or 2 complaints along those lines. I recall some correspondence to that effect.

Mr. COX. And those, I take it, under your policy, are being investigated, as facilities permit?

Mr. BARNES. Yes; just let me say, as I frequently said before, in any matter as fundamental to our economy as television, we don't just put the letters in the wastebasket. On the other hand, we cannot start an investigation on a particular complaint in a particular locality every time we get a letter. We have a general accumulation of evidence that may not be designated as an investigation, which continues all the time on these troublesome subjects.

Mr. COX. Is there any similarity between the position which the networks occupy by virtue of their time option rights and the master agreements and formula deals which were held illegal in the Paramount case?

Mr. BARNES. I don't think that I could answer that question without a good deal of study to cite a few cases, or find that there were none. So I don't think I should try to answer that question.

Mr. COX. There has been testimony that NBC and CBS follow a must-buy policy, under which an advertiser, to get on the network at all, must buy time on a minimum of 50 or 55 stations, whether he wants to advertise in all these markets or not? Is there a possibility that this practice might violate the antitrust law?

Mr. BARNES. Yes.

Mr. COX. Has the Department received complaints with respect to that practice?

The CHAIRMAN. I think the Department has knowledge of it. I don't know that there has been particularly one complaint; is that right, Judge?

Mr. BARNES. I recognize it as a problem. I don't specifically recall any complaints. I wouldn't be too certain of that.

Mr. COX. That is all I have, Judge Barnes.

Senator PASTORE. Any further questions?

Senator PURTELL. No questions, except that your testimony was most informative and very helpful to us.

SENATOR PASTORE. Thank you very much for coming, Mr. Barnes.

MR. BARNES. I should have said for the purpose of the record that I am accompanied here by, on my left, Mr. Robert Bicks, who is legal assistant to the Assistant Attorney General; on my right Mr. Victor Kramer, who is the section chief who has to do with general supervision over television matters; and next to him, Mr. Hollander, who is our liaison representative with the FCC, all of whom have been of aid to me here.

Thank you, sir.

MR. COX. We appreciate your coming.

SENATOR PASTORE. We have Congressman Morano here who would like to make a statement for the record and then will leave. Congressman Morano?

STATEMENT OF HON. ALBERT P. MORANO, REPRESENTATIVE IN CONGRESS FROM THE FOURTH DISTRICT OF THE STATE OF CONNECTICUT

MR. MORANO. Mr. Chairman, thank you for the opportunity to testify briefly. I represent the Fourth Congressional District of Connecticut, which has no local television. The people in my district, though interested in their community problems and activities, elections, and special events, are fed only by programs from New York and New Jersey.

I cannot appear on television in my own district. I cannot reach my constituents by this important medium. Local advertisers cannot reach those whom they would serve through this medium. Consequently, development of the community and the economic expansion in the community are thwarted. Business is directed more toward the cities from which the TV emanates.

I am appalled to find—I have been told this, I don't know whether it is true or not—that approximately one-third of the congressional districts in this country are in the same condition as mine.

Since this important means of public communication is lost to so many, who must depend on TV stations in other districts and in some cases even in other States, this inquiry into the situation is called for, because I believe that I, myself, and a lot of other Congressmen, would like to know the reasons why this situation exists today, and we would like to see some solution—some equitable solution—found, and the problem resolved.

That is all I have to say.

SENATOR PASTORE. Any questions of the Congressman? Thank you very much for appearing.

Our next witness is Mr. Philip Merryman. I understand that there are several distinguished people with him and they are all welcome to come forward. Mr. Merryman, have you some people with you who might testify?

MR. MERRYMAN. Yes, sir.

SENATOR PASTORE. May we please have silence so that with your cooperation our witnesses may be heard.

STATEMENT OF PHILIP MERRYMAN, WICC-TV, BRIDGEPORT, CONN., PRESIDENT OF HOMETOWN TELEVISION, INC., ACCOMPANIED BY DUDLEY JEWELL, MANAGING DIRECTOR, BRIDGEPORT CHAMBER OF COMMERCE, BRIDGEPORT, CONN.; DR. WILLIAM H. ALDERSON, PASTOR OF THE FIRST METHODIST CHURCH OF BRIDGEPORT; THE REV. DAVID F. BANNON, REPRESENTING THE BISHOP OF BRIDGEPORT DIOCESE; MRS. STEPHANIE McCARTHY, DIRECTOR OF RED CROSS FOR BRIDGEPORT; AND MRS. SIMON FRANK, PARENT-TEACHERS ASSOCIATION OF BRIDGEPORT

MR. MERRYMAN. Mr. Chairman, may I direct an inquiry before I begin?

Senator PASTORE. You may.

MR. MERRYMAN. Is the record of the hearings before the Potter committee in April or May of 1954 to be incorporated by reference in this proceeding?

Senator PASTORE. It won't be incorporated by reference as a matter of formal incorporation. It is simply a part of the entire record and investigation on the part of this committee. You may rest assured that anything in that report is of notice to the committee.

MR. MERRYMAN. Does that include the recommendations of the committee? I understand Senator Potter yesterday to say there were recommendations by the subcommittee.

Senator PASTORE. The entire report; yes, sir.

MR. MERRYMAN. Another question, Mr. Chairman: I have heard that there will be a recess of this committee after tomorrow for about a month, after which the networks will appear.

Senator PASTORE. The chairman can answer that question.

The CHAIRMAN. No. We are setting the dates for these hearings as quickly as possible. We have yesterday and today, and what is the plan?

Mr. Cox. We have one Friday.

The CHAIRMAN. One Friday, and then some next week again?

Mr. Cox. Probably not next week, but we hope sometime in the middle of the month.

MR. MERRYMAN. Will the participants in this testimony have an opportunity—

The CHAIRMAN. I might say the networks have written us to the effect that they would like to testify first on this engineering, UHF-VHF problem, and then they would like a few days to come again and testify on the network problem, which is another phase of it. So there may be an interval in between there.

MR. MERRYMAN. Will there be an opportunity for the other participants to have rebuttal testimony after the networks?

The CHAIRMAN. Yes, you may have all the opportunity you want to testify.

MR. MERRYMAN. Thank you, sir.

MR. Chairman, I had expected to present all of these witnesses after I finished my testimony. Two of the gentlemen have planes to make. They have important engagements in Bridgeport this evening. I would like, if I may, to present Mr. Dudley Jewell and Dr. Alderson, first.

Senator PASTORE. All right, if you will identify yourselves and make your statement.

Mr. JEWELL. Mr. Chairman, my name is Dudley Jewell. I am manager of the Chamber of Commerce of Bridgeport, Conn.

We have a particularly exasperating problem, and a frustrating one, in our area, which is Fairfield County, with regard to television service. It is a problem that is difficult of solution, and we are certainly glad to see this committee giving some attention to it.

In Connecticut, we are a small State, but the last time I heard we were still rated as one of the sovereign States. We wonder why, or under what reasoning or what rhyme or reason, 7 television channels have been assigned to 1 city in 1 State, while 2 television channels have been assigned to the entire State of Connecticut.

Senator PASTORE. I am surprised you didn't know that. I have been asking the same question for 2 years.

Mr. JEWELL. Mr. Chairman, we have been asking the question, and we have been unable to get an answer. We have a television station in Bridgeport which has been on the air now for well over 2 years. I am sorry, Phil, I don't remember the exact time that WICC-TV went on the air.

It has been fighting a losing battle, because we have very few sets in the area with tuners to receive that station. Yet we are a metropolitan area of considerable proportion. In our immediate area we service something like 300,000 people in Bridgeport and 4 contiguous communities, a population of important size and consideration.

These people have access only to New York radio and New York television. They are well versed on all of the goings on in the State of New York, and they can tell you what the Governor of New York is doing, or the mayor of New York City, but they have little opportunity to view Connecticut problems.

From time to time we have people running for public office in our State. They have no opportunity to be seen by the voters in Connecticut and in Fairfield County. We have substantial business establishments in our community which have no access to television advertising on a competitive basis with New York stores, for example.

One of the arguments that is always raised against us is that a small area like ours, and with local television programming, perhaps some sacrifice of the New York channel would be required, or maybe the reception quality would be diminished to some extent, and that we can't equal that programming in the public interest.

I would submit to you, Mr. Chairman, that we have the same situation with radio. New York radioblankets our area. You can turn your radio dial just a few marks and you have a different station. But I would point out, and I think Mr. Merryman can support this, that even with that overwhelming type of blanket competition from New York radio, in our area at any given time almost, during the early morning broadcast hours, during the day, during the evening, almost any time, 80 percent of the radio sets in our area which are tuned in are tuned to WICC, Bridgeport.

The reason they are is because of good local programming. WICC is not a network station. Yet by good programming and local interest, they are able to attract by far the majority of the radio audience. We feel sure that a similar showing could be made on local programming by television.

Frankly, there is a channel vacant in our area, and for the life of me I can't see why it shouldn't be made available to WICC—channel 6.

Senator PURTELL. May I interrupt a minute, Mr. Chairman? When you speak of channels—WICC is an ultrahigh?

Mr. JEWELL. Yes, sir.

Senator PURTELL. Now you are talking about a very high frequency channel.

Mr. JEWELL. Yes.

Senator PURTELL. I think we ought to differentiate in talking about channels.

Mr. JEWELL. VHF channel 6. In our area, with 300,000 people, and many thousands of television sets, channel 6 is vacant. You tune to channel 6 and there is nothing.

Yet when we talk to the FCC about this, we are told about some possible interruption in service because Philadelphia is on channel 6 and Schenectady is on channel 6, and there are a few handfuls of people out in the middle somewhere, who get marginal reception at best with booster arrangements on their television sets. So their best service is unsatisfactory, and yet apparently there would be some interference with even that unsatisfactory service.

But we are denying television service to a much larger group of people. We feel that we are entitled to consideration for a regular television channel. We feel that our business people and our industries should have access to television. We have a television station, it is true, but its coverage is very light because, after all, when you talk to Joe Doakes who has a television set and can already receive seven channels of television, it is pretty hard to convince him that he should spend another \$50 to add a strip tuner or something and make special alterations on his antenna.

Channel 8 reception, which is VHF—channel 8 reception, which comes out of New Haven, which is 1 of our 2 channels in all of Connecticut, gives us spotty reception in the Bridgeport area, primarily because all of the antennas are beamed toward the New York stations. So in some spots we do have some sets that receive channel 8, but for others, it is simply not available and it is marginal reception.

Our plea to this committee is to give some consideration to relief for our area so that we, too, can enjoy adequate television service, because for all practical purposes now, we have none available to us on a local basis.

Obviously our business people in Bridgeport cannot make use of the many New York channels, because the rates are prohibitive. They simply can't buy that kind of television time.

Senator PASTORE. Any questions?

Senator PURTELL. What you are asking for, then, is relief, as I understand it, Mr. Jewell, in the form of an assignment of a very high frequency to that area; is that correct?

Mr. JEWELL. That is right, Senator.

Senator PURTELL. You are telling the committee that the number of sets able to receive ultrahigh is rather small as compared to the total number of sets there. All sets can get very high. Very few sets—or am I correct in understanding that relatively few sets can get ultrahigh in the Bridgeport area?

Mr. JEWELL. That is right, very few sets.

Senator PURTELL. So they are limited entirely to New York stations, if they haven't a converter to get ultrahigh in the Bridgeport area; is that correct?

Mr. JEWELL. That is right. I might say that we are all indebted to Mr. Merryman for a rather valiant, but losing, battle that he has been putting up out there to maintain television service in the Bridgeport area, and try to service us. But it is almost an insurmountable problem.

Senator POTTER. Are you completely blanketed by the New York stations?

Mr. JEWELL. Yes, we are, Senator. And the reception comes in very strong on all channels. We seem to be in a kind of a contradictory situation. I know many people say, "Well, gentlemen, what are you complaining about? Seven television stations. Out where I live we only have 1 channel, or 2, and even here in Washington I think there are only 4."

So it would look, on the surface, as if we are suffering from a prosperity of television service, when actually we are not, you see. We are in a pocket. We are completely blanketed by New York stations.

The question we have been asking—the question the chairman asked—is: Why does one city rate 7 channels, while a whole State is given only 2 channels?

Senator PASTORE. And that is your frustration, because while it is true that the viewer has the advantage of seven national setups, he doesn't have the local community service that he is entitled to.

Mr. JEWELL. That is right, sir.

Senator PASTORE. I think in a very concise and simple fashion, you have pointed out what is the crux of this whole problem. Unless television begins to assume an aspect of community service, whereby people in a community who want to advertise on television can do so without paying the exorbitant prices they must if they go to the New York market, eventually, of course, these communities are going to be without that service to which they are entitled.

Mr. Cox. For the record, Mr. Jewell, you stated there are only two channels in Connecticut. You mean two VHF channels?

Mr. JEWELL. There are two VHF channels assigned, of which one has been on the air for some time at New Haven.

Mr. Cox. The other one is still in contention before the Commission; is that right?

Mr. JEWELL. At Hartford.

Senator PURTELL. The contest is as to whom it shall be assigned.

Mr. JEWELL. But the committee should understand, Senator, regardless of who gets that channel, when it eventually goes on the air, it still doesn't give Bridgeport, and Fairfield County even, Connecticut television.

Mr. Cox. That is, your statement was limited to VHF because there are in Connecticut, in addition to the channel on which Mr. Merryman operates, a number of other UHF allocations which are not in use.

Mr. JEWELL. That is right, sir.

Senator PURTELL. Mr. Chairman, may I ask this question? But what you want, if I understand your testimony—and I think I do—is that because VHF is coming out of New York and your people there—

fore have available to them these seven channels of very high frequency reception, they are therefore not disposed to change their sets to get the ultrahigh frequency which is available to them in Bridgeport.

The answer to that would be, in your opinion, the assignment of a very high frequency channel to Bridgeport, is that correct?

Mr. JEWELL. That is what we would like, Senator. We would like to have channel 6.

Mr. Cox. Do you get a really satisfactory picture from these New York stations?

Mr. JEWELL. Yes.

Mr. Cox. It is not a fringe service?

Mr. JEWELL. It is not a fringe service at all. It is a class A service.

Mr. Cox. We are advised by the Commission you shouldn't do this because it is outside of the area covered, by their standards.

Senator PASTORE. Now if you wait long enough, justice does prevail.

Senator PURTELL. I might say to the distinguished and beloved acting chairman that certainly if we in Bridgeport had two very high frequency stations there we would feel very happy, would we not?

Mr. JEWELL. That is right.

Senator PASTORE. If Pastore had anything to do about it, you would have three of them.

Senator PURTELL. I hope that you do have something to do about it, so we might have three.

Mr. JEWELL. We will be happy with just one.

Senator POTTER. If Pastore and Purtell will work as hard for Cheboygan—

Senator PASTORE. Mr. Merryman, who is your next witness?

Mr. MERRYMAN. I would like to present Dr. William H. Alderson, who will speak for the Interchurch Council of Bridgeport.

Dr. ALDERSON. I am the pastor of the First Methodist Church in Bridgeport, and I have been for 17 years, lacking 2 or 3 months. I think I speak for most of the Protestant people in Bridgeport, and for the Council of Churches, which is our organized group.

In the light of what Dudley Jewell has said, I want to put in a good firm plug, if I may, for hometown television—that is the thing we are after. Primarily, I am interested in Bridgeport, because that is my hometown, but I am thinking of every community like Bridgeport across the country, and what I say applies there equally as it does to Bridgeport.

I think that we are on sound ground when we say that America is made up of a group of communities, and I think that our sense of national unity grows out of our loyalty to our own local community. That is the grassroots. That is where it starts.

If you are loyal to your own community, there is then a foundation on which you can be loyal to your State, or to your section, or to your country as a whole. Therefore, what helps the community helps the country as a whole. That is the point I want to make here.

I think that we will all agree that these large stations which send us programs that are nationally televised have excellent programs and all that. But there is a lack of community consciousness that we miss, that we are unable to get when we hear these large stations.

There is nothing that stirs your loyalty and enthusiasm like that which roots right in your own hometown. I read the New York Times

every morning, but because I read the New York Times—which is a great newspaper and covers the whole world—that doesn't mean that I don't read any hometown paper. I am sure every member of this committee, and every Senator here, takes his own hometown paper, although he reads all the great dailies from across the country.

You never see as much enthusiasm generated for the Yankees or the Dodgers or the Cincinnati Reds or whatever they may be, as you do for the hometown team. We are all interested in organized baseball, and we follow it, and we follow it vigilantly. We are not American if we don't.

But when it comes to the old hometown team, the Dodgers aren't in it with that team, you see. Everybody is interested in what is doing in his own hometown.

The same thing is true in a local political fight. We never have a chance to see the faces of our politicians. That may be a blessing, I don't know. [Laughter.]

Senator PURTELL. But you do have a chance to see your statesmen, do you not? [Laughter.]

Dr. ALDERSON. That is right. The statesmen, of course, can command these larger stations, but the local politicians cannot. Therefore, when you only hear their voices—and if it wasn't for our fine radio station we wouldn't even be able to do that—we lose a sense of belonging to a community in which these men live, and of which they are a part.

I have had an unusual privilege for the last 10 years, I think it is, with respect to broadcasting on our local radio station, and also for a year, when Mr. Merryman was able to go down into his own pocket and the pockets of his supporters, and pay for it, we had a service, a Sunday afternoon service, on his television station.

I know—I speak from experience—when I say that there is a value to the people in the local community through religious channels, religious services, hearing the voices of men whom they know and seeing the faces of men whom they see in the community gatherings and whom they pass on the street.

It is not only valuable to the man who has that privilege, it is valuable to the community and it is a great service to the community.

The local station in the community does something which obviously the big station can't do—they do a measure of it, but in the local community, the station carries so much of what I understand is supporting time—although I am not a technician at this point. That is, free programs which they give as a service to the community. It costs nothing. Our religious programs in Bridgeport, which are on the air, cost nothing. For an entire year this station carried the cost of a television service where we have music and a sermon, such as it was, every Sunday afternoon, and without cost to us. It was a service to the community. It helped bring the people of the community together in spirit, where they felt our town is doing something here and doing it for us.

It has a grassroots connection that you don't get from the huge station that blankets the whole country, or that is on a network.

I don't want to take any more of your time. I think that I should have made the point that I want to make, which is that hometown television has a value in this country that can never be gained from

the large station, and just as enthusiastically as I can, I want to request that those who are responsible for thinking this question through will arrive at some plan. I do not have the plan because I am not technically trained at this point, but some plan by which Bridgeport and hundreds of other communities across the country can have their hometown television, which in many, many of its programs means more to them than the national hookups can ever mean.

I am very grateful to Mr. Merryman for giving me a chance to say this. I didn't need to be urged to come and say it. I have been awaiting an opportunity to speak this word in behalf of my own community and other communities like it across the country.

The CHAIRMAN. Thank you.

MR. MERRYMAN. Mr. Chairman, I think my statement will run beyond the recess period. So may I go ahead with the other witnesses?

The CHAIRMAN. Yes; go right ahead.

MR. MERRYMAN. I would like to present the Reverend Bannon, who will represent the bishop of the diocese of Bridgeport.

Reverend BANNON. Mr. Chairman, my name is the Reverend David Bannon, from Bridgeport, and I come here at the request of His Excellency the Most Reverend Lawrence J. Sheean, bishop of the Diocese of Bridgeport.

I am sure that even way down here in Washington much has been heard about the new and very progressive diocese of Bridgeport, under the direction of the former Washingtonian, Bishop Sheean.

Bishop Sheean at this time is extremely concerned about the lack of a television facility for the benefit of his some 250,000 people living in Fairfield County. He is perfectly acquainted with the television facility that we have and knows very well the handicaps under which it has been laboring.

He is extremely aware of the power for good, in all his efforts to reach his people, that television of a proper kind might service.

I would just like to mention a few of the institutions or organizations directly under his leadership that he feels could benefit and prosper for the spiritual and moral well-being of his people if this new and very influential instrument of propaganda, TV, could be at his disposal.

I am thinking in terms of Catholic charities in the Bridgeport area, which I might say, by the way, is, I think, the No. 1 beneficiary of the United Fund.

Also, the Catholic Youth Organization, catering to the social, recreational, cultural, and religious needs and hungers of the modern youth in our community.

His diocesan school system which could benefit so much by a television time that would reach the people, the Society for the Propagation of the Faith, and many other organizations who have, fortunately, not only during his 2-year reign but for the past 10 years, benefited greatly by the hometown radio facilities that recognized a responsibility to, and were most responsive to, the needs of the Catholic population in the area.

Let me insert here that for the last 5 years, through the generous cooperation of Mr. Merryman, station WICC radio, we have been able to bring a daily presentation of the Rosary across the calendar year into countless homes.

I don't think that the diocese of Bridgeport has ever requested a courtesy or time or cooperation of our local radio services and found them wanting in a willingness to give cooperation.

Bishop Sheean assures me that at this moment he has many, many plans and programs that he would like to bring to a local TV service if he felt the local TV service was going to be in a position to serve his people. However, at the present time, as you have been made well aware, we are, on a hometown basis, finding ourselves in a position where we feel we are being terribly neglected—Fairfield County depending completely upon outside television.

Very little, nothing really, of a hometown interest can be brought into our homes, day after day or night after night, that is of local interest to our countless multitudes of people. Therefore I would consider this a privilege to have this opportunity, in the name of the bishop of the diocese of Bridgeport, to present to you a very earnest request, that whatever might be within your power, might be granted to our local TV outlet so that we might be put on a local basis on a par with the outside stations that are now serving our people.

I can assure you that the whole population—and speaking in the name of Bishop Sheean, surely the complete Catholic population of Fairfield County—will indeed be grateful for whatever you can do to help them to have a television service that will be serviceable to their many needs.

Thank you.

The CHAIRMAN. Thank you, Father. Any questions?

Senator PURTELL. No, except to thank the Father for coming down and giving us the information he has.

Mr. MERRYMAN. May I present Mrs. Stephanie McCarthy, director of Red Cross for Bridgeport, who will speak for the community services.

The CHAIRMAN. Before you start, may I ask this question: I don't know. Is there an application before the FCC for this channel?

Mr. MERRYMAN. We have had an application in for nearly 2 years. It is now tied up in this present rulemaking proceeding, the general proceeding.

Senator PURTELL. May I ask a question?

The CHAIRMAN. Yes, sir.

Senator PURTELL. Do I gather, Mr. Merryman, that what you feel is the answer now to your Bridgeport problem—and it is a problem—is a very high channel for Bridgeport?

Mr. MERRYMAN. That is the only solution that will give us immediate relief. We have a plan for long-term relief that we would like to suggest to the committee.

Senator PURTELL. That will be developed, however, in your testimony?

Mr. MERRYMAN. That is right, sir.

The CHAIRMAN. Go ahead, Mrs. McCarthy.

Mrs. McCARTHY. I am Mrs. Stephanie McCarthy and I am here in a multiple capacity, I might say, representing the Red Cross. The Red Cross is part of the United Fund. I am representing the Council of Social Agencies. There are some 110 agencies in Bridgeport, and, may I add with pride, as a grandmother and a mother—of course I

always have to get that in. As a group of social agencies we are extremely interested in providing services to the people of Bridgeport. We need to educate, we need to interpret, we need to promote.

We are making a very valiant effort, I might say, to develop safer living, better living, better civic consciousness. We have tried all the facilities available and feel now, and have felt for some time, that the need for a local hometown television is very, very great.

It has been an up-hill job. We feel sometimes hamstrung. Maybe I should not use that word, referring to television. Let us say we feel handicapped to a great degree; that we cannot put across to the public what we would like to.

Let's take education. What better way is there for us of the various social agencies and various groups in Bridgeport to present to the public what we are trying to do, and what we are giving to them, than the audiovisual facility of hometown television, which has been lost, of course, in Bridgeport.

Let me cite two examples, especially in Red Cross. We live in days of emergency. We never know what emergency the day might bring forth. On the 19th of last August we had the tremendous emergency of the Naugatuck Valley floods, the Eastern States floods. True, the radio supported us mightily, and is very powerful. But how much more powerful it might have been if we had depicted to the public what was happening up and down the valley and the need of immediate relief from everybody.

It is true the public responded very well, but they had a feeling that it was a kind of a long-distance presentation. It was the New York stations that showed pictures, and, of course, people were most anxious to see what the local situation was.

Another emergency that comes up repeatedly with Red Cross, in spite of our beautiful program of blood service, providing blood free for people in hospitals, we hit emergencies. When you hit that emergency there may be a man dying or a child being born, and that child and his mother might die because there is a shortage of a certain type of blood.

True, you can give it to the newspapers, and we do. They do well by it. We give it to the radio. But if you could depict that on your local hometown television—depict that need in an audio and a visual way, it would be much more effective.

I don't believe that there is any other means of education that receives as much time from the average individual as television. To repeat what Dr. Alderson has said, local people are interested in local happenings and local news and local personalities. Therefore a local hometown television, available to all people with sets, is what we need.

The person in Bridgeport is interested in what is going on in Bridgeport. We still get the national and the international activities, but the first interest is what is going on at home. We cannot get that unless we have the proper kind of television in the community.

We of the agencies need to reach hundreds of people. We need to educate them as to what we are doing. We have to picture to them the resources of the agency. Where will the serviceman in difficulty go? Where will—and I am including all agencies—a mentally disturbed person go? If this education could be carried on through television, it would make our job much easier and it would present to

thousands upon thousands of people the resources that are available to them.

You may write, and you may speak over the radio, but still you must see things. We have to interpret what we do. People should be interested, if they are not, in what an agency does, and a good interpretation of what is done by an agency will result in what is all mighty important, and that is the raising of funds.

We can't exist without promoting our agencies. We can't exist without promoting the need for funds to carry on humanitarian work, and the best way to present it would be over television in a local capacity.

I am probably talking too long—I always do. At least my husband tells me that. [Laughter.] But you see, this is not merely an effort to get money. It is more important. It is an effort to develop a social and civic responsibility. And believe me, in industrial communities like Bridgeport and many others, it is a rough job to develop that social and civic responsibility among all people.

But when we can visually present to people a feeling for one's fellow men, then our problems can be solved and the results would be a higher caliber of people and a better community.

If you can sell soap or cornflakes, you certainly can sell humanity, and the pattern for decent American living. You see, through the local television, you can set the tone of culture and intelligence and the loyalties of the community.

I would like to say "amen" to everything that Dr. Alderson has said, and Father Bannon, but I would like to repeat also what they have said, that it is so important—terribly important—that we do this on a local basis.

In spite of all the resources of the nationwide networks, and I have all respect for them, there is still need for that effective use of local television. It is a chain—maybe I shouldn't say a chain—it is a bond which will improve local communities. It will improve and coordinate local units of government, and it will result in a better unit of national living and national thinking.

That is all I wish to say, except the one little addendum—if that is the proper word—that we are enormously grateful to Mr. Merryman and the facilities of the radio station which have been given to us at all times at any request.

But we would like to add that Mr. Merryman and Bridgeport need a local television station, as do other towns of the same size and capacity.

Thank you.

The CHAIRMAN. Thank you. Any questions?

Senator PURTELL. No; except again I want to express my appreciation for your coming down to give us this information you have given us.

Mrs. McCARTHY. Thank you.

Mr. MERRYMAN. May I present Mrs. Simon Frank, who will speak for the parent-teachers' association.

The CHAIRMAN. Yes; we will be glad to hear from you.

Mrs. FRANK. You know, PTA has become the largest lay-professional organization in the world. We have 10 million members nationally. We have members in Alaska and Hawaii.

We have found that it has become a vital and integral part in the business of education. We feel that hometown TV would do a great deal of creating a large amount of interest in showing what our educational administrators do, what the board of education does.

Many people are not aware of the departments in our school administration. They just feel that if you need a band, it is up to the principal of the school. They do not realize that this goes through the board of education; that there are many things involved. If we had these people on hometown TV and planned something whereby they would hear these people speak and know that they are doing something that is actually a part of their children's education, it would stimulate their interest.

I myself do not have UHF because I do not feel I want to put the money out for this UHF. I feel I would like very much to see the programs that come on WICC-TV.

The CHAIRMAN. Is there a UHF channel there?

MR. MERRYMAN. Yes; I operate a UHF station.

MRS. FRANK. But still we would have to have special equipment, which is quite highly priced. For that, we have to give up seeing what our local TV does.

We want our hometown people informed and educated. We want to make our hometown people more aware of legislation, the things that go on in Hartford; and we in PTA have a very extensive legislative program.

We would like to make our people aware of the issues, so that they know when they vote what issue is of greater importance at the time.

I do not know what better way there is for children to learn than to learn by visual aids. In the schools we are now getting all types of visual aids. We in the PTA have spent a great deal of money putting in projectors and screens and sending films. We have started a film library.

What a child sees, he can remember. We feel if hometown TV were made available, they would never forget the things that they saw. If there were educational programs, they would really be retained for a greater period of time than just having to read something.

We feel that we could plan programs that would help the adults. We have an adult education program which is very difficult to put over on radio. When you see a person speaking, you pay attention; whereas when it is on the radio, you may be distracted by one thing and another.

Firstly and foremost, we would like to have the children realize that we are working for democracy and freedom and we are very grateful to Mr. Merryman. Many are the times that I have called up WICC and asked him to put on announcements for conventions, for very important pieces of legislation, and he has been very kind.

But by the same token, it does not reach as many people as it would if we had TV.

It is a great privilege to be here and present this to you.

Senator PURTELL. I would like to express my appreciation for your coming down. When you speak of WICC, of course, you are speaking now of the radio station, when you say these announcements can be carried to a great number of people.

MRS. FRANK. Yes.

Senator PURTELL. When you talk about WICC, your feeling is, is it, because of the limited number of people with ultrahigh receiving sets, they cannot get those messages on television? Is that correct?

Mrs. FRANK. That is right. I myself would have liked to watch certain programs. We just cannot.

Senator PURTELL. Am I correct, then, in assuming that what you listen to, because you do not have an ultrahigh receiving set, is New York stations

Mrs. FRANK. Yes; we would have to put in this special equipment.

Senator PURTELL. Thank you.

The CHAIRMAN. Is most of your programing local for your U station?

Mr. MERRYMAN. It is; I would say, about 50 percent; either local film originations or local programs in the studio.

The CHAIRMAN. But the set situation is such in Bridgeport that that coverage would be very limited?

Mr. MERRYMAN. We have less than 10 percent of the receivers in the area.

The CHAIRMAN. So therefore that hometown programing would reach very few people.

Mr. MERRYMAN. That is right. It was our feeling, when we started the station, that by producing local programs we could convince the local viewers that it would pay them to invest this money in converters. Despite all the efforts we could make with the resources we had available, we still have not been able to persuade them.

Senator PURTELL. Mr. Chairman, may I ask a question?

The CHAIRMAN. Yes.

Senator PURTELL. Is one of your reasons, Mr. Merryman—I do not wish to put words in your mouth; I am trying to find what the answer is, as is everybody on this committee—because the people in Bridgeport have available to them so many very high-frequency station programs out of other cities than Bridgeport, such as New York? Is that correct?

Mr. MERRYMAN. That is right, Senator.

Senator PURTELL. So you have a peculiar situation in that respect, or one that is not common. Let me say, to all other ultrahigh stations.

Mr. MERRYMAN. I would say it is peculiar. It is perhaps as severe as any situation in the country. However, we have met the same in radio, and we are way out on top.

The CHAIRMAN. That gets down, of course, to the fact that every radio set can receive any radio station.

Mr. MERRYMAN. That is right, sir. A new radio station goes on the air and immediately every radio receiver can get that station.

The CHAIRMAN. It is down to the problem we have been wrestling with here for a long time—the problem of the set.

Mr. MERRYMAN. That is right, sir.

The CHAIRMAN. And the UHF-VHF problem.

Mr. MERRYMAN. I might add that at this moment, many people like Mrs. Frank have gone to the local retailers and specifically requested a set to get WICC-TV. The retailer, finding it not to his advantage to try to sell the UHF set, has endeavored to persuade them to buy a VHF only set.

Senator POTTER. That happens many places.

The CHAIRMAN. That is true in a lot of places.

I want to say to these good people who are here, we appreciate your coming. I do not think there is a one of us on the committee who also does not appreciate the value of local hometown programing. Many of us have the same complaint.

It is a big city like the one I live in, we are limited to only networks coming in. There are local stations, but network programs—the difficulty of local advertisers. But a lot of it gets on.

Under the FCC programing rules criteria, you would put on a great number of these local programs such as suggested here. Would that not be correct?

Mr. MERRYMAN. We would operate it the same way, sir, that we operate the radio station—in the local public interest.

Senator PURTELL. May I ask one more question. Do I understand, Mr. Merryman, that the conversions total only 10 percent of the total sets in that area?

Mr. MERRYMAN. That is the figure that I deem most reliable.

Senator PURTELL. So actually, then, local merchants attempting to advertise over TV would find it prohibitive in cost to try to do it out of New York, when they are trying to reach a very limited number of people that are out of New York in the Bridgeport market, would they not? They would therefore find it difficult to advertise over TV at all, would they not?

Mr. MERRYMAN. They find it impossible.

Senator PURTELL. Except nationally sold products.

Mr. MERRYMAN. The local merchant competing with the chain store setups—the chain stores can afford to buy the New York stations because they have outlets all over the New York area and they sell in Bridgeport as well in all the other areas, and pull the business to New York.

We do not even try to sell the local merchant our television station because we know that even the small amount of money we charge for it will not give him a return. He cannot, on the other hand, afford to pay the costs of the stations in New York City.

The CHAIRMAN. Let me ask one question for the record, too. You have your application. Are there other applicants for this channel 6?

Mr. MERRYMAN. No, sir; there were two UHF assignments to Bridgeport.

The CHAIRMAN. I meant on the V.

Mr. MERRYMAN. There are no other V applications at the present time.

The CHAIRMAN. There are no other applications? You are technically the only applicant now?

Senator POTTER. It is a rule-making procedure.

The CHAIRMAN. I see. In other words, they have not assigned the channel yet to that area. Then if the channel were assigned to that area, say, you could become an applicant?

Mr. MERRYMAN. That is right. I assume if the Commission did assign a channel to Bridgeport, there would be numerous applicants for that VHF channel.

Senator POTTER. Then your fight would just begin.

The CHAIRMAN. We want to thank you again.

We will recess the committee now until 2:15.

(Thereupon, at 12:10 p. m., the committee recessed, to reconvene at 2:15 p. m., on the same day.)

AFTERNOON SESSION

The CHAIRMAN. The committee will come to order.

We will insert at this point in the record, without objection, a letter from the Governor of the Commonwealth of Massachusetts, dated February 1, 1956, addressed to the Honorable John F. Kennedy, Senate Office Building, Washington, D. C.

(The letter is as follows:)

THE COMMONWEALTH OF MASSACHUSETTS,
EXECUTIVE DEPARTMENT,
State House, Boston, February 1, 1956.

HON. JOHN F. KENNEDY,
Senate Office Building, Washington, D. C.

DEAR SENATOR: It is my understanding that a Senate Interstate and Foreign Commerce Subcommittee is now conducting hearings on certain problems raised by the holders of ultra high frequency television licenses, some of whose stations are located in Massachusetts.

It is the claim of this group that recent rulings by the Federal Communications Commission, granting the holders of certain VHF licenses the right to increase their transmitting power and to increase the height of their transmitter towers, unfairly place the holders of UHF licenses in an unfavorable position.

It is held that these Commission rulings will act to centralize television broadcasting in the so-called large stations and to curtail or even wipe out the smaller "home town" stations holding UHF licenses.

In my opinion it is important that "home town" television be maintained on a more healthy basis than at present. Local television stations serving smaller areas can surely serve Massachusetts communities better than the larger stations blanketing wide areas from transmitters located in other States.

My warmest personal regards.

Sincerely,

CHRISTIAN A. HERTER.

The CHAIRMAN. At this point in the record, without objection, we will insert a letter from the Camden Broadcasting Corp., Camden, S. C., signed by H. S. Bowden, president, Camden Broadcasting Corp., dated February 20, 1956, and addressed to the chairman of this committee.

(The letter is as follows:)

CAMDEN BROADCASTING CORP.,
Camden, S. C., February 20, 1956.

SENATOR WARREN G. MAGNUSON,
Chairman, Senate Interstate and Foreign Commerce Committee, United States Senate, Washington, D. C.

HONORABLE SIR: I have your letter concerning hearings on television broadcasting.

Upon advice of my physician, apparently it would be impossible for me to appear as a witness.

However, I feel that I must not overlook this opportunity to express myself in the matter of UHF television. So, would you please consider this letter as a contribution to the hearing? Or at least, take the ideas contained here under advisement.

As a broadcaster and as a retail dealer in TV sales and service, I cannot help but feel that the American public has been "sold down the river" by the set manufacturers. We have seen in central South Carolina how UHF is superior in so many ways to VHF reception. And yet the set manufacturers have forced the public to say "premium" to see and hear UHF. In short, it costs the consumer from \$15 to \$80 more for a set which will receive both UHF and VHF. In consequence, the public considers UHF something "extra," but not necessary.

Consider this hypothetical case. Suppose the radio set makers would suddenly decide to make sets which had the radio spectrum only from 600 to 1600 kilocycles—and suppose they charged the public a "small fee" to add the lower 50 kilocycles. Virtually every radio station with assigned frequency under 600 kilocycles would go out of business.

Now, many thousands of American families have already made the investment needed to add UHF reception to their receivers, some of them paid the extra dollars when they bought a new set which would get both. Without immediate and strong measures, the UHF broadcasters are going out of business. In fact, the delay has already killed off many of them. That segment of American public who believed in their local broadcasters and their local service and repair men are left holding a useless bag.

Whether all broadcasters become UHF or all become VHF, the consumer is the loser.

I feel very strongly that UHF is as dead as FM radio for commercial purposes. Congress can correct it. But it will only be done when there is no such thing in the public mind as UHF or VHF. It must all be television from lower to higher numbers on the spectrum.

Radio set manufacturers are required to make sets with all standard frequencies on 1 dial, in 1 set.

Why not TV set markers?

Thank you, and the best of luck in the hearings. I earnestly hope you can come up with the right solution.

Sincerely,

H. S. BOWDEN, *President.*

The CHAIRMAN. Mr. Merryman, we will be glad to hear from you.

STATEMENT OF PHILIP MERRYMAN, WICC-TV, BRIDGEPORT, CONN., PRESIDENT, HOMETOWN TELEVISION, INC., ACCOMPANIED BY BEN ADLER, PRESIDENT, ADLER COMMUNICATIONS LABORATORIES, NEW ROCHELLE, N. Y.

Mr. MERRYMAN. I am here today as president of the Committee for Hometown Television, a group of station operators in New England. I might add we are a corporation organized under the laws of the State of Connecticut as a nonprofit corporation. Our members are largely confined to the States of Connecticut and Massachusetts, but we intend to extend the scope of operations of the Committee of Hometown Television on a nationwide basis.

Between us we represent just about every kind of television operation: VHF as well as UHF operators; hopeful holders of CP's and owners no longer on the air; stations linked with radio operations, and stations standing alone; companies in the black and in the red; stations with and without network affiliations.

The "hometown" in our title, I think, has been very well defined in this morning's testimony by the five witnesses who preceded me.

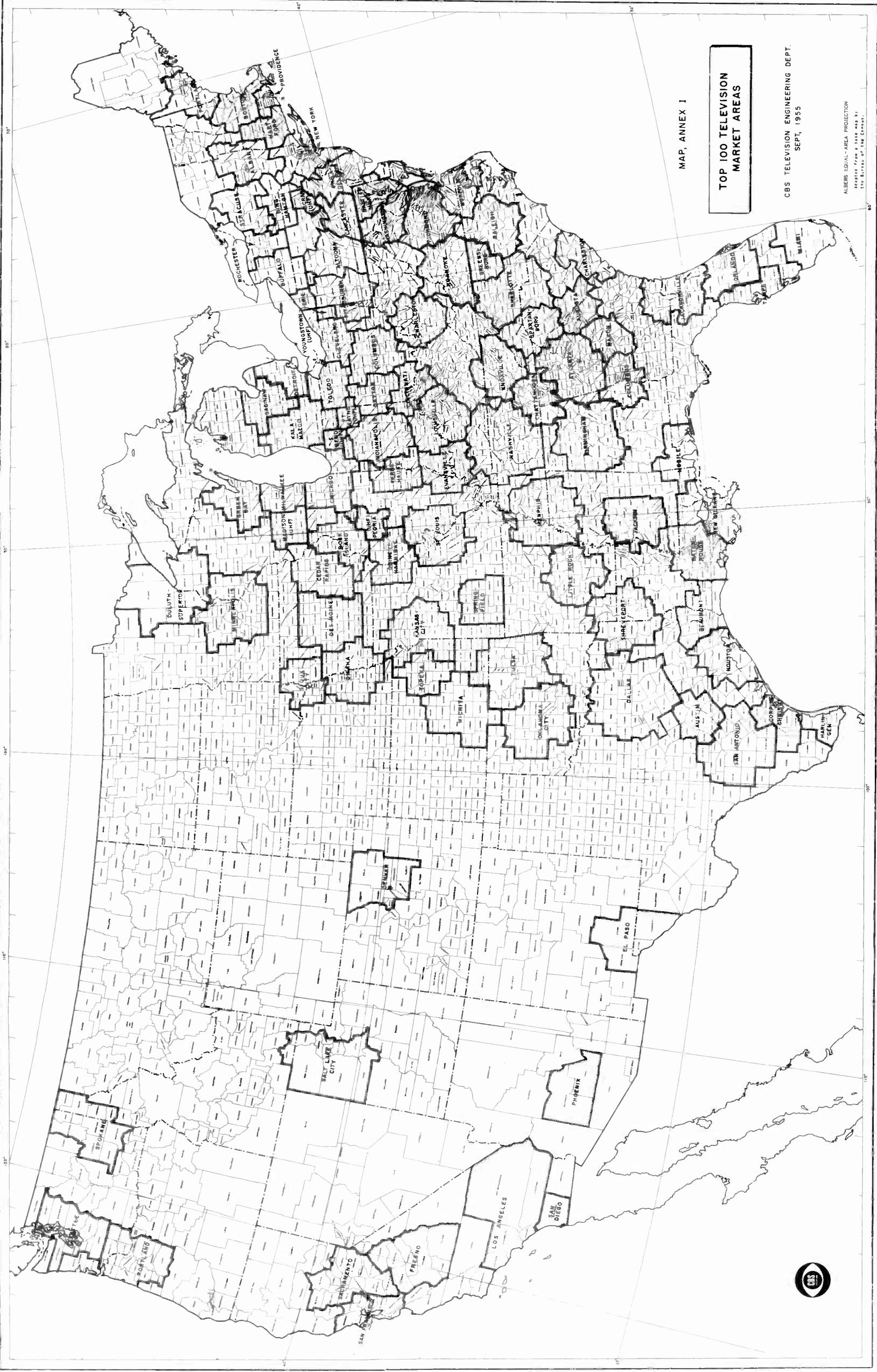
The one tie that binds us all together is this: We are all convinced that our national television system has now reached the point of no return.

What you gentlemen, the Congress as a whole, and the FCC make of our TV system this year will be its pattern for good. Later on there will be no chance to go back and reconsider the decisions of 1956, no use in "taking another look."

Pleaders for the status quo, and those who counsel us to go slow in making changes in the present setup—these people, whether they know it or not, are freezing our national television system forever in its present form, a form wholly inadequate to our country's needs.

What is that form? What are the chief characteristics of our present national television allocation system? Are they so bad, really?

The dominant fact about United States television today is quickly told: Only 295 communities have their own television facility. And



MAP, ANNEX I

**TOP 100 TELEVISION
MARKET AREAS**

CBS TELEVISION ENGINEERING DEPT.
SEPT. 1955

ALBERS EQUAL-AREA PROJECTION
BASED ON DATA FROM THE
BUREAU OF THE CENSUS



for technical reasons which I will explore later, there is very general agreement that under our present allocations system, no more than 350 of our communities can ever have television facilities of their own.

For instance, only about 30 stations are presently scheduled to begin operation in 1956. In analyzing with the experts here in the last few days, we have changed the figure from 8 to 30; some 6 have been already authorized in 1956, and it would appear that about 25 more would be expected to go on the air in the balance of the year if nothing is done to change the present allocations setup.

Compare this with approximately 1,400 communities which do have their own daily newspaper, and with approximately 1,700 which do have their own radio station. Put another way, some 1,500 communities with populations of 2,500 and over would be barred for good from having TV stations of their own.

I think you will agree that this represents a disgraceful dead-end for what is without question the greatest means of communication yet to be developed. Imagine a regulatory system which limited motion-picture houses to 350 communities, or permitted railroad depots in only 350 towns.

But if that seems incredible, let me point out to you gentlemen that there are today people, both in and out of our own industry, who are prepared to settle for television in a mere 100 communities—and as of now they seem in a fair way to prevail. In this connection may I invite your attention to the comments recently filed with the FCC by the Columbia Broadcasting System.

You have before you this chart showing what CBS proposes as a national television system. You will note that in all of New England, CBS proposes that there be stations in Hartford, Providence, Boston, and Portland, Maine. In your own areas of the United States you can see what CBS proposes for you.

(The map referred to appears facing this page.)

I have mentioned only New England because that is the particular section that our committee is dealing with at this time.

I think this document of CBS is quite important in view of the question you, Mr. Chairman, asked the FCC, who were assembled here en banc last week, whether the story presented in Broadcasting-Telecasting that the chief interest of the Commissioners, after returning from their conversations with the networks in New York, was that there be 3 stations in each of the first 100 communities of the United States.

That indicates to me that the thinking in the Commission is in very close coherence with the proposition made by CBS that the television system of the United States be frozen in 100 markets.

It is not simply that CBS, in their presentation, has said that there should be 3 comparable stations, mostly VHF, in the leading 100 markets. But if you give them this, if you let them have it, then you are going to freeze out every other television station in every community that is not in those 100 markets; and that will be the end of your television system for the United States.

This CBS map I have used illustrates the operation of its plan for limiting television to the 100 major markets.

Since the preservation of the 1955 status quo appears to have strong support inside the FCC itself, their justification for this stand needs some attention. In very brief, it goes like this:

Premise 1: It is regrettable that we may have television stations in only 295 communities, but not too important because nearly everybody in the communities in between will be able to tune in one of the out-of-town stations.

Premise 2: Anyway, at this late date, to make it possible to have stations in more than 295 communities would be inconvenient to lots of people.

An examination of the main premise of the proponents of the status quo takes us right to the heart of the matter. In effect they say: It is not very important as national policy whether a TV viewer gets his program from his own community station or from some out-of-town station.

If we could agree to that premise, then, in fact, there would be very little urgency in these hearings, certainly not so much as recently produced over 350 statements to the FCC on the future of allocations.

What good is a television station to a community? Some of our local people felt so strongly about that they came down here this morning to tell you what good it was to the community.

Well, it provides a forum for local politics; an outlet for local fund raising, for the dissemination of local news, a medium for local advertisers, a channel for civic education, for the encouragement of civic enterprises.

Without a local station, for instance, a local viewer may—and frequently does—watch the political campaign of a man for whom he cannot vote while the local candidate must remain invisible. He may be—and frequently is—urged to contribute to another community's charities while his local organization goes poor.

Again, consider the plight of the local merchant. Without a television station in town, he cannot use the medium for advertising, because, of course, he cannot afford to go to the wide-coverage, out-of-town station.

This is too bad, but not really so serious. What is serious is that the local merchant's competitor, the chain outlet, having stores in communities all through the area can—and does—afford plenty of time on that wide-coverage, out-of-town station.

Thus we enter on that old and vicious cycle where the big get bigger and the smaller go under. And as any student of urban growth can testify, one result of this cycle is to orient the consumer toward the big city at the expense of his own hometown community.

For illustration, refer to the community of Bridgeport, Conn., during October–November 1955. In Greater Bridgeport, the retail trading area of that city, live nearly 300,000 people. Since reception from New York is splendid, Bridgeport viewers during that period were able to watch such imports as *Lassie*, the \$64,000 *Question, Person to Person*, and New York weather reports.

Meanwhile, however, these Bridgeporters were completely blacked out on television from such events as the worst flood in local history, the annual United Fund Drive—which fell 40 percent behind its goal, the biennial mayoralty election, the special session of the Connecticut Legislature, and the University of Bridgeport's football season.

Thus, so far as Bridgeporters are concerned, television is no more than the importer of secondhand goods. As of 1955, television has done nothing to serve the interests, meet the problems, or come to the aid of the people of Bridgeport. The question must be asked: How can this happen in a system of allocation and licensing based upon the statutory public-interest standard?

But the total good to the community is more than the sum of such services as I have just enumerated. Since the trial of John Peter Zenger in 1735, this country has recognized the intimate connection between communication and the practice of democracy. Facts are the currency of our freedom, and as the most immediate and vivid purveyor of facts ever devised, television can be withheld from America's hometowns only at our own peril.

But that's not all. There is the reverse of the coin. A television system limited to 295 communities must inevitably result in placing the whole system in the control of a monopoly. If this seems an extravagant statement, may I refer you once again to the CBS statement I mentioned before.

There you will find blueprinted the few easy steps by which our national television system can be reduced to 3 network stations on each of 100 communities. The steps are few and easy because the present FCC policy has brought us today so perilously close to that very pass; very little remains to be done.

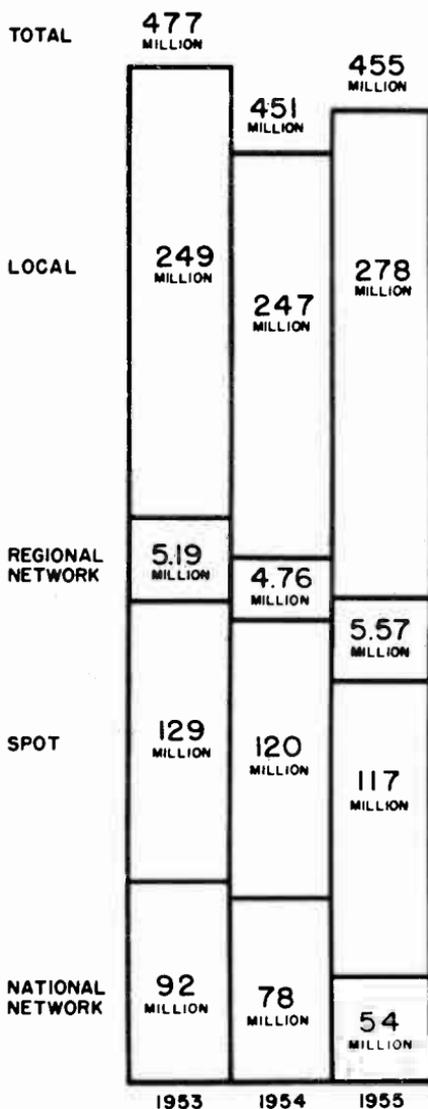
The boldness of the CBS plan makes you gasp. They are asking for one-third of the total television pie of the United States, and they want you to freeze it so that there can never develop the abilities of television as a whole force.

Over the long pull, considerations such as these have a way of asserting themselves and proving out, and the primacy of the community is no exception. Let me show you the record.

Here is a chart showing the sources of income for all radio stations in the United States for the last 3 years; that is, for 1953, 1954, and 1955. You will notice that radio gets income from local sales, from network sales, and from national spot sales. ("National spot sales" are commercial announcements placed directly with the local station, without the intervention of the network.)

A DIP & A RISE

RADIO'S TOTAL NET TIME SALES, AFTER AN ALLTIME HIGH IN 1953, SAGGED SLIGHTLY IN 1954 BUT RALLIED LAST YEAR TO RECOUP SOME LOSSES.



Look at the bottom, in the national network segment. See how in 1953 radio stations of the United States sold \$92 million worth of network time; how in 1954 that figure dropped to \$78 million; and in 1955, to \$54 million, showing without question how the influence of the network on radio is rapidly passing out.

After more than 30 years of development, the radio system is finally coming to the point where it is meeting the goal, that was set for it in the beginning, of serving the local advertiser, the local community.

You will see this by looking at the top at the section marked "Local." While the network was going down, in 1953 we had \$249 million in local sales. In 1954 it went down a little bit to \$247 million—practically no difference. But in 1955 it climbed back up to \$278 million.

You see, of course, the regional network, which is of comparatively no importance in the picture. What you see here is the evidence of a long-term curve—a curve representing the importance of networks in radio, a curve going continuously downward. At the same time, the relative importance of local business, of hometown accounts, is going up and up. Radio has been an operative commercial force in the United States for 34 years. As it now approaches maturity, we can perceive its true place in the community—it is obviously a local institution, a community force.

Let you think this is a fortuitous conclusion, look if you will at this chart, which shows the sources of income for all newspapers in the United States. Here we are looking at the fruits of an evolution which antedates our Republic. Newspapers were published in this country well over 200 years ago. And today, it is patent that this medium finds its true role, its revenue, and its power as a local force, a community force.

(The chart will be found in the official files of the committee.)

There is no network in newspapers. As I said before, I think we are reaching the point where we will not have network in radio. I expect any time to see some entrepreneur come up with a plan whereby the national programs suitable for local broadcasting by radio stations will be furnished to us much in the same manner as we now buy news from the Associated Press or the United Press.

I think you gentlemen will agree with me that this demonstration of the overriding importance of the hometown in communications is no accident. Rather it is the assertion of a truth of which we are all aware: In a democracy, the closer we can get to the needs and aspirations of the individual, the firmer the ground on which we stand.

Finally, here is a chart showing the sources of income for radio as compared to television—television, the golden baby of communications. In its 10th year, television shows network income in the ascendancy, and going up all the time. But let me suggest to you that this curve is definitely not the curve on which to pin a long-term national policy. In its 10th year television shows the same pattern as did radio a quarter of a century ago; and I have no doubt that there was a day when newspaper revenue showed the same picture.

(The chart will be found in the official files of the committee.)

But to conclude that television is somehow to grow up to be the exception to this rule of history is both unwarranted and dangerous. Unwarranted, because all the facts—including my appearance here today—insist that the needs of the community must assert themselves over the long, or policy, run. Dangerous, because considerations based on the kind of country we want to build insist on reserving to the local citizen the basic use and control of his means of community communication. To ignore these factors, it seems to me, is to invite correction—and criticism—and in the very near future, at that.

The broad perspectives of history—and here we have only to go back to the last world war—show very clearly the great dangers inherent in any monopoly of the means of national communication. While I am not for a moment suggesting that the gentlemen in charge of our TV networks have any intention of placing our television system in jeopardy, I cannot refrain from making the point that their plans would unwittingly turn our feet down a perilous path.

From these considerations, I think it is fair to conclude that the limitation of television to 350 communities is a great deal more than “unfortunate” or “regrettable.” Viewed as the result of a national policy, such a hamstringing of a great national asset is no less than catastrophic.

I have said that our national television system is at the point of no return, that there will be no chance later to remedy the mistakes of 1956 with the aid of hindsight. I have based my argument on the contention that under our present system no more than 350 communities can have their own television facilities. I would like to examine briefly the facts that make this so.

Previous testimony before you has explored the matter of incompatibility, that is, the impossibility of operating both UHF and VHF stations in the same area. Let me make here just two points on the subject of incompatibility. First, we cannot operate VHF stations under present FCC standards in more than about 350 communities. Second, if we are to raise our sights above that figure, we must resort to VHF drop-ins and ultimately to the UHF station. A revitalized UHF can supply us with television in approximately as many communities as now enjoy radio.

What has happened under the FCC's present policy is quite simply that the VHF stations have been allowed to crowd the UHF stations off the air and off the map, and out of business.

Thus we can make a simple equation: If we want a national television system able to serve our democratic tradition, then we must make wide use of UHF. Therefore, the problem faced by you gentlemen, by the FCC, and most of all by the station operators, comes down to this: How can we make United States television possible for the UHF operator?

Just how impossible UHF operation now is can readily be deduced from some vital statistics:

Since 1952, the total of UHF stations forced out of business is 56; 21 quit in 1955.

Of the 95 UHF commercial stations now in operation, about four-fifths are operating at a loss. A mere 18 are profitable.

One hundred and eleven recipients of construction permits for UHF stations have relinquished them. One hundred and four have construction permits but are sitting on them.

These statistics tell a plain story: UHF in the United States today is nearly dead. What's more, the impressive piles of financial wreckage that now cover the UHF landscape make it highly unlikely that any new capital for UHF will appear on the scene, now or ever—unless something is done about UHF right now, before the 95 stations still operating go under.

Just how urgent this situation is may be seen in the fact that in the last 90 days, 6 more UHF stations went off the air.

After all, neither you gentlemen nor the FCC can simply legislate new UHF stations into being. For every station there has to be a group of businessmen willing to risk their capital in what they consider to be a sound investment; and in the context we are discussing here, these businessmen have to be local businessmen, that is, investors, with limited funds. You can spread just so much business failure on the UHF record, and then these potential investors will turn their backs for good on TV as an investment possibility.

I think you will agree with me that investment in UHF operation has now been brought by FCC policy—or lack of it—very close to the untouchable class. This progress of UHF to the brink of extinction comes as no particular surprise; it had been widely anticipated among UHF operators for some time. In fact, it was just about 2 years ago that I testified before this same committee on this same topic, and made the point that immediate help was needed. Since then the FCC—far from extending us a helping hand—has made it even more difficult for the UHF station to survive.

This is all by way of enlarging on a statement with which I began my testimony here today: This is television's year of decision, and failure to act now on behalf of UHF will foreclose the possibility of any future resurrection.

Now, I have spoken several times of the need for helping the UHF operations, and I wish to make clear to you that what we seek is neither some sort of Federal bounty nor any special legislative dispensations. What we seek now is no more and no less than what the Congress has told the FCC to provide: "A fair, efficient, and equitable distribution of * * * service * * *." In implementing this congressional mandate, the FCC set up two main priorities for the granting of TV licenses:

First, to get some sort of TV signal to everybody.

Second, to put a TV station in every community.

The FCC got these priorities into print, but that is about as far as they went. Some time ago better than 80 percent of our population were able to get some TV signal, and at this point the FCC came to a dead stop. Progress registered toward Priority 2—a TV station in every community—has been virtually nil. The record of the FCC's failure is spread in their files, and in the briefs filed last December 15 with the Commission by TV operators. The story told there is complete, convincing—and disastrous. For as good a summary as any may I refer you to the statement filed by our own Committee for Hometown Television with the FCC in these proceedings.

At this point, Mr. Chairman, I would like to ask that this statement be incorporated into the record.

The CHAIRMAN. All right, it will be incorporated.

(The statement incorporated is as follows:)

THE COMMITTEE FOR HOMETOWN TELEVISION, INC.

Chairman: Charles DeRose, WHYN-TV
 President: Philip Merryman, WICC-TV
 Treasurer: Edward Taddei, WNHC-TV
 Box 9140
 Bridgeport, Conn.
 Tel. Amherst 8-1601

The Committee for Hometown Television, Inc. has been organized by a group of TV station owners to defend the proposition that every community has the right to a local TV outlet able to provide that community with a local outlet for its own news, politics, charitable, and social and educational undertakings.

This right to hometown television was granted by Congress, reaffirmed by the Federal Communications Commission—and stands today on the brink of extinction.

In November 1955, the FCC acknowledged the imminent danger to hometown television, and invited industry comment. Following is the statement of this committee, filed December 9, 1955, in response to the FCC's request.

We urge you to read it carefully because—

This statement makes the case for the consumer the people's case.

This statement stands in opposition to the network presentation made by CBS, whose case is monopoly's case.

Survival of the principle of hometown television demands wide and immediate support.

On December 15, 1955, the FCC began deliberations which will determine without chance of recall or revision what television is to mean to the United States, whether—

United States television is to become the degraded carrier for network monopolies, or the servant of all the people.

This is your brief.

PHILIP MERRYMAN.

For this committee's articles of association and bylaws see pages 460-461.

THE CASE FOR HOMETOWN TELEVISION

These documents are filed by the Committee for Hometown Television, Inc., a nonprofit organization incorporated under the laws of Connecticut. Among the purposes of the organization as stated in the articles of association are the following:

- (a) To promote and support the development of hometown television stations.
- (b) To study and support means for the furtherance of hometown television as a public community service.

The committee presently comprises a group of television stations in New England, organized to defend the proposition that the primary function of a television station is to serve its community. Its membership is open to UHF and VHF stations alike and, in addition, to other persons interested in preserving to the various communities in the United States the maximum opportunity of having their own television stations to serve as outlets for local self-expression.

I. HOMETOWN TELEVISION DEFINED

1. Hometown television connotes the well-established principle—both in the allocation and licensing of communications facilities—that the various cities, towns, and communities in the United States need, and are entitled to have, local radio and television facilities to serve as outlets for local self-expression, and to provide the means for bringing local news, information, intelligence, culture, and entertainment to the residents of such communities.

2. The ability of communities to have their own television stations is important because television stations, like radio stations and newspapers, not only are means for bringing news, entertainment, and culture to the people, but they also serve as outlets for local self-expression. While programs from a distant radio or television station or features in the metropolitan daily are able to keep the people up to date on national and world affairs, only by having their own stations or newspapers can local communities be assured that local issues will get

an airing and that the local citizenry will have an opportunity to have matters of strictly local concern brought to the attention of the public.

3. For illustration, refer to the community of Bridgeport, Conn., during October–November 1955. In greater Bridgeport—the retail trading area of that city—live 49,000 families. Since reception from New York is splendid, Bridgeport viewers during that period were able to watch such imports as *Lassie*, the \$64,000 Question, Person-to-Person, and New York weather reports.

4. Meanwhile, however, these Bridgeporters were completely blacked out on television from such events as the worst flood in local history; the annual United Fund drive (which fell 40 percent behind its goal); the biennial mayoralty election; the special session of the Connecticut Legislature; and the University of Bridgeport's football season.¹

5. Thus, so far as Bridgeporters are concerned, television is no more than the importer of secondhand goods. As of 1955, television has done nothing to serve the interests, meet the problems, or come to the aid of the people of Bridgeport. This is the plight of hometown television today—not only Bridgeport—but in numerous communities throughout the Nation which lie in the shadow of the wide-coverage VHF stations: One might well question how this could occur in a system of allocation and licensing based upon the statutory public interest standard. We turn to an examination of the history of the hometown television concept and the manner in which its development has been thwarted.

A. Legislative origins

6. The concept underlying hometown television is a basic one finding its roots in the early Radio Act of 1927 wherein² the Congress declared:

"* * * the people of all the zones established by section 2 of this Act are entitled to equality of radio broadcasting service, both of transmission and of reception, and in order to provide said equality the licensing authority shall as nearly as possible make and maintain an equal allocation of broadcasting licenses, of bands of frequency or wavelengths, of periods of time for operation, and of station power, to each of said zones when and insofar as there are applications therefor: and shall make a fair and equitable allocation of licenses, wavelengths, time for operation, and station power to each of the States, the District of Columbia, the Territories and possessions of the United States within each zone, according to population. * * *"

7. The above language was carried over to the Communications Act of 1934 as section 307 (b) which, as amended in 1936, reads as follows:

"In considering applications for licenses, and modifications and renewals thereof, when and insofar as there is demand for the same, the Commission shall make such distribution of licenses, frequencies, hours of operation, and of power among the several States and communities as to provide a fair, efficient, and equitable distribution of radio service to each of the same."³

8. The congressional mandates here set forth have repeatedly been implemented by the Commission in its licensing and regulation of AM broadcasting. In literally scores of cases the concept of providing a community with its first or second local outlet for self-expression has been the articulate premise upon which a choice has been made between qualified applicants.

B. Administrative precedents

9. When television came of age, it was this same principle that dominated the basic structure of the Commission's allocation thinking. After "freezing" action upon new and pending applications in 1948, the Commission on March 22, 1951, issued its third notice of further proposed rulemaking (FCC 51-244) proposing a new table of assignments which, it said:

"* * * endeavored to meet the twofold objective set forth in sections 1 and 307 (b) of the Communications Act of 1934, to provide television service, as far as possible to all people of the United States and to provide a fair, efficient, and

¹ By contrast, Bridgeport's radio station WICC devoted 3 full days and nights to informing and helping the area during the floods; 5 weeks of continuous information about, and promotion of the United Fund campaign; night and day coverage and speechmaking for the elections; daily summaries of the special legislative session; and, of course, complete local football coverage.

² Radio Act of 1927, ch. 169, sec. 9, 44 Stat. 1166, as amended March 28, 1928, ch. 263, sec. 3, 45 Stat. 373, repealed by act of June 19, 1934, ch. 652, sec. 602 (a), 48 Stat. 1102; U. S. C. A., title 47, sec. 89, 1 RR 20:17.

³ Communications Act of 1934, ch. 652, sec. 307 (b), 48 Stat. 1083, as amended June 5, 1936, ch. 511, sec. 2, 49 Stat. 1475; July 16, 1952, ch. 873, sec. 5, 66 Stat. 714; U. S. C. A., title 47, sec. 307 (b); 1 RR 10:85.

equitable distribution of television broadcast stations *to the several States and communities.*" [Emphasis supplied.]

10. To implement these objectives the Commission in its third notice adopted five priorities, as follows:

"Priority No. 1: To provide at least one television service to all parts of the United States.

"Priority No. 2: To provide each community with at least one television broadcast station.

"Priority No. 3: To provide a choice of at least two television services to all parts of the United States.

"Priority No. 4: To provide each community with at least two television broadcast stations.

"Priority No. 5: Any channels which remain unassigned to the various communities depending on the size of the population of each community, the geographical location of such community, and the number of television services available to such community from television stations located in other communities."

Note that priorities 2, 4, and 5 are all designed to provide one or more local television stations within each community of the United States.

11. Thereafter, in its sixth report and order,⁴ in April of 1952, lifting the so-called freeze, the Commission reiterated its five priorities (par. 63 of sixth report) and, in discussing the general considerations underlying its adoption of the new table of assignments, concluded that the standards set forth in sections 1 and 307 (b) of the act could best be achieved by the adoption of the table because:

"A table of assignments makes for the most efficient technical use of the relatively limited number of channels available for the television service. It *protects the interests of the public residing in smaller cities and rural areas more adequately than any other system for distribution of service* and affords the most effective mechanism for providing for noncommercial educational television * * *" (par. 13, sixth report). [Emphasis supplied.]

12. The Commission likewise recognized that the table of assignments, based upon the aforementioned priorities, was necessary to protect the ultimate future demand for local stations by smaller communities. In paragraph 15 of the sixth report the point was stated thus:

"15. In our opinion there is an equally significant reason why a table of assignments should be established in our rules. For while the record in this proceeding demonstrates that the desire for broadcasting service from local stations, reflecting local needs and interest is widespread, experience has shown that many of the communities which cannot now support television stations but would eventually be able to do so, will in the absence of a fixed reservation of channels for their use, find that available frequencies have been preempted. * * *"

13. Later in the sixth report (par. 67) the Commission described its proposed allocation of UHF channels as implementing the priorities in the following manner:

"The assignment plan for UHF channels was coordinated with and made complementary to the VHF assignment plan. The Commission has always recognized that even with an extensive scattering of VHF assignments, the 12 channels available are not sufficient to meet the objective of providing television service to all the people. With the additional UHF channels, however, the Commission was able to formulate an assignment plan that has the potentiality of fulfilling the objective of section 1 of the Communications Act. If all the VHF and UHF channels are utilized, there should be few, if any, people of the United States residing beyond the areas of television service. (See priorities 1 and 3.) Moreover the table has gone far in fulfilling the needs of individual communities to obtain local television outlets. It has provided at least 1 assignment to over 1,250 communities. (See priority 2.) And it has attempted where possible to provide each community with at least two assignments. (See priority 4.3.)"

14. And, in discarding a DuMont proposal that the smaller communities should depend on the larger ones for service, the Commission forcefully recognized the importance of community-hometown television in these words (pars. 78, 79, and 81, sixth report):

"78. A second policy difference between the DuMont and Commission assignment plans lies in their contrasting views with respect to the importance of indi-

⁴ Sixth report and order in FCC Docket No. 8736 et al., *In the Matter of the Amendment of Section 3.606 of the Commission's Rules and Regulations, etc.*, adopted Apr. 11, 1952, 1 RR 91: 599.

vidual communities having television assignments. The DuMont view is that emphasis should be placed on locating the assignments, particularly VHF channels, so that the largest number of people will have television service but not necessarily that the largest number of communities should have one or more television stations of their own. This view derives from DuMont's premise that the major cities with their large populations are certain to be able to support expensive television facilities, and that smaller communities which are within appropriate range of these cities should obtain service from stations in the large cities, rather than attempt to support stations with their own less substantial economic resources.

"79. The Commission, on the other hand, believes that on the basis of the Communications Act it must recognize the importance of making it possible with any table of assignments for a large number of communities to obtain television assignments of their own. In the Commission's views as many communities as possible should have the opportunity of enjoying the advantages that derive from having local outlets that will be responsive to local needs. We believe with respect to the economic ability of the smaller communities to support television stations that it is not unreasonable to assume that enterprising individuals will come forward in such communities who will find the means of financing a television operation. The television are is relatively new and opportunity undoubtedly exists for initiating various methods of reducing television costs.

* * * * *

"81. The Commission finds that the principles of assignment which DuMont advocates are inadequate in that these principles do not recognize specifically the need to provide an equitable apportionment of channels among the separate States and communities and they do not provide adequately for the educational needs of the primarily educational centers."

15. Thus, as of April of 1952, when the freeze was lifted and the television industry received the green light from the Commission to implement its new table of assignments by the application process, hometown television was clearly recognized as of paramount importance in the future development of television as, indeed, was required by the Commission's statutory mandates and its basic public interest standard.

C. Commission policy

16. But what has the Commission done since 1952 to implement priority 2? Some time ago the FCC reached an estimated 90 percent of its goal for the first of its priorities: about that much of our population is now within reach of some TV signal. And at this point the FCC came to a dead stop. Progress registered toward priority 2 has been virtually nil. Indeed, it has become obvious that the FCC, far from proceeding with priority 2, has been running backward, kidnapping hometown television as it fled.

17. For, despite the high priority assigned by the Commission to providing local television stations for each community, hometown television, after but 3 short years of experience since the lifting of the freeze finds itself in many important quarters of the Nation to be the stepchild of the Commission and of the television industry. Far from the confident predictions that within a short time after the full-scale advent of television 1,500 to 2,000 television stations would be on the air, the Nation finds itself, almost 10 years after the Commission began licensing television stations, with only 452 stations in 274 separate communities. As was pointed out by Chairman McConaughy in his November 28 address before the Baseball Leagues Convention in Columbus, Ohio, the stations now on the air "represent fewer than 1 out of every 4 channel assignments which were made available by the Commission in 1952."

18. Moreover, in the absence of immediate and forthright remedial action, it is difficult to see how in the foreseeable future it will be possible to see have more than 75 additional outlets. Thus, in the absence of imaginative and bold steps by the Commission, television will be confined, for a long time to come, to the large cities, and all other communities will have to get along without their own hometown television stations. Any remedy for hometown television must, of necessity, come to grips with the problems of UHF, for the two are dependent and interrelated in their problems. The paragraphs to follow will discuss the part played by UHF in the hometown television problem.

II. HOMETOWN TV AND UHF

19. The role of UHF in hometown television is defined by the fact that it is possible to operate many more UHF than VHF stations in a given area. Consequently UHF is indispensable to hometown coverage; and although expediency has so far caused the UHF stations to be virtually ignored, prudent national policy will depend on them more and more as the indispensable vehicle for hometown television.

20. The reasons for the current plight of hometown television can be found (a) in the difficulties confronting UHF and (b) in the policies followed by the Commission with respect to UHF and other matters as will be hereinafter detailed.

21. UHF television has been authorized only since 1952. Before that only VHF stations were in existence. VHF had a 6-year head start on UHF. Before a single UHF station was authorized there were already 108 VHF stations in operation in 63 different cities containing about two-thirds of the entire population in the United States. More than 17 million VHF sets had already been sold before a single UHF station was authorized and not 1 of these sets could receive UHF programs. Nor did the opening of the UHF band improve the receiver situation. For it was based upon the monumental miscalculation that once the bands were opened, the set manufacturers would all produce all-channel sets capable of receiving both VHF and UHF signals. That the manufacturers did no such thing is now notorious. Finally, the existing VHF stations had affiliations with the networks; and UHF stations, because of their obvious inferior state, have been unable to secure such affiliations. Without network programs it is extremely difficult if not impossible for a television station to survive. Because of these miscalculations and the resulting economic ills of life, UHF stations in most markets were rendered obsolete almost before they opened.

A. FCC power policies

22. But the difficulties surrounding UHF afford only part of the answer for the small number of hometown television stations in existence today. Commission policies on maximum power also must bear a large share of the blame. Until 1952 VHF stations were limited to maximum power of 50 kilowatts at 500 feet. Stations with higher antennas were required to reduce power proportionately. In 1952 the Commission amended its rules so as to raise the maximum. For stations operating on VHF channels 2-6 the maximum was increased to 100 kilowatts at 1,000 feet, and for stations operating on VHF channels 7-13 the maximum was increased to 316 kilowatts at 1,000 feet.⁵

23. In assessing the impact of the power problem on hometown television it must be remembered that the 108 VHF stations are for the most part located in the large metropolitan centers and enjoy affiliations with the dominant networks—the lifeblood of television operations. New stations have to depend on their ability to acquire network programs which in turn depends on their ability to deliver unduplicated coverage. Obviously the networks are not interested in acquiring new affiliates if their service area is already largely served by an existing affiliate.

24. The following mileage table shows how the increase in power adversely affected the ability of many stations to acquire network programs:

[In miles]

Channel number	Grade A pre-1952	Grade B pre-1952	Grade A 1952	Grade B 1952
2 to 6.....	23	52	37	70
7 to 13.....	24	43	46	63

In other words, under the old maximum a community located, for example, 35 or 45 miles from a metropolitan center had every reasonable prospect of having its station acquire a network affiliation with which to support itself. Under the new 1952 maximum the prospects for network affiliation became very slim because too much overlap is involved, a much greater separation appearing to be necessary. Since cities in the Northeastern United States are placed close together, the 1952 maximum in power has very substantially adversely affected

⁵ This is the limitation for zone I which includes the populous Northeastern United States. Higher antennas were permitted in other zones.

the ability of stations in many sizable communities to acquire network affiliations.⁶

25. The stifling effect of the Commission's tower and power policies on the development of hometown television is vividly revealed by the experience of New Jersey and Connecticut. In the whole State of New Jersey there is not a single operating television station at the present time.⁷ Yet that State is able to support 30 radio stations. The reason for New Jersey being a television desert is that practically all of the population residing in New Jersey are within the range of the superpowered stations located either in New York or Pennsylvania.

26. Thus, when candidates for public office in New Jersey want to use television, they must go either to New York City or Philadelphia stations in order to reach their home constituencies. And in so doing, they must pay for coverage in New York State and Pennsylvania, which is of no earthly use to them in New Jersey. Moreover, if the citizens of Trenton, Passaic, New Brunswick, or any of the other New Jersey communities desire to have local issues aired on television stations, they must be able to convince the large metropolitan stations in New York and Philadelphia that the issues are of sufficient interest to their viewers to warrant carrying the programs.

27. The situation in Connecticut is scarcely better. Thirteen commercial channels are assigned to nine cities in Connecticut. However, lying between the powerful stations of New York, Providence, and Boston, only 5 stations are in operation in Connecticut at the present time, and all but 1 or 2 of them are having very great difficulty in surviving. This is in sharp contrast to the 31 radio stations operating in that State. In Massachusetts, 25 channels are assigned for use in 14 communities. Yet only 1 educational and 6 commercial stations are in operation, and 4 of these are in the metropolitan center of Boston-Cambridge. In radio Massachusetts has 73 stations.

28. The operators of UHF stations have attempted to secure relief but have had no success. The trade organization—dominated by the networks and the successful VHF stations—has done nothing to aid the cause of hometown television. The UHF stations organized last summer and made a strong presentation of their case to Congress. The FCC appeared to be sufficiently moved by the desperate straits of these operators to schedule an oral argument on a series of deintermixture petitions designed to alleviate the UHF problem. Although the FCC indicated that the matter had a high priority, it failed to take any action before beginning its long summer recess in July. It has since denied them, postponing their consideration for the instant rulemaking proceedings.

29. This attitude is in sharp contrast to the Commission's action in two other areas—areas which will help television in metropolitan areas at the expense of hometown television. The first of these moves relates to another increase in power for VHF stations in the northeastern part of the United States. Just before the long summer recess began, the Commission adopted an order which would increase power of VHF stations in zone I to 100 kilowatts at 1,250 feet for stations on channels 2 to 6 and to 316 kilowatts at 1,250 feet for stations on channels 7 to 13. This would mean that stations without antennas higher than 1,000 feet could increase their power in many cases more than twofold, and extend their service areas by 4 or 5 miles. In particular, all 7 stations on the Empire State Building could increase their power: in the case of 6 of the stations the increase in power would be more than twofold.

30. The impact of such an increase in power on television in Connecticut and New Jersey is obvious. For illustration, consider the effect of such a rule upon WNHC-TV, a VHF station serving New Haven, Conn. WNHC-TV, as a VHF station, had no conversion problem and no audience problem such as plague its UHF counterparts. It enjoyed an NBC affiliation. When the FCC asked for comments on a proposal to increase tower heights in zone 1, NBC got the point right away. In January it purchased WKNB in New Britain, Conn. In the latter part of June it gave notice of cancellation of its network contract to WNHC-TV, New Haven, and announced that henceforth WRCA-TV, New York, would give New Haven "coverage" to its advertisers. On July 20, sure enough, the FCC ruled that the maximum tower height in zone 1 could be increased to 1,250 feet.

⁶ Although the increase in power mainly affected UHF stations, VHF stations in smaller communities were also affected since they also must rely on network programs and their proximity to metropolitan areas adversely affects their ability to secure network programs.

⁷ Station WATV is technically licensed to Newark but in practice it is a New York station since it is 1 of the 7 stations operating from the Empire State Building in New York.

31. To WNHC-TV, New Haven's hometown station, this meant that, thanks to this extraordinary action by the FCC, it would henceforth (a) be deprived of NBC network income; and (b) have to compete with a new station (WRCA-TV) which contributed absolutely nothing to New Haven as a community. A severe blow had been dealt not only to WNHC-TV but to the public of New Haven where the integrity of, and community benefits from, hometown television were scuttled.⁸

B. Superstations and satellites

32. Another FCC move that can have disastrous consequences so far as the fate of hometown television is concerned is the Commission's rulemaking proposal to increase maximum UHF power to 5 million watts. The cost of transmitters capable of producing 5 million watts is exceedingly high and only the large cities can possibly support such power. If this rule goes into effect, it will accelerate the tendency to center television in the large cities at the expense of small community operation.

33. Equally disastrous is the Commission's sanction of satellite operations for both VHF and UHF stations. Announced as a policy matter in a public notice of August 5, 1954 (FCC 54-991), the Commission stated that it would consider applications for UHF stations which did not propose to originate any local programs, where it appears that the economies of such operations would render feasible a station in a community where one might otherwise not be built. Although the policy specifically referred to UHF stations, applications have also been entertained and granted for the satellite operation of VHF stations. (See e. g., Lufkin-Houston, Tex., VHF satellite grant.)⁹

34. It is thus apparent that while the Commission has expressed great and continuing concern for the plight of UHF and hometown television, its proposals and actions have served to solidify and indeed magnify the already desperate situation in which UHF and hometown television find themselves. But even more alarming is the prospect that the Commission may take action on proposals which could forever deprive America's hometowns of their own television facilities. Several of the proposals which the Commission has had brought before it would undoubtedly reach this result.

III. THE CBS AND MULLANEY PLANS

A. The CBS plan

35. On October 6, 1955, in an extraordinary 2½-hour ex parte meeting with the FCC Commissioners, CBS's Dr. Frank Stanton presented an engineering and economic study designed, he declared, "to provide * * * an allocation under which there could be at least 3 competitive services in each of the 100 leading television markets"—the CBS magic supermarkets. Significantly, he defined the study's second objective as "to avoid * * * dislocations and injuries to existing station licenses." No mention was made of the FCC's priority 2. The study bases itself on two premises:

1. The bigger the area covered by a TV signal, the better the national television system; and

2. The smallest community capable of supporting its own television facility contains 22,000 families, or about 75,000 people.

This rather disingenuous document is significant not so much for what it proposes as for the network intentions it reveals. This intention is nothing less than the complete dismantling of hometown television.

36. The CBS proposal advances two alternative reallocation plants each of which spells the death knell for UHF and hometown television. As noted above, both plans have as their purported goal the establishment of 3 substantially competitive facilities in each of the 100 leading "markets" as defined by CBS.

⁸ While the Commission has recently vacated its July 20 order adopting the increased power and tower height rule for zone 1, its haste and willingness to adopt it in the first instance demonstrates the Commission's penchant for helping the large VHF stations at the expense of hometown television. Moreover, by including the rule as an area of consideration in the broad rulemaking in docket 11532 the proposal still hangs in threat over the heads of UHF and VHF hometown operators (see further report and order in dockets 11181 and 11532 released December 1, 1955).

⁹ A recent Pennsylvania proposal underscores the problem. Broadcasting-Telecasting for October 24, 1955 (p. 80) reports a proposal by WGBI, Scranton, to operate experimentally with 5 megawatts power, feeding network programming to stations in Williamsport and Sunbury on a satellite basis. While the proposal may offer temporary benefit to all three stations and although the satellites will originate some local programs, the long-range effect of a continuing operation of this type will be to stifle the Williamsport and Sunbury operations as independent, local hometown television stations.

These markets are not cities or communities alone but large areas comprised of numerous counties and whose boundaries in some instances cross State lines to include parts of more than one State. The area markets are dominated by 100 large cities to which CBS would in practice, confine all television stations.

37. The CBS plan A purports to provide 3 "substantially equal facilities" to all but 16 of the 100 markets. Plan A would be achieved by abandoning all but a few UHF allocations and by dropping in additional VHF assignments to the major cities from smaller outlying hometown television communities.

38. The CBS plan B would utilize three additional VHF channels by taking them from present uses by other services. The UHF band would be completely abandoned. Under plan B all 100 markets would have 3 or more VHF services. Again, shorter mileage separations, drop-ins, and move-ins, are involved. However, CBS admits that channels could not be provided under plan B for 60 currently operating UHF stations. These would have to be abandoned.

39. CBS endeavors to support its thesis that television stations should be concentrated in the 100 markets by asserting that 85 percent of the families of the United States fall within these markets. This fact, however, does not alleviate the need for or reduce the importance of hometown television. For the 85 percent are by no means located within or indeed in close proximity to the 100 major cities in which CBS would place stations. Rather they are scattered among the many cities and communities—ranging from small to substantial size—which lie within the large "market" areas defined by CBS. Rather they are scattered among the many cities and communities which need and deserve hometown television stations.

40. But the needs of the many small and medium sized communities are of no concern to CBS. The proper area of influence and coverage of the individual station matters not to CBS so long as its network programs reach the eyes and ears of the masses. This attitude completely ignores the vital issue of hometown television and the manner in which it is now smothered under the signals of the powerful VHF stations in the major markets. The optimum size of a station's coverage is, of course, the key question in any allocation system—the very question which has stalled the FCC. But the CBS report smuggles in its answer to this moot question—by disguising it as a premise—"the bigger the better." By so begging the question, Dr. Stanton is able to avoid the awkward task of justifying his theory of coverage; it's just there.

41. It is evident that if the FCC were to follow the CBS plan and equate a station's optimum coverage with its grade B contour at tower height of 1,250 feet and maximum power, then all of New England could be "covered" with signals from four cities. In point of fact, this is precisely what CBS does propose, the four New England cities in its plan being Hartford, Providence, Boston, and Portland; and, by extension, CBS finds that it can "cover" the whole United States from 100 cities.

42. It is evident that such a wide-coverage VHF signal forces the elimination of all UHF signals within its grade B contour; and the scarcity of VHF signals limits additional VHF signals in the same area just as drastically. Therefore the chief consequences of the CBS plan may be stated as an axiom: The wider the coverage, the less the service to the community. For illustration, refer to the fate of Bridgeport and New Haven, cited above. As expressed in terms of the FCC's two top priorities, CBS proposes to overfulfill priority 1 (a TV signal for everybody) by virtually eliminating priority 2 (a TV station for every community).

43. The second CBS premise is no less unusual. With it CBS attempts to bolster its allocation position by the advancement of a gloomy economic prospect for the future of television. Contained in an economic study by Sidney S. Alexander, CBS economic adviser (see text in October 17, 1955, issue of Broadcasting magazine, p. 27), the forecast contends that the country cannot now or in the immediate future support more than 600 television stations, thus denying the possibility of any further technological or economic progress in television. Based upon existing revenues and rates, CBS apparently believes that the status quo will not change and that therefore there is no need to worry about UHF or hometown television because the country cannot support them in any event.

44. By citing the financial status of TV stations in 1954—including those which current FCC policy has rendered in extremis—Dr. Stanton's experts conclude that stations in towns of less than 75,000 are having a hard time. Therefore, they proceed, national long-term policy must be based on the premise

that towns of 75,000 and under are not to have their own television facility—now or ever.

45. But the size of a community is by no means the primary cause for the financial difficulty of its television station. Crossroads aside, the first cause for most financial troubles is not the size of the community served but the nature of the television competition at hand. Today there are communities of less than 75,000 supporting television facilities; and—more to the point—there are many, many communities double and triple that size (e. g., Bridgeport and Worcester) where wide-coverage competition plus UHF signals make a community facility impossible.

46. But certainly there is a minimum size for communities below which a television facility cannot be supported as of 1955—competition or not. This minimum size is a function of the capital cost and operating budget of a minimal television station. The CBS experts assume that these costs—and hence the minimum market's size—will not decrease in the operating future. Such an assumption may appear to be merely silly. But erect on this premise a national allocations system and, technological advances or no, towns below 75,000 won't ever get their hometown stations. For what is planned today in television allocations must, by and large, be planned for good. To erect such a plan on the premise that television's technology is at the end of the road is, to say the very least, irresponsible.

47. Undoubtedly, had the same theoretical and shortsighted techniques been employed in the late thirties, an argument could have been made that the country would support only 800 or 900 radio stations instead of the over 2,500 stations now being supported by our economy. Those entrusted with the public interest cannot afford shortsightedness. Instead, it is their duty to assure that an overall, long-range plan is adopted which will permit the infant television industry to grow and expand and to flex its muscles. There is neither time nor place for the prophets of gloom in the expanding television industry. Instead a sturdy and wide base must be provided upon which to build for the future.

48. The reasons for the crepe-hanging efforts of CBS are not far to seek. With television virtually limited to 3 competitive facilities in each of the 100 markets, CBS can foresee its present dominant network position jelled and set firmly, never to be dislodged by competition. CBS can foresee its network operations—in No. 1 position—covering 97 percent of the families of the Nation from 100 markets with the assurance that competition can only be expected from NBC and the trailing ABC network. By preserving the comfortable status quo, CBS envisions itself as forever protected against the specter of competition from a fourth or fifth network.

49. It is not plausible to suppose that CBS takes its own proposal seriously. But what alarms the Committee for Hometown Television is that, unless the importance of preserving priority 2 is stressed and fully appreciated by the Commission, action may be taken in these proceedings which would give countenance to this shortsighted and wholly self-serving proposal. This is why the committee has found it necessary to band together to remind the Commission of two matters which must not go by the board in any reallocation of facilities; namely, the existence and importance of the FCC's priority 2 and the indispensable and irreplaceable nature of hometown television.

B. The Mullaney plan

50. A second proposal before the Commission is almost equally dangerous to the development of hometown television and to the full growth of a nationwide, competitive system of television. The so-called Mullaney plan, submitted to the Commission in August of 1955 and since supplemented by additional data, provides for at least 3 VHF stations in each of the 100 leading markets by discarding mileage separations and shoehorning VHF assignments into the allocation pattern by directional antennas and limitations upon power and antenna heights. In short, it proposes to convert the television allocation plan to an interference contour protection system as used in AM broadcasting. Under the Mullaney plan the UHF band would be discarded and hometown television would be left to the vagaries of the technical operating characteristics of individual stations. In some cases, local service would no doubt be made possible by the use of low-powered VHF stations of limited coverage, but with consequent loss of service to many who might otherwise receive service if full use were made of the spectrum, including the UHF band. And the Mullaney plan would leave no room for growth. The VHF band cannot possibly provide for a nationwide competitive system of television but the Mullaney plan would confine all television allocations to that band.

IV. THE COMMITTEE'S PLAN

A. *General*

51. Because the Committee for Hometown Television is engaged in the defense of an established FCC policy from attacks by the networks and others, most of the foregoing has had to be framed as "agin" other plans and pronouncements. In the preceding paragraphs we have set forth at length the difficulties which hometown television faces today. A solution is urgently needed. We realize that the problem is complex and that there are no easy solutions. However, a supreme effort must be made. To this end the committee advances a positive program of action designed to help salvage hometown television and the UHF television service.

52. The committee's platform, curiously enough, is original with the Commission rather than with the committee. Both the Congress and the Commission have agreed that it is categorical national policy to assure the future of hometown television (priority 2). To implement this policy, the Commission must restore its priority 2 as a current objective. Specifically, this means that in making its decisions as to allocations the Commission must guide itself by the criterion: Will it further hometown television? This is a criterion dictated by statutory mandate, yet one which the FCC has yet to fulfill. Furthermore, the Commission having ignored this criterion to the point where hometown television is sick, indeed, the Commission must now apply it rigorously, immediately, and, where possible, retroactively.

53. This is the broad perspective. This is the standard which the Commission has espoused in words but ignored in action. For, as has been indicated, the acts of the Commission discourage rather than implement the standard. Thus, if tower heights are to be changed, then they are increased. If UHF stations are to be given more power, then they are given a maximum out of reach of all but the biggest operations. If a coverage area is in dispute, then the dispute is resolved in favor of the bigger station. If New Jersey has no television stations at all, then let it listen to New York and Philadelphia signals. If a network proposes that hometown television be junked, then give it the in-camera attention of the full Commission. It is from this climate that hometown television must be relieved. In the view of the committee a shift in Commission intentions from do-nothing to enforcement would do more to assure its priority 2 than would any other measure.

B. *UHF is necessary for a nationwide competitive system*

54. We believe that it is axiomatic that it is not possible to have a nationwide and competitive system of television if only 12 VHF channels are utilized.

55. We also believe that the additional channels must be those in the UHF band. We are aware that much attention has been devoted to attempts to secure additional VHF channels in an effort to solve the problem. We do not believe that such efforts are the answer to the problem, for four reasons. First, it is very doubtful whether any additional VHF channels can be secured. Second, even if some VHF space is found, it is obvious that the new channels will be few in number and will take care of only a few hardship cases. While solving some hardship cases is a worthy objective, the price would be extremely high. It is inconceivable that enough VHF channels can be found to provide enough facilities for the various communities in the United States.¹⁰ Third, any VHF channels that are found would be incompatible—present receivers could not tune to such channels. The difficulties which incompatible UHF channels have faced in competing with VHF channels would also be encountered by station owners operating an incompatible VHF station in competition with a compatible VHF station. A fourth reason against placing our hopes in additional VHF channels is the substantial loss which would be suffered by that portion of the public which has already paid for UHF service. Many of them would have to pay once more to receive a new incompatible service. Their willingness to do so a second time is bound to be diminished, for how can they have confidence that this new band will not be abandoned at an early date. In sum, it appears to us it will take extraordinary effort to make additional VHF channels work, and at best they will provide only an abbreviated nationwide service. We believe it is much

¹⁰ It should be noted that the entire VHF band extends from 30 to 300 megacycles. Even if all these channels were made available for television they would provide for only 45 channels, 2 fewer than now contained in the present allocation table. Moreover, the frequency range of the band is 10 to 1 which would mean a tremendous disparity in propagation of television channels.

better to put the extraordinary effort into making UHF work where success will mean a truly nationwide competitive system of television.

C. The committee's proposal

56. First, let us recite the immediate premises for the committee's plan. A concrete policy for the Commission in its rescue mission begins and virtually ends with the definition of television's basic unit—the coverage area. So long as the Commission was preoccupied with its priority one, the basic unit was one listener; and the definition of a "proper" coverage area was regarded as so unimportant as to require no uniform description at all. But give hometown television its priority, and the Commission is forced to define the dimensions of the hometown, the area which contains all the people who can use a single station to mutual, local advantage.

57. Fortunately, this is a simple job performed many times by experts. A "community" in the sense used here is the precise equivalent of the standard retail trading area, a definition which both fits the needs of local buyers and sellers, and describes the boundaries of the common social endeavor. Beyond those boundaries lie TV's wonderland, where the Governor of New York urges the citizens of New Jersey to vote for him, Bridgeport citizens are importuned to support New York's United Fund, and all the news is foreign news.

58. If the standard retail trading area describes the optimum hometown station coverage, then the means for implementing priority 2 are at hand. The committee envisions the remedy in three basic steps, all interrelated:

Step 1: Each station's signal coverage must be conformed to the retail trading area of its community. In acting upon applications for new stations in other communities, any interference that does not invade this service area should not be considered objectionable. Hand in hand with this limitation must go rejection of any application for increase in tower height or power limit or for satellite stations.

Step 2: In the towns thus uncovered to local television, the Commission should license the operation of stations capable of providing hometown television. In deciding which communities can qualify for licenses in the uncovered areas, three criteria should be applied, namely, (1) Will the new license create a white area? (2) Will the new license provide hometown television? (3) Will the new license provide television to more people than will be deprived of television by the proposal? As a corollary action, an engineering study should be initiated to determine how to provide more signals with smaller separations—a study analogous to the FCC reappraisal of radio's permissible separations.

Step 3: A policy of deintermixture, favoring UHF operation where practicable, should be instituted.

59. Application of the criteria for new stations listed under step 2 above may result in the retention of an existing VHF operation, in the conversion of an existing VHF to a UHF operation, in the reverse, or in the licensing of a new VHF or UHF station. For example, in an area of VHF saturation, that is, where there are three or more operating VHF stations, the committee would favor the drop-in of a VHF channel for the use of a UHF entrepreneur on a reduced mileage separation basis even though interference might result both to and from the dropped-in station, provided the addition of the new VHF station resulted in a gain of service to more people than would lose service as a result of the proposal.

60. The committee further proposes that when VHF drop-ins as above described are made, the Commission should consider making the VHF assignment temporary only, that is to say, the VHF channel would be authorized for use by a UHF permittee or licensee only until the expiration of 2 years after 85 percent or more of all receiver production is composed of all-channel receivers, or until the expiration of 5 years after the date of grant, whichever is the later. At the end of this period the licensee of the dropped-in VHF would be required to convert back to UHF. In the meantime and during the temporary assignment, the licensee would be required to operate both the UHF and VHF assignments. In this way, immediate help would be provided to the sinking UHF station in the VHF saturation area until such time as a healthful competitive climate could be created, at which time the full benefit of the UHF spectrum could be realized.

D. Computability

61. But the moribund state of UHF today raises a special problem. The Commission cannot conjure up new UHF stations by fiat to serve the needs of America's hometowns. For each license there must be a group of investors, by and large local, ready to risk capital. At present the investors who might supply such capital are understandably appalled by (1) the fate of UHF oper-

ators who put their faith in the Commission's 1952 prediction that all-channel receivers were on the way; and (2) the Commission's repeated demonstrations that its major policies are based on the continued growth of the very wide coverage VHF stations.

62. The Commission must therefore not only modify its policy to give equal chance of survival to UHF operations; but it must also create an administrative climate favorable to UHF operators and investors. The equal chance UHF seeks translates itself into a demand for Commission help in getting around the incompatibility between the UHF and VHF signal. It has been demonstrated time after heartbreaking time that without all-channel receivers a UHF station cannot survive if it must compete with more than one VHF station.

63. The Commission must therefore push forward to the day when the production of all-channel receivers will create a demand for UHF service equal to that enjoyed by VHF stations today. In the committee's view this day may be hastened only by the encouragement of UHF in every avenue of approach to the problem.

64. The reason UHF stations today find it possible to compete with a single VHF signal is that it has been shown that such a division of frequencies will induce most local viewers to buy all-channel receivers or converters, thus solving for them selves the problem of signal compatibility. This fact, in turn, underlines the importance of converting all receiver manufacture to all-channel sets—the FCC's original, abandoned goal. Were the Commission by some magic able to transform all receivers in use to all-channel sets as of tomorrow morning, there would be no problem in attracting investors for UHF, in rescuing existing UHF operations, in achieving the goals of hometown television. Lacking magic, the Commission's problem is how to achieve enough of this goal now, and to make its eventual attainment sure enough now, before the indispensable UHF cascades down the drain for good and all.

65. In this context, the equation of station signals to retail trading areas is a major advance in the program of conversion to all-channel receivers since the reintroduction of the UHF signal to television on a competitive basis creates its own demand for such sets. A major guaranty of the same program is to be found in the creation of so-called islands of UHF, that is to say, concentrations of 100-percent UHF-served markets large enough to insure the continued production of all-channel receivers and, more importantly, to increase that production. The committee's opinion of the importance of such islands to the future of hometown television is reflected by the inclusion in its 3-point program of step 3 urging the adoption of a policy of deintermixture, in favor of UHF operation.

66. The committee is convinced that if enough UHF islands are created, manufacturers will begin turning out only all-channel television receivers. We have arrived at this conclusion after discussions with manufacturers' representatives who have indicated to us that when a sufficient number of all-channel receivers are being manufactured, it becomes economically desirable for the manufacturer to maintain only 1 production line turning out the same product—all-channel receivers—rather than 2 production lines—one for all-channel receivers and the other for VHF-only receivers. We do not pretend to know the specific point where it becomes economically worth while for manufacturers to utilize one production line only. We do know, however, that such a point is bound to come when sufficient all-channel sets are sold and that the creation of more UHF islands is one of the most effective methods the Commission possesses for achieving this result.

67. The benefits flowing from creation of UHF islands will be extensive. Not only will those UHF communities be assured of hometown television but, in addition, every community in the United States will be guaranteed an opportunity for expansion as to the number of television stations available to it. If all production becomes all-channel receivers, then UHF can become practicable at a future date in cities like New York, Chicago, Washington, and Baltimore, which have several VHF and UHF assignments, as well as in all-UHF communities. For American business history has shown that if the people in these communities have receivers capable of tuning to UHF channels, entrepreneurs will eventually be found who will risk their money in building such stations to serve them. We realize that it may take several years before this can take place. However, this is no reason for not starting the process which will make the objective possible. It is not necessary that all communities have their maximum number of stations from the outset. Additional growth is necessary for many communities to be able to support that number. What is needed is that type of planning which makes it possible for all communities eventually to have their maximum poten-

tial of television stations. As things now stand, that potential will never be realized.

68. The consumer has frequently been cited as the insurmountable barrier to any widespread conversion to UHF. The argument: The American public has already bought 30 million TV sets, most of them VHF receivers; and the people—burdened by this monstrous investment—must therefore unfortunately be barred forever from the benefits of UHF and hometown television.

69. Fortunately, the problem is not so great as it has been made to appear. In the first place, about 7 million sets will be sold this year, most of them to present users, assuming a replacement cycle which is completed within 5 years. Secondly, the current upsurge in technological advances—from color reception to the curved tube—are calculated to shorten appreciably this already short turnover period.

70. In the third and decisive place, the committee's program is expressly calculated to accommodate the owner of a VHF receiver until he is ready to trade his set in for an all-channel receiver. By guaranteeing the presence of VHF service in any outback area formerly serviced on a VHF-only basis, the Commission can assure television to the owner of both the VHF set and the all-channel set, pending national conversion to all-channel receivers. By the same token, the committee's program explicitly provides that there shall be no net loss in the number of people able to receive a TV signal, it being understood that this is without the need to buy a new type of receiver.

71. The equity of the consumer in this TV set is, of course, just as important to the plans of the committee as it has been to the deliberations of the Commission. But whereas the Commission has evidently determined that there is no feasible way to get the consumer to relinquish his VHF receiver, the committee believes the conversion can be accomplished in a two-step process:

(1) A commercial inducement for the manufacturer to switch to the manufacture of all-channel sets by the introduction of UHF stations in VHF areas—UHF stations with an even economic chance of survival; and

(2) The normal replacement cycle of TV sets.

72. The same factors which will induce the manufacturer to switch to all-channel production will urge the consumer to trade in his present UHF set for a new all-channel one. Furthermore, our commercial history attests to the fact that in the early developmental days of a new product the constant flow of radical improvements accelerates the normal cycle of replacement.

73. In the category of radical improvements, the role of color television cannot be too strongly stressed. If it is true that the future of television lies in color, it is just as impressively true that the future of color television under the concept of hometown television must base itself in the first instance on UHF reception. Faced with a consideration as strong as this, the entire industry would have no choice but to devote its best efforts to the improvement, manufacture, promotion, and sale of the all-channel receiver, night and day. Further to expedite conversion the committee has incorporated into its plan the UHF island theory of allocations.

74. In short, the committee is convinced that receiver compatibility does not present an insoluble problem. On the contrary, if the committee's plan is adopted, useful and effective tools to remedy the problems caused by incompatibility are at once at hand.

E. Other action recommended

75. In addition to the remedial steps heretofore set forth the committee urges the adoption of other action calculated to preserve UHF and hometown television and to establish a strong and healthy nationwide television system.

76. First, we urge the Commission to make the fullest use of the powers granted it by section 303 (i)—to make special regulations applicable to stations engaged in chain broadcasting—to aid hometown television. The experience of operating UHF stations shows that where they are able to carry NBC or CBS programs not otherwise available in the markets, successful UHF operation is possible. Thus far NBC and CBS programs have not generally been made available to UHF stations where VHF stations are available to carry them. A notable exception is the situation where NBC or CBS has contracted to buy a UHF station. In those situations, says CBS in its ex parte proposals, de intermixture is not necessary for UHF can succeed in competition with VHF. It appears to be the network position that the networks can make UHF work but that they will not do so unless they are permitted to own the UHF stations. We urge the Commission to consider that the statutory duty imposed upon it by section 303 (g) of the Communications Act—to encourage the larger and more

effective use of radio in the public interest—requires energetic action to save UHF and that this obligation is not discharged unless the Commission uses to the full the authority "to make special regulation application to stations engaged in chain broadcasting" by compelling a greater availability of network programs to UHF stations.

77. Second, we urge the Commission to grant immediate relief to some of the UHF problems by making it possible for all UHF operating stations to operate in the lower part of the UHF band. In the present stage of the art, it is quite beneficial to have one of the lower UHF channels in contrast to the upper UHF channels. This objective is not possible in the use of many UHF stations because of the taboos set forth in section 3.610 of the Commission's rules and regulations. We believe the time has come to review these taboos. In our opinion, developments since the adoption of that rule now make it possible to eliminate or substantially mitigate many of these taboos.

78. Third, we urge the Commission in this proceeding firmly and finally to reject the proposal to permit an increase in antenna height to 1,250 feet for VHF stations in zone 1. Such a move will increase the already large service area of VHF stations located in the large metropolises and will further cripple the cause of hometown television.

79. Fourth, we urge the Commission to revise its policies with respect to satellite stations. The use of such stations is merely another device for extending the service potential of metropolitan stations. As a result of such stations, additional reception may be provided to some areas but their hopes for their own local outlets will be greatly lessened thereby.

80. Fifth, we recommend that the Commission should not permit an increase in UHF power above the 1-million-watt maximum now provided for. Such higher powers can be effectively utilized only by metropolitan stations to the disadvantage of the smaller communities.

81. Finally, we urge the Commission to create the type of psychological atmosphere which shows that the Commission is irrevocably committed to making UHF succeed. We are sorry to say that, although the words the Commission utilizes seems to say that this is the Commission's policy, the acts of the Commission more often point in the opposite direction. For example, the Commission indicated that the UHF deintermixture petitions had a high priority. Nevertheless, the Commission adjourned for a long summer recess without taking any action on them and has now denied them. Nevertheless, it did not permit the long recess to begin before it adopted its order increasing maximum antenna heights for VHF stations in zone 1. No urgency whatsoever existed for this action. Since deeds speak louder than words, it is only fair for a disinterested outsider to conclude that the Commission speaks kindly for UHF but its helping hand is for VHF. We urge the Commission in its action to give the highest priority to the matters affecting UHF so that the public can see that the helping hand as well as the helping word is for UHF.

V. Effects of the committee's plan on the industry

82. What then will be the effect of the committee's plan on the television industry? The CBS October 5 memorandum to the Commission is a good example of the wolf-crying in high places which has served so notably to confuse the issues involved in achieving the sixth report and order's priority 2; and the interest of clarity and sanity require the committee to examine the consequences of its program before someone else does it for them.

83. The wide-coverage VHF station loses audience by retracting its signal. The number of listeners lost will vary from case to case, but because the loss is always at the sparse fringe, never at the concentrated core, it is doubtful that the number will ever exceed 10 percent of the total. In point of economic fact, the elimination of this fringe audience will not diminish either the station's time rate or its income by 1 cent, and for a pertinent reason; the people comprising that fringe audience belong to another hometown, and they neither shop in nor look to that station's community.

84. The networks' hopes for the immediate future are well displayed in the CBS memo: they look forward to achieving maximum coverage with a minimum number of affiliates. Any reduction in affiliate coverage which the committee's plan might cause would require the networks to relinquish their present claim to "bonus" markets or to sign up more affiliates. Since network programming is highly desirable for fledgling stations, it would appear to be in the national interest to encourage the networks so to increase their affiliations. But maxi-

mum or minimum, the income from advertising to the networks under the committee's plan remains undiminished.

85. Indeed, the climate of plenty created by additional potential affiliates may spawn new, competitive networks providing new program sources for the expanding industry. Moreover, it is worth noting that the creation of more network affiliates must inevitably result in increased competition among TV stations at the local or operating level. And—in a cycle familiar to any observer of American competition—such sharpened competition will in turn result in better service to the advertiser, closer relations to the community, and better programing for everybody. Contrast this with the commercial sludge to be induced by the "supermarket" concept of coverage.

86. The national advertiser can hardly be said to have a bona fide standing in this consideration of a national television policy. But to the extent that he does, he is eligible for congratulations. Were the committee's plan in effect, it is just barely arguable that he would be forced to pay more money for the same audience for that brief period during which the networks transferred their giveaway "bonus" markets from an original affiliate to a newly acquired one. But as soon as the demands of local competition asserted themselves, he would be back at the same old cost per thousand, paid under the committee plan to stations laced twice as tight as before to their hometown audiences.

87. Finally, of course, it is the consumer who becomes the major beneficiary of the committee's plan. For only under this plan can the consumer—which is to say, the public—enjoy a television facility administered for his benefit, for his needs, and for his use.

VI. Perspectives and summary

88. It is generally conceded that if the FCC fails to take affirmative action at this juncture, UHF in the United States is dead. To this axiom we may now add a second one: If UHF is allowed to die, then with it will pass all chance we will ever have for hometown television. More than that, for the same reason that the end of UHF spells the death of hometown television, it also must mean the eventual ascendency of that sterile and dangerous concept—the "supermarket system." There is no halfway house.

89. We are, in fact, at a moment of crisis in the history of communications, and our duty now is to recognize that this is a crisis; the perspective of history will make this fact plain enough. The first step toward saving hometown television must be taken in the minds of the Commissioners. They must concede that UHF and hometown television can be rescued by a series of immediate, forthright, and affirmative actions well within the scope of their own authority. This done, the vista is fine:

1. The present retreat into a stifling and dangerous monopoly will be ended.

2. The television industry will obtain better and closer coverage, better programing, more return for the advertising dollar, and—in short—more television.

3. America will get hometown television, an essential aspect of its democratic tradition.

Respectfully submitted.

COMMITTEE FOR HOMETOWN TELEVISION, INC.
By PAUL A. PORTER,
HARRY M. PLOTKIN,
REED MILLER,
ARNOLD, FORTAS & PORTER,
Washington 6, D. C., Its Attorneys.

Dated: December 9, 1955.

COMMITTEE FOR HOMETOWN TELEVISION, INC.

ARTICLES OF ASSOCIATION

BE IT KNOWN, That we, the subscribers, do hereby associate ourselves as a body politic and corporate, pursuant to the statute laws of the State of Connecticut regulating the formation and organization of corporations without capital stock, and the following are our articles of association.

ARTICLE 1. The name of said corporation shall be COMMITTEE FOR HOMETOWN TELEVISION, INCORPORATED.

ARTICLE 2. The purposes for which said corporation is formed are the following, to wit:

(a) To promote and support the development of hometown television stations.

(b) To provide a medium for the mutual exchange of information and material concerning the television industry.

(c) To study and support means for the furtherance of hometown television as a public community service.

(d) To work for equal competitive rights among television stations.

(e) To support or oppose public or private plans, programs, legislation, regulations, administrative actions, or activities of any kind which would or might affect the television industry or any part thereof.

(f) In general to work for and promote any matter or action which would be for the general welfare of the television industry and its hometown television stations.

ARTICLE 3. (a) There shall be three classes of membership in this association, as follows:

(1) Station members—consisting of persons, firms, or corporations operating licensed television stations not owned or controlled by a national network.

(2) Industry members—consisting of persons, firms, or corporations engaged in the business of manufacturing, assembling, or distributing television equipment, or otherwise engaged in some branch of the television industry.

(3) Associate members—consisting of any other persons, firms, corporations, foundations, or other organizations interested in the general purpose of this association.

(b) Membership in any class shall be by vote of the board of directors, who shall have the power to exclude from membership any applicant whose business or activities do not qualify it for membership, or are not in harmony with the scope and purposes of this association. No television network shall be eligible for membership in any class.

(c) By vote of two-thirds of the station membership, membership in any class may be canceled for nonpayment of dues or assessments, a change in status rendering it ineligible for further membership, or for any act or course of conduct contrary to the purposes of this association.

(d) There shall be one membership only for each television station qualifying for membership, and the board of directors shall be the final judge of all questions concerning qualifications for and admission to membership. Notwithstanding common ownership of 2 or more stations, each of such stations shall be entitled to 1 membership.

ARTICLE 4. This association shall not be operated for profit and no part of its earnings, funds, or property shall inure to the benefit of any member or individual. No officer or director shall receive any compensation for services or expenses in the performance of his duties.

BYLAWS

Article I—Meetings

Section 1: There shall be an annual meeting of the association to be held at such time and place as the board of directors shall determine.

Section 2: Special meetings of the members of the association may be called by the president, the board of directors or upon written request, stating the reasons therefor, by five members of the association in good standing.

Section 3: Written notice of all regular and special meetings of the association stating the day, hour, place and purposes thereof, shall be mailed or personally delivered at least 5 days prior to the meeting to the address of each member of record.

Section 4: Representation of one-fourth of the membership shall constitute a quorum at all meetings of the association.

Section 5: At each meeting of the members all votes shall be taken by a show of hands, unless voted to be by written ballot, all elections shall be determined by plurality vote and all other matters by majority vote of those voting.

Section 6: Only station members in good standing shall be entitled to vote at any meeting of the association, and each station membership, as determined by the board of directors, shall have one vote. The vote of any firm or corporation holding a station membership may be cast by any authorized officer or member thereof, and any station member may be represented and vote by proxy.

Section 7: Any matter, proposal or project may be determined by mail ballot with the same force and effect as if determined at a regular meeting, at the discretion of the board of directors, the vote of one-third of the station membership being a quorum in such cases.

Article II—Board of directors

Section 1: The general management and control over the affairs, business and property of the association shall be vested in a board of directors consisting of not less than 3 nor more than 15 members, who may also be officers, provided that the station membership shall always hold a two-thirds majority on the board.

Section 2: The board of directors and a chairman thereof shall be elected at the annual meeting to hold office for 1 year or until others are elected in their stead.

Section 3: Meetings of the board of directors shall be held upon the call of the president or one-third of the directors, written notice of which, specifying the time and place, shall be mailed or personally delivered at least 3 days prior to the meeting. The chairman of the board of directors shall preside at its meetings, and a majority of the board shall constitute a quorum.

Section 4: A vacancy shall exist when any director, or the member organization which he represents, resigns from the association, ceases to qualify for membership, or has his membership canceled, and any vacancy for these or any other causes, may be filled by majority vote of the remaining directors for the balance of the term.

Section 5: No public statement of the policy or position of the association on any issue shall be made except on prior authorization of the board of directors.

Section 6: The board of directors may create any such standing or special committees as it may deem appropriate.

Article III—Officers

Section 1: The officers of the association shall be a president, vice president, secretary, assistant secretary, treasurer, and assistant treasurer, to be elected by the members of the association at the annual meeting, for 1 year or until others are elected in their stead. No person may hold two offices, except that the same person may be secretary and treasurer.

Section 2: The president shall preside at all meetings of the members of the association, shall have general management of the affairs of the association, subject to action of the membership and the directors, and shall have the powers and duties normally associated with his office.

Section 3: The vice president shall assist the president in his duties and serve in his stead in case of the absence or disability of the president.

Section 4: The secretary shall record the proceedings of the membership and the directors, give notice of all meetings as required, and keep the records and papers of the association, including a record of all members, and their addresses. The assistant secretary shall assist the secretary in his duties and serve in his absence.

Section 5: The treasurer shall receive all funds due the association and deposit the same as directed by the directors. Checks for the disbursement of funds of the association shall be signed by such officer or officers as the board of directors may from time to time direct. The treasurer shall keep accurate accounts of all receipts and disbursements and report on the same when required. The assistant treasurer shall assist the treasurer in his duties and serve in his absence.

Section 6: A vacancy shall exist when any officer, or the member organization which he represents, resigns from membership, ceases to qualify for membership, or has his membership canceled, and any vacancy for these or any other causes may be filled by majority vote of the board of directors for the balance of the term.

Article IV—Dues and assessments

Section 1: The fiscal year and membership year of the association shall be the calendar year.

Section 2: The dues of station members shall be \$100 per station member per year. Dues for industry and associate members shall be as fixed by the board of directors.

Section 3: The voting membership of the association may at any meeting after due notice levy a special assessment upon the membership for the purposes of the association. Any such assessment shall be prorated among operating station members in the ratio of each station's highest published national class A hourly rate. Nonoperating stations shall not be assessed.

Article V—Amendments

These bylaws may be amended by majority vote at a meeting of the voting membership, after due notice, and may also be amended by a two-thirds vote at any meeting of the board of directors, after due notice, subject to changes adopted by the membership.

For copies of this brief:

Committee for Hometown Television,
Box 9140, Bridgeport, Conn.

Gentlemen:

Send ___ copies of this document to me.

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Firm _____

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TV Industry Representatives

TV Stations

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Mr. MERRYMAN. I believe you all have copies of it.

What all of us are seeking from the FCC, then, is that they accomplish the task the Congress set for them. This would certainly involve some changes in current FCC policy; some steps they have taken will have to be retraced. But I wish to make the point that such changes are needed only to return to the path the Congress set for the FCC in the first place.

The question now becomes: How can we put the FCC and our national television allocation policy back on the track for priority 2—a television facility for every community?

There is evident in testimony given here, and in statements recently filed with the FCC, a tendency to make this problem seem more complex than it really is. This seeming complexity is due largely to the fact that discussion has centered around the engineering problems involved rather than addressing itself to the fundamentals of policy.

If you or I set out to put up an office building, we don't start by calling in the plumber, and then design the building around his pipelines. We call in the architect, and require the plumber to figure out plumbing lines that will fit the architect's plan.

No more should we now let engineering arguments shape the future of America's television. Policy comes first, and engineering is the servant of policy, not its master.

Long ago Congress, that is, you gentlemen, told the FCC to provide "an equitable distribution" of television facilities, and the FCC at that time set up its allocation priorities as a translation of that policy. But the Chairman of the FCC, in his recent appearance before you, spent most of his time discussing his engineering problems and virtually none defining what his Commission is—or should be—trying to accomplish.

The FCC has virtually abdicated as an instrument of Government policy; instead it seems to be attempting to rewrite your policy by a mystic and unprofessional estimation of which policy creates the least stubborn engineering problems.

I think I am right in saying that the function of these hearings is to reexamine Government policy in the light of television's most recent experiences. In one sense this is an easy task. If we agree with the Chairman of the FCC that priority 1—a TV signal for everybody—

has been about 90 percent fulfilled, then we will also agree that priority 2—a TV station for every community—is now the first order of business.

From there to the imperative need to sustain UHF is an easy step, and we could stop right there. You gentlemen could simply say to the FCC, "See to it that every town that can—or will be able to—afford a TV station can get one."

But the whole question of TV's future has been allowed to become clouded in such a welter of special pleadings, has been so obscured by indecisiveness, that it may be helpful to examine the terrain from the perspective of policy.

Almost everybody agrees that television faces a crisis and the division of opinion is mainly on what is to be done. There are four general solutions advanced:

To go all UHF

To reduce VHF coverage and go all VHF

To reduce VHF coverage and drop in V's and U's

To deintermix

All of these plans are based on the recognition of our need to advance on priority 2. A fifth plan has been advanced by CBS, to reduce television to 100 markets, but since its effect would clearly be retrogressive—moving us even further from priority 2 than we now are—it does not appear to have any standing in these discussions.

It is in the technical arguments against one or another of these solutions that the industry itself and the FCC have lost themselves. And yet these rebuttals are neither so complicated nor so numerous as to resist a layman's analysis. All the counterarguments advanced against these solutions finally boil down to three points, and with your permission I will list them:

Plans involving any cutback in existing signals are criticized for eliminating rural coverage.

Plans involving drop-ins are criticized for eliminating service and for what is euphemistically called degradation of service.

All plans have at one time or another been attacked as violative of the precedent of radio's clear-channel broadcasting.

Now the plain fact is that these counterarguments lack the stature to warrant consideration on a policy level. On close examination, they turn out to be what I might describe as plumber problems.

To take the most often cited problem first, consider the matter of rural coverage. As you know, the objection to a cutback in existing signals, or the exchange of a VHF station for a UHF station under deintermixture, is that the resulting loss in wide coverage signals will deprive the people living away from towns and cities of a signal.

Now let me invite your attention again to this map. (Facing p. 439.) It is a copy of the CBS exhibit used by that company to illustrate how its 100-market plan would work out. I am very fond of this map because it provides a clear illustration of so many facets of the problem we are discussing.

CBS drew it to show the coverage that would result from putting 3 wide-coverage VHF stations in each of the 100 leading markets in the country. If you live inside one of the squares, you are presumed to be able to get a signal—and I guess you probably would. On the other hand, if you live in one of these white areas, you don't get any TV. Look at the size of the white areas. Look how much of the

United States is left uncovered under the CBS plan. The term "white areas" may be exactly translated as rural coverage, as you can see from their locations. So the plain fact is that under the most extreme plan yet advanced for the use of wide-coverage stations we will get only nominal rural coverage. I will return to the matter of rural coverage again, but let me note now that wide-coverage VHF stations alone obviously do not contain the answer to that problem, and, therefore, any argument based on the need to maintain present power limits among VHF stations for the sake of rural coverage is either shortsighted or something less than frank.

This leads me directly to the so-called clear-channel argument. Now, I have been in the radio-television business my whole life, starting in 1922, when I built my first radio station, and I think I am as familiar with the history of this industry as anyone. I do not think there has ever been a stronger proponent of the clear-channel stations than I have been throughout my history. But listen as I will to the people who drag the clear-channel concept into the question of television allocations, I am still only able to conclude that they are very careless thinkers.

Clear-channel broadcasting made its appearance in radio in 1926 as a method of providing this rural coverage we are discussing. Briefly, what clear channel broadcasting describes is a system of allowing certain stations the right greatly to increase the range of their signal at night in order to reach people in isolated rural areas.

The economics strictly determined that that was the only way you could cover the western half of the United States with that service.

These signals reach out in the order of 710 miles in all directions from the sending station, and, of course, the stations permitted to have a clear-channel signal are thereby given a competitive advantage over their sister stations. The theory is that the evil of granting a competitive advantage is outweighed by the good in providing rural coverage—the conventional equation of public policy.

Now we come to television. In the face of a move to retract the signals of certain wide-coverage VHF stations, their owners have raised the cry of "clear channel."

The implication is that any cutback will cause a significant loss of rural coverage, as it would in clear-channel radio stations. Now, the normal maximum coverage of a TV station, according to FCC standards, is a circle with a radius of 60 miles, which means that its maximum coverage area is less than one one-hundredth of that of a clear-channel radio station, and its claim to the protection of public policy stands, I think, in about the same proportion—one to a hundred. So much for the clear-channel and the rural-coverage arguments.

Here is another map of television coverage. This one shows the total coverage of all VHF stations east of the Mississippi. You will notice that the contour lines, outlining station coverage, look quite different from those shown on the CBS map. This is due to the fact that CBS elected to outline its coverage areas by county lines, a method which unhappily masks the fact that there is present an enormous amount of overlap.

I might make this further observation, that these circles were figured on the present powers and antenna heights of every individual VHF station. They do not, by and large, correspond with the claims of coverage of the individual stations themselves.

The stations always claim much greater coverage than this. My point is, if they have the greater coverage, the overlap is the greater.

When you see this map, you are looking at the effect of having anywhere from 1 to 10 VHF services in 1 community. Careless analysis has led many people to the assertion that unlimited licensing of wide-coverage VHF stations is the road to the fulfillment of priority 1, a TV signal for everybody; and in its pursuit of priority 1, the FCC seems to have been influenced to a great extent by this canard. As this map plainly shows, 1 station per community will fulfill priority 1 just about as well as 10.

Certainly there is value in having competitive services available to the viewer. But just as certainly the FCC should not have traveled so far down this road that the multipurpose and invaluable UHF stations were blocked out—as they most certainly have been. Here, it seems to me, is a prime illustration of congressional policy being thwarted simply by being ignored.

Once again, you will observe from this map—which shows how matters stand today—that rural coverage is negligible. But it also shows something else: Consider for a moment the area covered by the New York TV stations, or the Chicago TV stations. Note the overlapping of coverage, composed of a number of stations operating on different channels. Now suppose an application for a VHF drop-in within the shadow of this wide coverage. What is required for such a drop-in is that the signal of existing VHF stations on the same channel in this area be pushed back by the signal of the drop-in.

Is the total coverage of the area reduced? Obviously not, since the area is still covered by the remaining stations on other channels. Assuming there is any rural coverage, will it have been reduced? Obviously not.

Will the station whose signal has been pushed back be put at a disadvantage? Yes, I think it will, though not nearly so great a one as might at first appear.

Is the imposition of such a disadvantage on one such station justifiable? It is here, I think, that we are able to find an honest analogy with the clear-channel argument of radio. Let us assume that the drop-in will provide hometown television to a community otherwise dependent on a foreign signal. Then surely the dictates of public policy will agree that the provision of hometown television to a community will justify whatever minimal hardship may result to the station that has been pushed back.

But that is not all. It is perfectly feasible to project a television allocations plan under which even this minimum hardship to a station will be temporary. This is so because any plan advanced for the salvage of hometown television is based ultimately on the universal use of the all-channel receiver, which permits the pushed-back signal once again to resume its old coverage without drowning hometown coverage.

Now let's look at this matter of drop-ins and elimination of service from a bit closer up. Here is another engineering map. It is the map of a hypothetical area containing 3 VHF stations on the same channel situated at the apexes of an equilateral triangle with sides 170 miles long. That distance, of course, is the minimum separation decreed by FCC rules; and this arrangement of perfectly equal separations between the three stations—an arrangement never found in fact

because cities are not placed that way—is the most unfavorable to a drop-in station that can be conceived. If it work here, it will work anywhere.

The point is, if the drop-ins will work in this situation, they will work in any situation now existing in our economy. You will see that equidistant from all the corners I have placed a hypothetical drop-in VHF station. Its own signal extends in a 10-mile radius without interference, a coverage area of about 300 square miles.

You will notice that the drop-in station creates interference with all 3 of the stations at the corners, pushing each of them back from a theoretical service area of 58 miles to 28 miles in the direction closest to the drop-in, and to lesser distances around the circle to the back end where no appreciable new interference exists.

However, before the drop-in, the three stations at the corners interfered each with the other so that the actual new interference is relatively small. When we consider, in addition, the effects of other stations outside the triangle each located exactly 170 miles from the triangle stations, the interference of the drop-in becomes even less significant.

But notice that this assumption is much more stringent than the facts are ever likely to be. In the first place, it is highly unlikely that there will not be in this area signals from some other city on a different channel—which signal will, of course, be affected not at all by the new drop-in. In the second place, it is becoming increasingly likely that one or more of the three communities at the corners will have more than one station on different channels—and for these, too, the new drop-ins can create no interference.

Thus, in terms of priority 1—a signal for all—this area remains as it was—overfulfilled. In terms of priority 2—a station for every community—we have made a significant advance. As for elimination of service, practically there has been none. The people living in this area of interference can get their signal from at least as many sources as before.

This brings me to the catch-phrase, “degradation of service.” This is a favorite bugaboo of the networks, and appears over and over again in their briefs. What they are talking about is the fact that the old existing signal will be pushed back along this line nearest the center in the circles. To the extent that the original station will serve public policy by having its signal pushed back, its service will have been degraded. However, even the extent of that interference gets exaggerated: The interference area shown on FCC charts do not in fact exist, since modern directional antennas have already reduced interference below the theoretical levels used by the Commission. Engineering considerations aside, this must be so, otherwise we would not find what exists in fact: Many VHF stations serve areas 100 miles or so distant, in contrast to the 60 miles the FCC says is the limit of their service areas.

The public’s television will not have been degraded, but on the contrary, enhanced. In short, “degraded service” is an editorial word properly used to describe the feelings of an unwilling servant of the public’s interest—and no more.

To return to this map: You will notice that once the underbrush of “clear channel” and “degradation of service” and so on is cleared away, it is possible to drop in many new VHF stations. In other

words, without doing damage to any congressional policy or engineering precept, it is possible to increase significantly the number of operative TV stations on the VHF frequencies in any given area. I estimate that every one of the 95 commercial UHF stations now on the air can be accommodated by a VHF drop-in. And many of the 104 holders of construction permits that are now sitting on them can also be accommodated, given the incentive to build those stations.

So far, with these maps I have been discussing mainly the matter of dropping in VHF stations. This procedure does much to ameliorate the crisis of hometown television. But obviously, in terms of long-term, overall solutions, it is inadequate, and we must turn our attention also to the use of UHF.

If we wish to place a UHF hometown station here, where I had placed the hypothetical VHF drop-in, the fact is that everybody in this area has sets which can receive VHF only, and so will probably never bother to spend the \$50 to \$100 needed to convert their sets and look at the new UHF station. In other words, even if you put the new UHF station there, who would watch its signal? The answer, as more than 350 UHF operators now know, is—practically nobody.

Therefore, we are faced with the need to take a second step, designed to make it possible for the public to watch the new station without buying converters for its sets.

In the last analysis, the purpose of any step taken at this point is to get all-channel sets in the hands of the public, getting them to buy them in their normal replacement cycle—now figured at about 5 years. With all-channel receivers, free competition is restored, and the provision of hometown service will go on those most competent to supply it.

Here is one method by which this can be achieved:

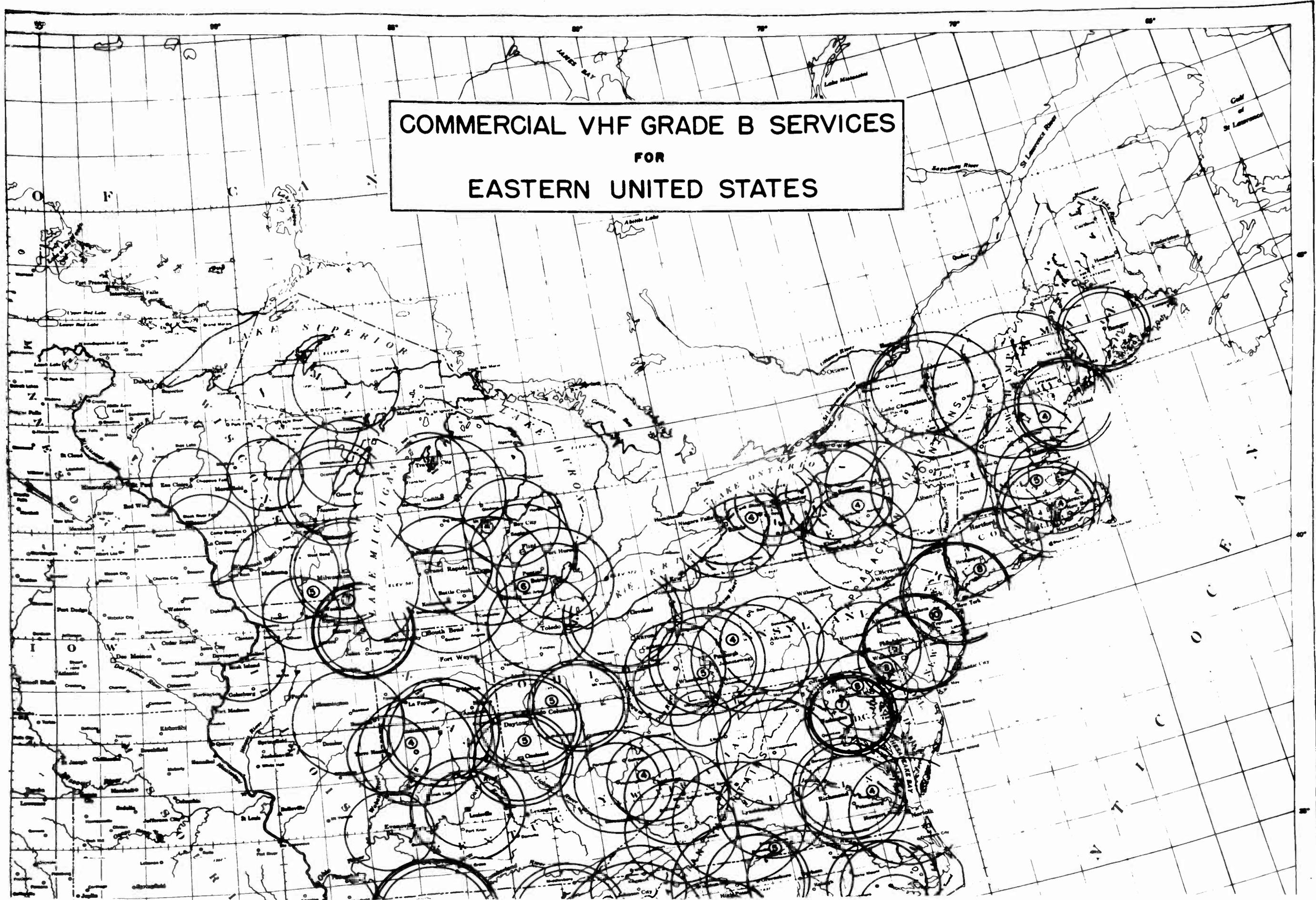
Step 1: Each station's signal coverage must be conformed, where necessary, to the retail trading area of its community.

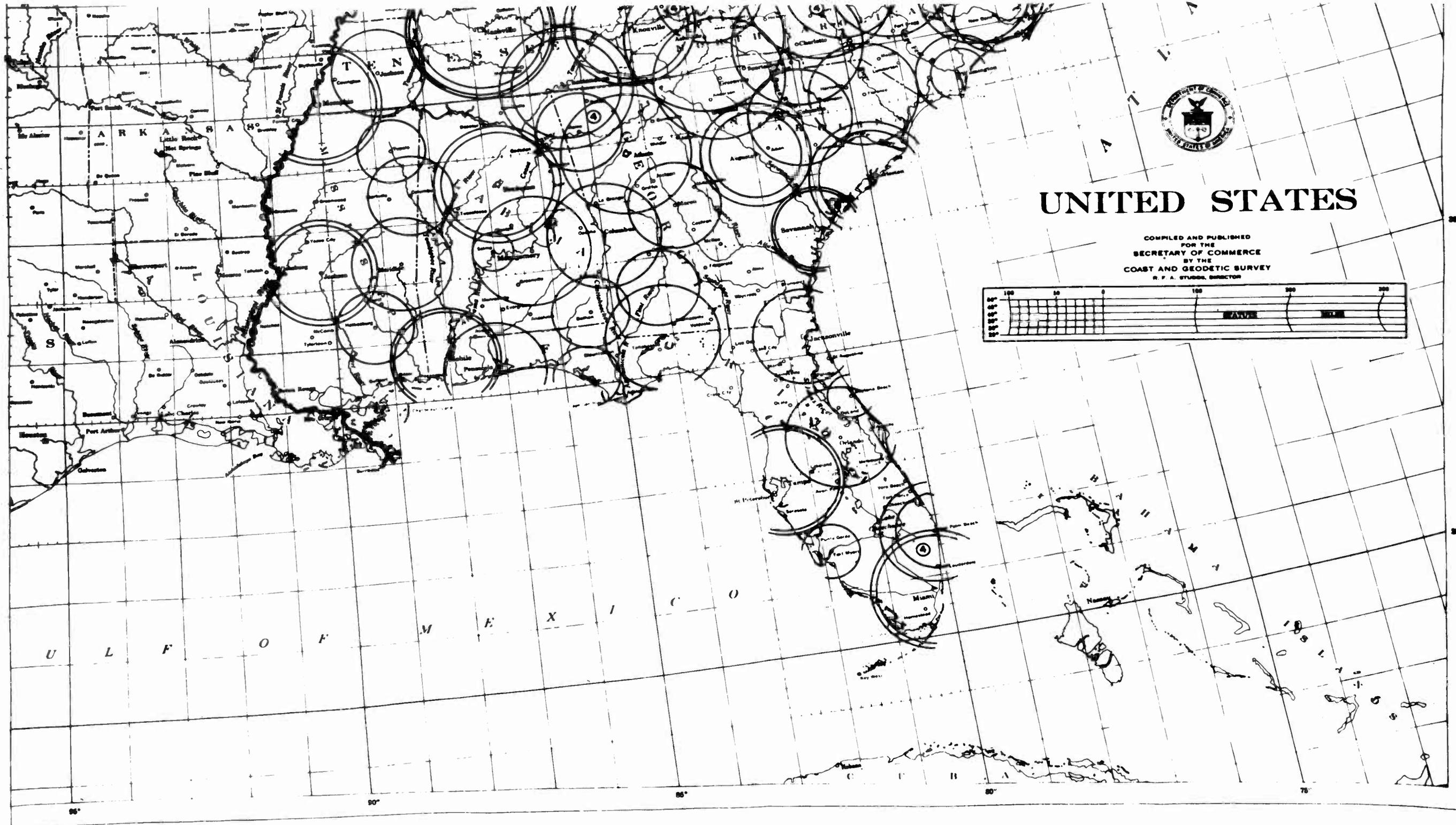
Step 2: In the towns thus "uncovered" to local television, the Commission should license the operation of stations capable of providing hometown television.

Criteria for new stations listed under step 2 above can result in the retention of an existing VHF operation, in the conversion of an existing VHF to a UHF operation, in the reverse, or in the licensing of a new VHF or UHF station. For example, in an area of VHF saturation, i. e., where there are three or more operating VHF stations, we would favor the drop-in of a VHF channel for the use of a UHF entrepreneur on a reduced mileage separation basis, even though interference might result both to and from the dropped-in station, provided the addition of the new VHF station resulted in a gain of service to more people than would lose service as a result of the proposal.

The committee further proposes that when VHF drop-ins as above described are made, the Commission should consider making the VHF assignment temporary only, that is to say, the VHF channel would be authorized for use by a UHF permittee or licensee only until the expiration of 2 years after 85 percent or more of all receiver production is composed of all-channel receivers, or until the expiration of 5 years after the date of grant, whichever is the later. At the end of

COMMERCIAL VHF GRADE B SERVICES
FOR
EASTERN UNITED STATES





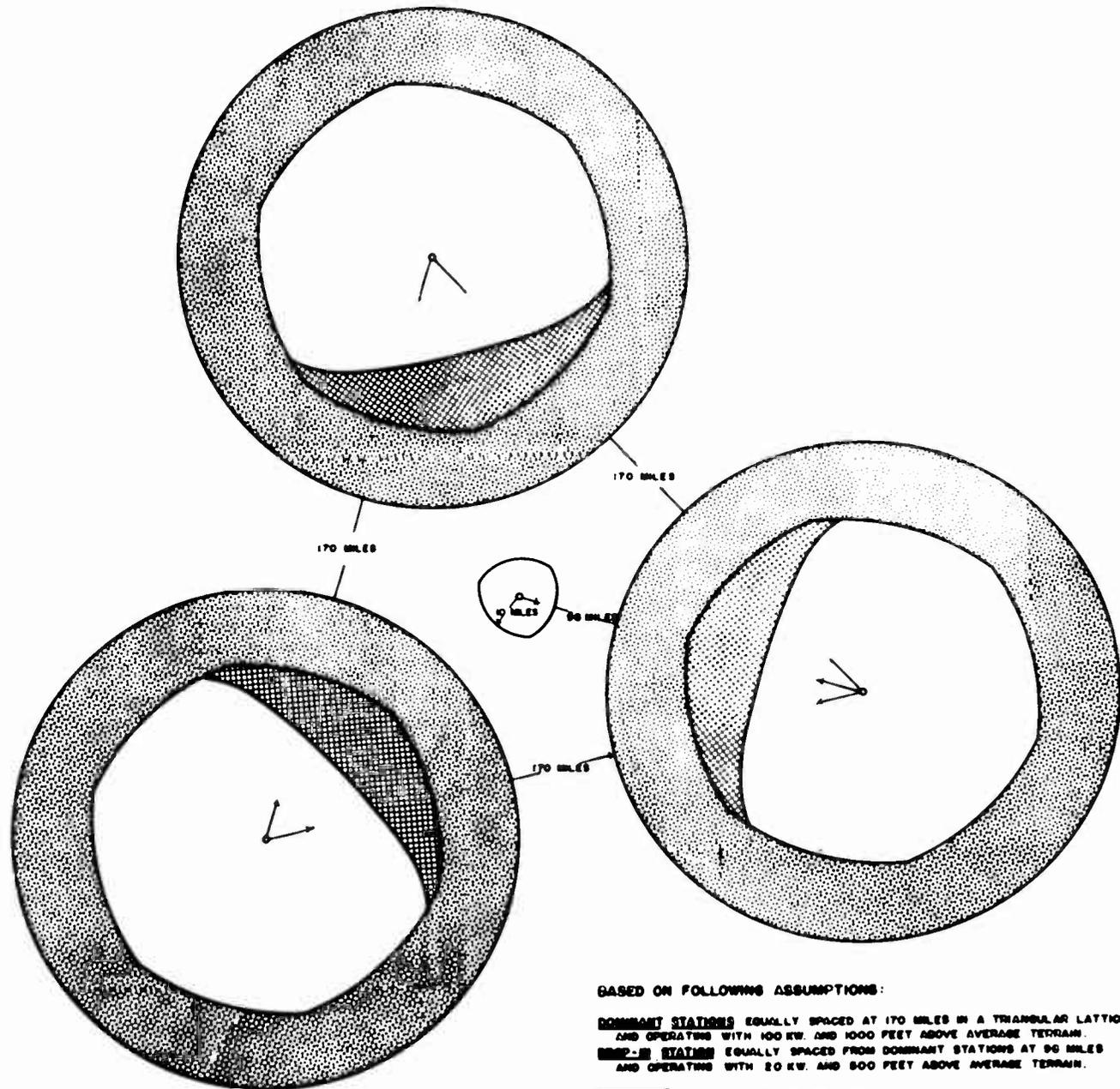
UNITED STATES

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BY THE
COAST AND GEODETIC SURVEY
R. F. A. STODOL, DIRECTOR



U L F O F M E X I C O

LOW BAND GRADE B INTERFERENCE FREE SERVICE AREAS



BASED ON FOLLOWING ASSUMPTIONS:

DOMINANT STATIONS EQUALLY SPACED AT 170 MILES IN A TRIANGULAR LATTICE AND OPERATING WITH 100 KW. AND 1000 FEET ABOVE AVERAGE TERRAIN.

DROP-IN STATIONS EQUALLY SPACED FROM DOMINANT STATIONS AT 90 MILES AND OPERATING WITH 20 KW. AND 500 FEET ABOVE AVERAGE TERRAIN.

 PRESENT INTERFERENCE AREA

 ADDITIONAL INTERFERENCE AREA DUE TO DROP-IN STATION LIMITING DOMINANT STATIONS TO 8 MWM (74 DB).

this period the licensee of the dropped-in VHF would be required to convert back to UHF. In the meantime and during the temporary assignment, the licensee would be required to operate both the UHF and VHF assignments. In this way, immediate help would be provided to the sinking UHF station in the VHF saturation area until such time as a healthful competitive climate could be created, at which time the full benefit of the UHF spectrum could be realized.

It is not my purpose here to argue for this or any other particular solution. Rather, I am interested in demonstrating that the arguments that have been raised on an engineering level as a counter to the fulfillment of the Congress' policy are not so weighty as to require abandonment of that policy. It is my own feeling that the engineering solutions now required to implement the congressional mandate for a national television system will probably consist of some combination of deintermixture, cutbacks, drop-ins, and simultaneous UHF-VHF telecasting. But whatever form they may take, all they require is technical ingenuity, some engineering imagination, not black magic. What they require, moreover, is a statement of policy by those responsible for fixing the policy.

I do not think there is a consulting engineer in Washington who practices before the FCC that would take this chair and say to you gentlemen that it is the engineer's responsibility to come up with a national allocations plan for television. I think those engineers almost without exception—if they say to you what they say to me privately—would like to have a policy decision from the Commission to tell them what kind of a television system it is this country needs; and given the policy incentive, the directive to go forward, they will design that television allocations system. They will put the pipelines in the building you put up.

So I think it is permissible to think of our national television system as consisting of a great many hometown stations, plus a great number of wide-coverage, big-town stations. Under such circumstances, let's take another look at the problem of rural coverage. With all-channel receivers for sale all over, we can assume a small, low-cost UHF station in any community that can afford it. And I think that here is where we can find a real and honest answer to the problem of providing rural coverage. How far out can we hope to put these small stations? In other words, how inexpensive can we hope to make them, how small the community that can afford them? Let me show you the trend in costs, and I think you will agree with me that it is not unreasonable to look forward to the day when we can have as many TV stations as we do radio stations—and that will mean five times the rural coverage we have today.

May I direct your attention to the last page of my statement? This is a table which we prepared, as a result of our experience, from presentations made to us by the manufacturers of what the capital costs would be for a small hometown television to serve a small hometown community.

	Tower	Transmitter building	200-watt transmitter (unless noted)	Video equipment	2 film projectors	Audio equipment	Lighting	Test equipment	Total
Adler Commercial Laboratories.....	10,000	10,000	11,175	19,190	3,990	2,890	1,000	2,125	60,370
Dage TV division.....	10,000	10,000	12,875	17,615	4,770	3,110	1,000	2,125	61,495
Dumont Laboratories.....	10,000	10,000	{500 watt}	26,385	4,770	4,254	1,000	2,125	{500 watt}
Federal Telecommunications Laboratories.....	10,000	10,000	{38,830}		3,610	3,110	1,000	2,125	{17,385 Xmtr.}
General Electric.....	10,000	10,000	5,000 watt only	22,290	9,400	4,747	1,000	2,125	{52,135 Xmtr.}
Kay Laboratories.....	10,000	10,000	{100 watt}	15,080	3,990	3,620	1,000	2,125	{49,807 Xmtr.}
RCA.....	10,000	10,000	Prices not listed	22,780	9,500	5,105	1,000	2,125	{100-watt Xmtr.}
Sarkis Turzian, Inc.....	10,000	10,000	12,225	18,540	7,390	3,925	1,000	2,125	{60,510 Xmtr.}

Initial cost less installation charges and taxes.

Those figures are quite different from the figures that have been talked about heretofore. We have listed proposals by eight different manufacturers, all of them, I think, well known to you.

I would like at this point—because I think this is a very great point to establish, that hometowns can afford television—I would like to introduce at this point Mr. Benjamin Adler, who has himself constructed 15 television stations and is certainly an expert who can tell you the facts you want to know about how much it costs to build these stations.

The CHAIRMAN. Go ahead, Mr. Adler.

STATEMENT OF BENJAMIN ADLER, PRESIDENT OF ADLER ELECTRONICS, INC., NEW ROCHELLE, N. Y., FOR THE COMMITTEE FOR HOMETOWN TELEVISION, INC.

Mr. ADLER. Mr. Chairman, I have a short statement here which I would like to read. My name is Benjamin Adler, president of Adler Electronics, Inc., manufacturers of transmission equipment for TV broadcasting stations. I hold the degree of electrical engineer and am licensed as a professional engineer in the State of New York. I have been associated in various degrees with TV broadcast engineering and construction since 1928 and have been personally responsible for the design construction of 15 TV stations in the United States during the past 5 years.

A number of these stations have been in smaller cities. Some of them, of course, have been in larger cities. Many of the cities have been in about the same category as Bridgeport insofar as population to be served is concerned. Some of the stations have been UHF; some have been VHF. They have been divided.

During this period our organization has specialized in facilities for low-cost construction and operation of TV stations. We recognize right from the start that as we were getting into the smaller cities, it was quite difficult to justify the large expenditures that were necessary in order to establish television broadcasting stations, and we started some time back attempting to cut costs and cut corners in order to arrive at economical prices.

It was very difficult to cut them very far because of FCC rules that prevailed at that time. Since then, the Commission has authorized a new set of rules which have not gone as far as we had hoped, but they have reduced the requirements to a point where you can operate with a 100-watt transmitter, provided you do maintain the coverage requirements for covering city limits, grade A and grade B service. It doesn't help us very much as far as reducing costs are concerned, but I do have some figures here, and I would like to go into them.

Reduced costs have been achieved through the combining of aural and visual transmitters into a single transmitter, the elimination of duplexers and vestigial sideband filters, the application of vidicon cameras for both live and film pickup, and the introduction of other mechanical and electrical design features to make equipment simpler and more compact, easier to manufacture, install, maintain, and operate. All this has been accomplished without degradation of performance and reliability.

A transmitter power of 100 to 200 watts has in most cases been found to be sufficient with inexpensive tower and low grain antenna to adequately cover a radius of 5 to 10 miles. I say in most cases; there have not yet been very many stations of that power built, but there have been a sufficient number built to justify the statement that I have made. A suitable hill for the antenna and a higher tower will easily double this range, without increasing the power of the transmitter or spending very much more money.

Simplified operational layout—that is, of the facilities within the building—with facilities for film, network, off-air pickup, and local studio origination has been devised to reduce the operating crew to 1, 2, or 3 people, depending upon the elaborateness of the live show being produced. For program material other than live, one man is sufficient. This has been made possible through the use of a combination audiovideo control console equipped with remote film start-stop and slide-advance facilities.

What we have tried to do here is to pattern the operating requirements of a small TV station after a small local AM radio station where one man does everything. We have been quite successful in doing so for certain types of programs.

Facilities incorporating such features have just recently been placed into operation in Juneau, Alaska, for KINY-TV where a population of 10,000 is being served on channel 8. The equipment used at KINY-TV and costs are shown in the attached schedule A.

SCHEDULE A

Equipment for typical low power TV broadcasting station

Item	Quantity	Description	Price
1	1	VST-150 VHF transmitter, 150 watts, specify VHF channel, including 1 set of operating tubes and crystals.	\$6,450.00
1A	1	Substitute for item 1 if station is to be UHF: UST-150 UHF transmitter, 150 watts, specify UHF channel, including 1 set of operating tubes and crystals, at \$11,370.	
2	1	AV12-DM demodulator, VHF. Add \$10 for UHF channel, specify channel. Requires 7-inch rack space.	275.00
3	2	Design 614 CBVM Bell-Howell 16 millimeters TV projectors, includes pedestal and remote operation facility, at \$1,995.	3,990.00
4	1	Gray Telojector, 2 by 2 slide projector	695.00
4A	1	Optional substitute for item 4, Selectro-Slide Jr., 2 by 2 slide projector, with 7-inch lens, Spindler & Sauppe, at \$297.	
5	1	VA-19 video clamp amplifier.	185.00
6	1	2,200 TIC synchronizing generator, for rack mounting, including PS-12C regulated power supply and PS-14 bias power supply. Includes built-in linearity pattern generator. Requires 38½-inch rack space.	2,650.00
6A	1	410-A synchronizing generator, for rack mounting binary counter type, includes built-in power supply. Requires 10½-inch rack space, at \$1,850.	
6B	1	Optional substitute for item 6, 400-B synchronizing generator, portable type, complete, at \$1,500.	
7	1	VSTA-4 VHF vee antenna, 4 stacked elements, omnidirectional, 5 decibel power gain, specify VHF channel.	1,900.00

Equipment for typical low power TV broadcasting station—Continued

Item	Quantity	Description	Price
7A	1	Substitute for item 7 if station is to be UHF: USTA-8 UHF antenna, 8 stacked elements, omnidirectional, 9 decibel power gain, specify UHF channel, at \$3,500	
8	2	300-D Vidicon camera chains, portable, per tabular listing I, at \$4,600	\$9,200.00
8A	2	Optional substitute for item 8, 300-D Vidicon camera chains, studio type, per tabular listing II, at \$4,900	
9	1	A-069-3 film camera lens, 3-inch, F/2.5	88.00
10	1	A-069-1 live camera lens, 1-inch, F/1.5	98.00
10A		Optional additional lenses: A-069-2 camera lens, 1/2-inch, F/1.5 at \$99 A-069-4 camera lens, 2-inch, F/1.9 at \$88	
11	1	B-052-1 interconnecting cable, pulse, 1 required per camera chain in excess of 10	60.00
12	1	C-077-1 optical multiplexer, complete with stand and single field lens	245.00
13	1	C-080 film camera mounting pedestal	120.00
14	1	Gray Teloprojector mounting pedestal	195.00
14A	1	Optional substitute for item 14, slide projector mounting pedestal for item 4A consisting of C-0922 base, C-022 pedestal, and B-541 adapter plate, at \$100	
15	1	AVC-1 audio-video operating console providing audio, video, and projection switching control, with facilities for handling 4 audio and 4 video inputs with monitor and preview switching, and remote control of 2 film projectors and 2 slide projectors; includes CP-11, CP-14, and CP-15 panels, CU-2B console and audio amplifiers (2 preamps, 1 program amplifier and 1 monitor amplifier)	2,100.00
15A	1	Video mixing option: Add video fade and lap dissolve facilities, includes conversion of CP-15 to CP-15A by addition of switch row and fader mechanism, 2 VA-18 modular amplifiers for mixing and RA-8 rack mounting chassis (installed in AVC-1 at factory if ordered with AVC-1, otherwise available as a field modification kit), at \$330	
15B	1	TT-14B 3-speed 12-inch transcription turntable with cabinet, 106SP tone arm, 2 reluctance cartridges and diamond stylii, 602B equalizer, complete	350.00
15C	1	Audio preamplifier option: Add preamplifier (5116) and tray (5106) to AVC-1 console for converting high-level input to low-level input; includes operating tubes (installed in AVC-1 at factory if ordered with AVC-1, otherwise supplied as field kit), at \$409	
16	1	M16A master monitor	2,150.00
17	2	PS-12C regulated power supplies for M16A and audio-video amplifiers, requires 10 1/2 inches rack space, at \$280	560.00
18	1	CH-3A console housing with sliders, blower and filter; for M16A master monitor	370.00
19	1	CH-2A console housing, flat top, for portable Vidicon camera controls and power supplies	160.00
20	1	Relay kit for remote control of slide projector, item 4A, at \$30	
21	1	PS-13 low-voltage power supply, 24-volt direct current, 5 amperes, requires 7 inches rack space	235.00
22	2	K-56 Setchell-Carlson 17-inch picture monitors (camera monitors), at \$199	398.00
23	1	K-56S Setchell-Carlson 17-inch picture and sound monitor (announce monitor)	214.00
24	2	R-1 racks, with rear doors	184.00
25	1	A-072-1 camera tripod and friction head, heavy duty	150.00
26	1	B-030-1 3-wheel dolly	45.00
27	1	Senior Colortran lighting kit, code KSR	265.00
27A	1	TA-3 plug-in meter for checking power supplies and calibrating M16A master monitor	60.00
29	2	SP-2 side panels for operating console lineup, left and right, at \$5	10.00
30	2	SP-1 side panel: for R-1 rack, left and right, at \$14	28.00
31	1	Hewlett-Packard model 335E TV station monitor, aural modulation, and aural/visual carrier frequency monitor	2,050.00
32	1	AV12 rebr-adcast receiver, VHF. Add \$10 for UHF channel, specify channel	225.00
33	2	635 EV microphone dynamic, omnidirectional, at \$41.40	82.80
33A	2	420 EV desk stand for microphone, at \$12	24.00
34		Towers, on application	
35		Transmission line, on application	
36		Other accessories, on application	
Total			35,811.80

TELEVISION INQUIRY

TABULAR LISTING I

Portable broadcast equipment, single camera chain

Item	Quantity	Description
1	1	300-D camera, complete with electronic viewfinder, 3 lens turret, 6326 vidicon and all tubes.
2	1	700-D camera control, 3-inch waveform monitor.
3	1	800-A regulated power supply.
4	1	B-051-1 camera cable, 50 feet.
5	1	A-150-1 pulse terminating plug.
6	1	A-073-1 UG 260/U connector.
7	1	C-027-1 light shield.
8	1	A-357 power cord assembly.
9	1	B-249 cable assembly.
10	1	A-073-3 75-ohm termination.
11	1	A-247-1 pulse cable connector.
12	1	A-080-5 video cable 4 feet.
13	1	300-D instruction manual (IM-300-D) and Warranty Card.
14	1	800-A instruction manual (IM-810-A) and Warranty Card.

TABULAR LISTING II

Studio broadcast equipment, single camera chain

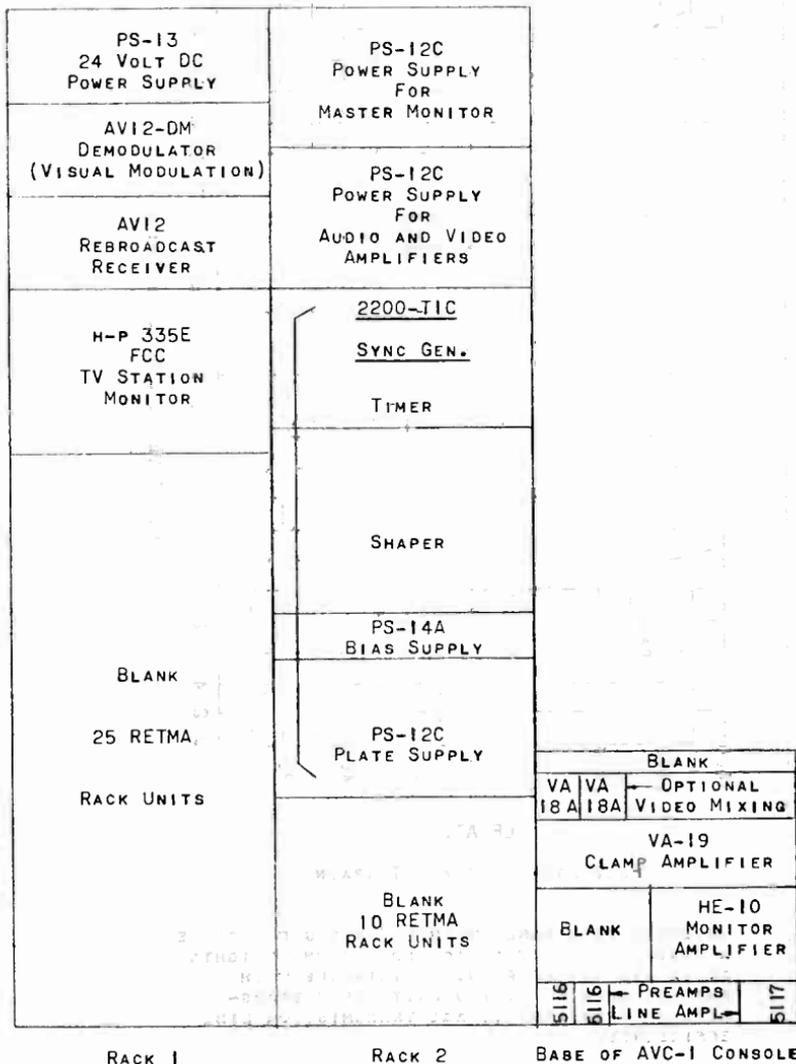
Item	Qty.	Description
1	1	300-D camera, complete with electronic viewfinder, 3 lens turret, 6326 Vidicon and all tubes.
2	1	710-A camera control console unit, complete with 10-inch picture monitor, 3-inch waveform monitor and electronically regulated power supply for camera, in console housing 13 1/4 inches wide by 36 inches deep.
3	1	B-051-1 50 feet camera cable (camera to camera control) complete with connectors.
4	1	A-150-1 pulse terminating plug.
5	1	A-073-1 UG 260/U connector.
6	1	C-027-1 light shield.
7	1	A-357 power cord assembly.
8	1	B-249 cable assembly.
9	1	A-187-1 AC cord.
10	1	A-073-3 75-ohm termination.
11	1	300-D-710-A instruction manual (IM-300D) and warranty card.
12	1	600-A instruction manual (IM-600A) and warranty card.
13	1	810-A instruction manual (IM-810A) and warranty card.
14	1	A-247-1 pulse cable connector.
15	1	A-080-5 video cable, 4 feet.

There is also shown a block diagram of the terminal facilities, an approximate floor plan layout and calculated distances to grade A and B contours on UHF and VHF for various antenna heights.

The curves shown do not apply to the KINY installation because obviously that is on VHF and UHF does not apply; but it was added to this exhibit as a matter of interest to show what can be done with a small, low-powered station.

DATE - 1 Nov. 1955

AUXILIARY EQUIPMENT LAYOUT PER SCHEDULE A



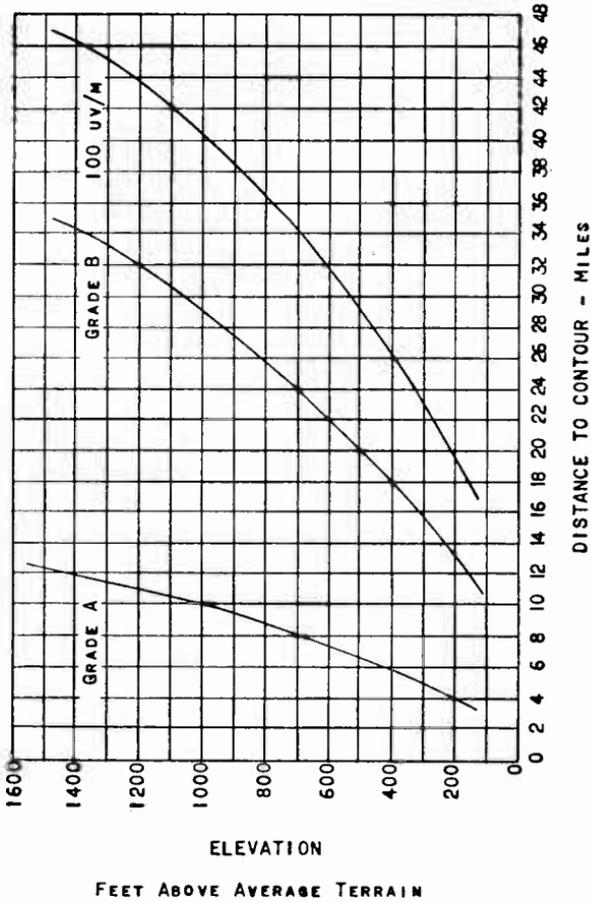
SCALE 3/16" = 1 RETMA RACK MOUNTING UNIT

REFERENCE: 5254

ADLER-ELECTRONICS, INC.
NEW ROCHELLE, NEW YORK

DATE - 1 Nov. 1955

CHANNELS 2-6 COVERAGE WITH 250 WATTS ERP



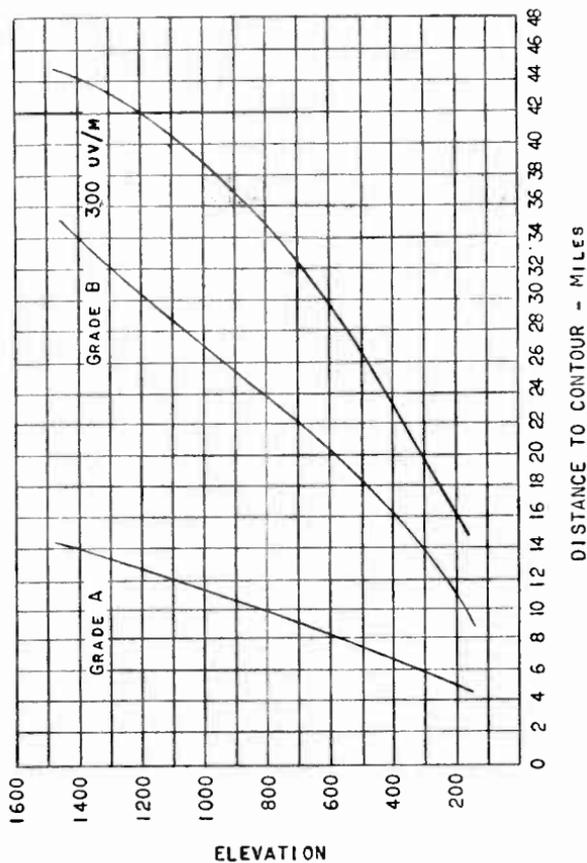
COVERAGE OBTAINABLE WITH 250 WATTS EFFECTIVE RADIATED POWER AT INDICATED ANTENNA HEIGHTS ABOVE AVERAGE TERRAIN. ATTAINABLE WITH ANTENNA GAIN OF 2, 150 WATTS PEAK TRANSMITTER POWER AND AVERAGE TRANSMISSION LINE EFFICIENCY.

REFERENCE: 5254

ADLER ELECTRONICS, INC.
NEW ROCHELLE, NEW YORK

DATE - 1 Nov. 1955

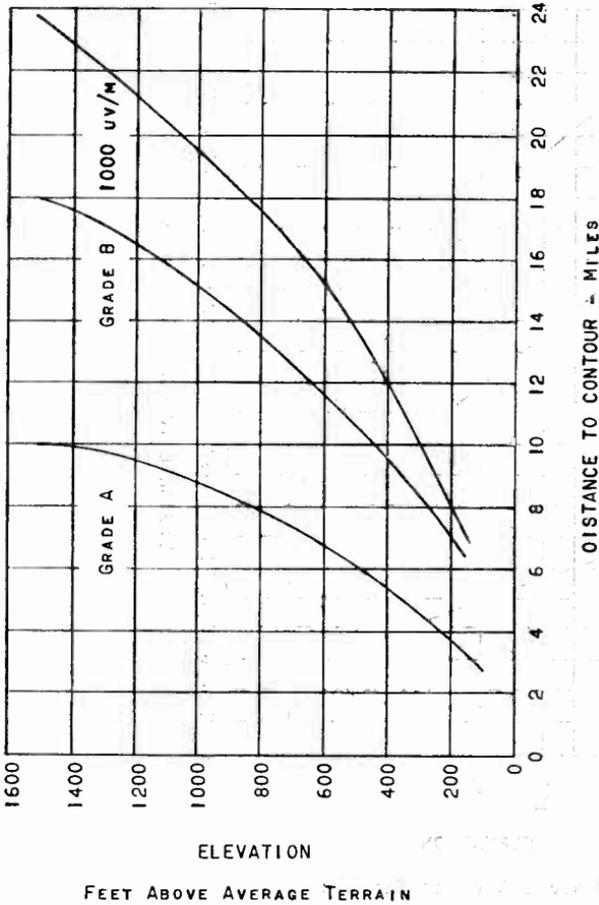
CHANNELS 7-13 COVERAGE WITH 500 WATTS ERP



COVERAGE OBTAINABLE WITH 500 WATTS EFFECTIVE RADIATED POWER AT INDICATED ANTENNA HEIGHTS ABOVE AVERAGE TERRAIN. ATTAINABLE WITH ANTENNA GAIN OF 4, 150 WATTS PEAK TRANSMITTER POWER AND AVERAGE TRANSMISSION LINE EFFICIENCY.

REFERENCE: 5254

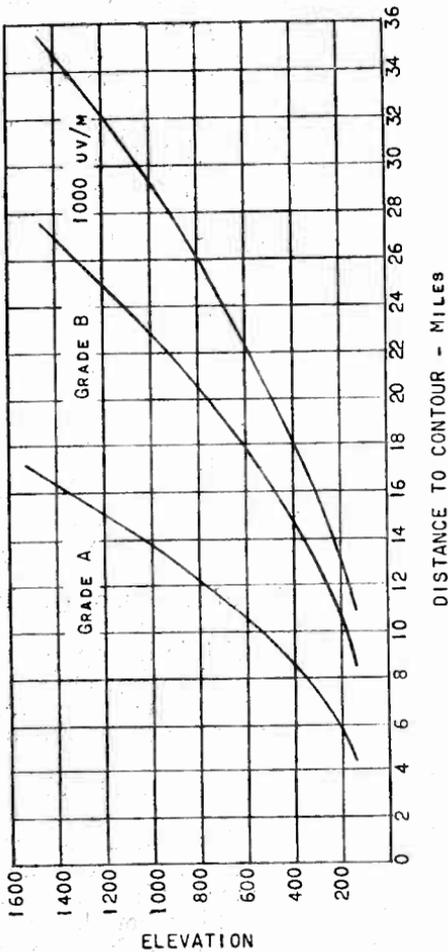
ADLER ELECTRONICS, INC.
NEW ROCHELLE, NEW YORK



COVERAGE OBTAINABLE WITH 750 WATTS EFFECTIVE RADIATED POWER AT INDICATED ANTENNA HEIGHTS ABOVE AVERAGE TERRAIN.

DATE - 1 Nov. 1955

CHANNELS 14-83 COVERAGE WITH 5000 WATTS ERP



FEET ABOVE AVERAGE TERRAIN

COVERAGE OBTAINABLE WITH 5000 WATTS EFFECTIVE RADIATED POWER AT INDICATED ANTENNA HEIGHTS ABOVE AVERAGE TERRAIN. ATTAINABLE WITH 150 WATT TRANSMITTER AND DIRECTIONAL ANTENNA, GAIN OF 50 IN MAXIMUM DIRECTION. HORIZONTAL RADIATION PATTERN 50° WIDE AT HALF-POWER POINTS.

REFERENCE: 5254

ADLER ELECTRONICS, INC.
NEW ROCHELLE, NEW YORK

To the equipment list shown totaling \$35,811.80 there should be added the cost of a building and land or space in an existing building, a tower, transmission line, shipping and installation costs, furnishings and fixtures. These extra costs might be as low as \$5,000, for a situation where TV is being added to an existing AM radio station; or as much as \$30,000 to \$100,000 where a new building and tower are being constructed for this purpose.

We recognize that you can lay out television programing and operating facilities for as much money as you want to put into it. The big trick is to keep the cost down. That is why I indicate here that it may go as high as \$100,000, and I must truthfully say it may even go higher than that if you are not careful in planning and laying it out.

The CHAIRMAN. Are these prices the same on U's as they are on V's?

Mr. ADLER. The U is somewhat higher for the transmitter and the antenna only. All the rest of the equipment is the same. UHF is still somewhat higher for the same power.

Senator PURTELL. When you say "somewhat higher," percentage-wise, what would that be?

Mr. ADLER. A case in point is the transmitter we offer. We have a VHF transmitter that sells for \$6,450, the transmitter itself, 150 watts. The same power on UHF is about \$11,000. That is the transmitter only, and you can see the transmitter represents about a third of the total outlay. The rest of it is approximately the same.

It so happens that on UHF it is a lot easier to get more gain in the transmitting antenna without spending a lot of extra money. In doing so, of course, we get more effective radiated power.

The information and data presented herewith is in support of my testimony to the effect that smalltown TV broadcasting facilities can be established with equipment readily available on the market for this purpose at costs that are, in my estimation, within the economical limitations of such operation.

The CHAIRMAN. This would apply, you say, to what Mr. Merryman discussed as a drop-in?

Mr. ADLER. It could be used as a drop-in. The particular instance that Mr. Merryman explained in his chart used, I believe, 20 kilowatts of effective radiated power. There are many places in the country where this type of station could be dropped in where lower power could be used and still obtain the 10-mile coverage, because of the wider separation between the existing stations.

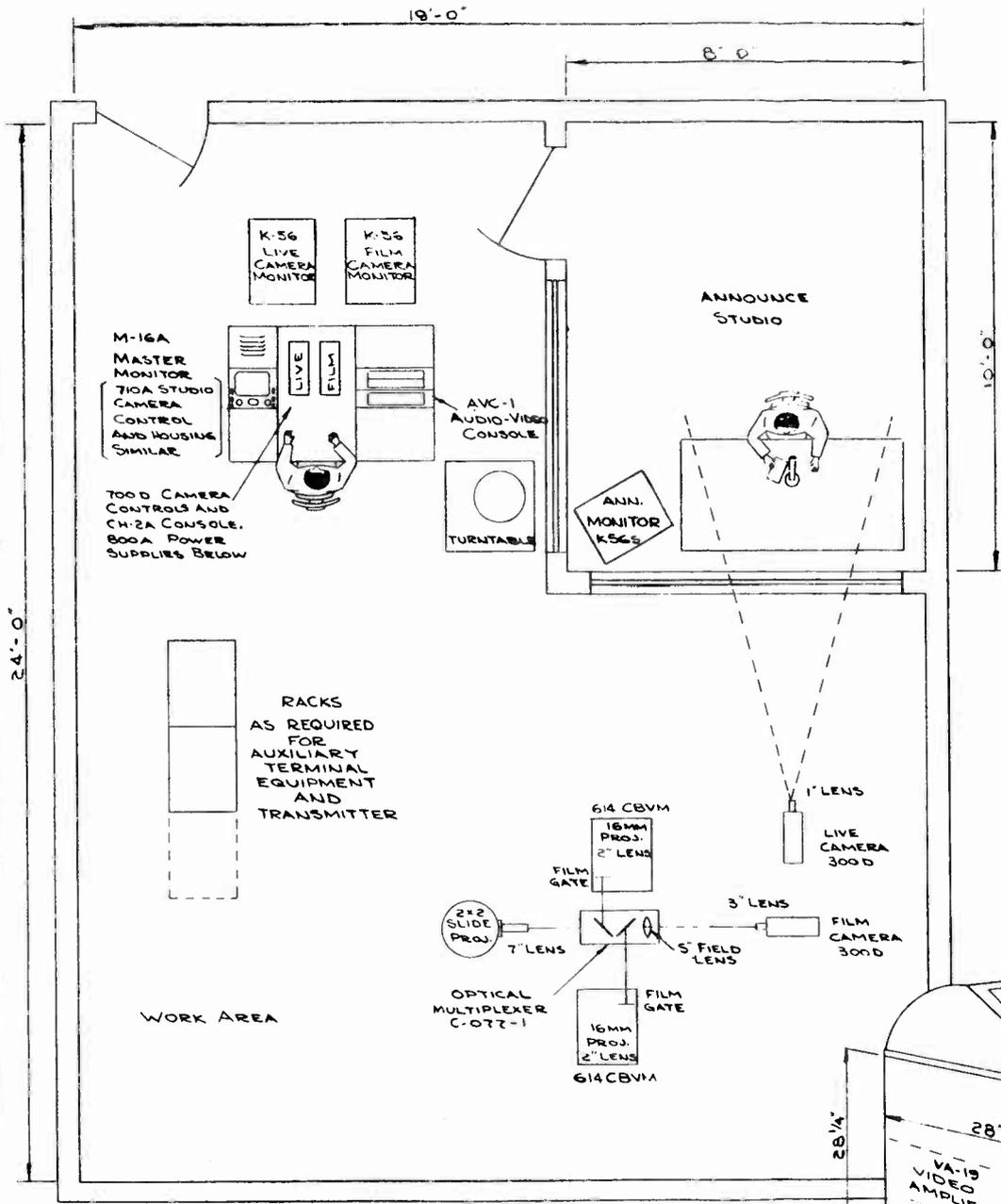
It is difficult to lay down a definite formula about the amount of coverage that you could get from a drop-in because of the spacing between existing stations in the flesh actually operating. Those allocated to the area are not spaced uniformly throughout the country.

The CHAIRMAN. It could be used probably more successfully in the western areas; could it not?

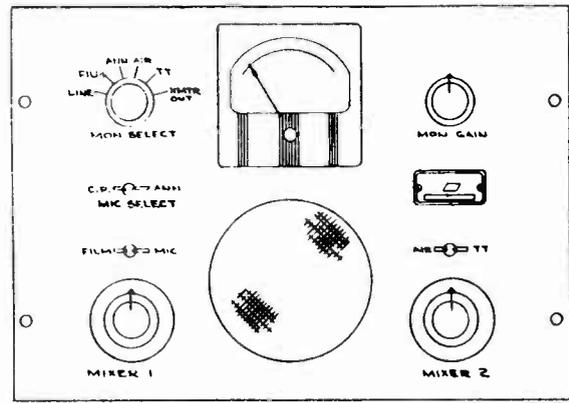
Mr. ADLER. That is probably true, where you do not have the overlap and where the existing VHF stations are not crowded as closely together.

Senator PURTELL. While it is economical in the light of what we know about stations of higher power and cost, still you have the problem, have you not, of profitable markets in which these may be located?

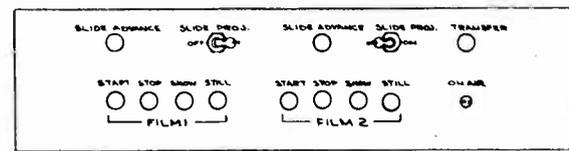
Mr. ADLER. That is a point that is a little beyond my capabilities and experience. I believe Mr. Merryman can answer that question a



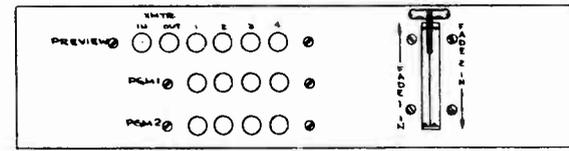
SCALE 1/2" = APPROX. 1'-0"



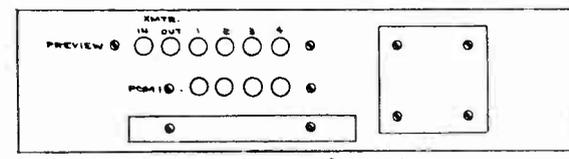
CP-14
AUDIO
CONTROL
PANEL



CP-11
PROJECTION
CONTROL
PANEL

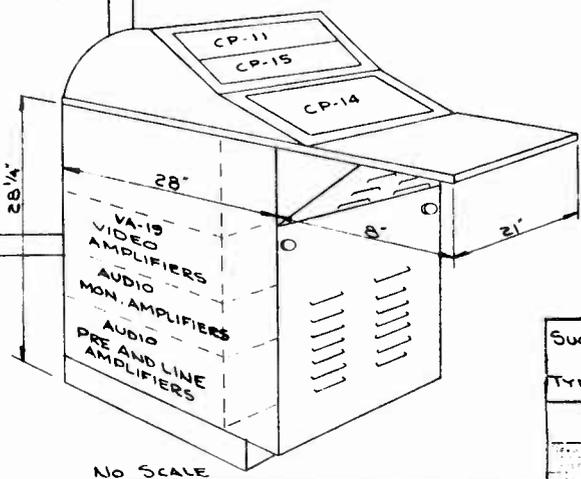


CP-15A
VIDEO
CONTROL
PANEL
WITH FADE AND
DISSOLVE



CP-15
VIDEO
CONTROL
PANEL
(MAY BE
MODIFIED TO
CP-15A)

SCALE 3/8" = 1"



AVC-1
AUDIO-VIDEO CONSOLE
PANEL AND ASSEMBLY
DETAILS

NO SCALE

REVISIONS	DATE	BY	DESCRIPTION
A	10-21-55	JW	CHANGED CHANNEL FROM 10 TO 11 FOR PREVIEW TO PREVIEW ON CABLE AND CABLE AND CABLE AND CABLE
B	10-21-55	JW	ADDED 10A 100V 10T-25

SUGGESTED FLOOR PLAN AND EQUIPMENT DETAILS FOR TYPICAL LOW POWER TELEVISION BROADCAST STATION

ADLER COMMUNICATIONS LABORATORIES

10 CAMPBELL ST. 27-55 ST. N. Y. N. Y.

APR 1-27-55

C-5254-34

little bit better because he, I think, has made a study of how big or small a market you need to produce the revenue required to support this type of station.

Senator PURTELL. I think it is an important question.

The CHAIRMAN. But as the costs come down with capital outlay, you can have the station in a smaller market, naturally.

Mr. ADLER. That is true.

The CHAIRMAN. It is like a newspaper and its market.

Mr. ADLER. That is exactly right. We have paid particular attention to attempting to bring the cost of operation down in relation to the initial costs, because that has been the thing that has broken the backs of a lot of stations that have not been able to develop enough of an audience to justify their existence.

Mr. MERRYMAN. When you operate at these small-town levels, you must necessarily do as the chairman says newspapers have done—tailor your operation to meet the economic ability of the community to support the operation. It is my opinion that the costs stated here by Mr. Adler can, in certain areas of the country, provide support for this type of station in a community of not more than 2,500 at its base.

Senator PURTELL. 2,500?

Mr. MERRYMAN. Population. That is assuming, of course, it is located in an area of high density, rural population around this small town. In the West where the rural population is less dense, the size of the basic community would have to be larger.

The CHAIRMAN. Does the Commission require so many hours on the air?

Mr. MERRYMAN. A minimum of 28 per week, I believe.

Mr. DOERFER. I think that there is some rulemaking under consideration to vary that.

The CHAIRMAN. But it could be made flexible, couldn't it? Supposing the cost of operating one of these stations is too great, say, for a 15-hour telecast. Even if they were only on the air for an 8-hour period, it would still be better than not being on at all—a one-shift operation I am thinking of.

Senator PURTELL. But this proposal fits in with another picture that you have been painting, Mr. Merryman. That is, not where they have no available television now, but in areas where they do have available television. Isn't that correct—drop-in stations?

Mr. MERRYMAN. Yes.

Senator PURTELL. So you really have an economic problem there.

The CHAIRMAN. Or both.

Senator PURTELL. You have both. But I think you just can't blind your eyes to one.

The CHAIRMAN. This could be done in small communities that do not have other stations. It could also be done in what you call the drop-in situation.

Mr. MERRYMAN. That is right.

Senator PURTELL. Where it would afford television in the areas where no television is presently available—of course that is one situation. Now you have got another situation, where you are fitting this to the area where there is television coverage, but you want to use it as a drop-in station. I think your economic problem there is one that

will give you a great deal more trouble than it would in an area where there is no present coverage at all.

Mr. MERRYMAN. Senator, I agree that the logic would seem that way. But the important fact is that the local stations would generate such a great percentage of loyalty among the local people, that that problem, in my opinion, has been greatly exaggerated.

Senator PURTELL. It may well be. I don't know. However, I do think that it is something that should be further explored. I think perhaps you agree with me.

Mr. MERRYMAN. We have explored it in Bridgeport. And we are quite ready to operate both a UHF station and a VHF station.

Senator PURTELL. You have a large market area there. I wasn't thinking of that so much as I was in other areas where the market range is substantially less.

The CHAIRMAN. But there is a great deal of difference, I think, if this is possible. I can think of communities out in my area, that are isolated by mountains and otherwise, of from 10,000 to 20,000 people. Anyone might be willing to take a capital risk on serving that area, as a local station, if his investment was \$100,000 or under, rather than if he had to make the investment that is now made in a regular television station.

Further, he would have a better chance, too, because those areas now are looking toward the idea that they might be served by cable, or by other means, which costs more and is practically subscription television. That is what it amounts to.

Mr. MERRYMAN. Senator, are those communities you are speaking of supporting radio stations or newspapers?

The CHAIRMAN. Yes.

Mr. COX. That is what I wanted to ask, Mr. Merryman. Could you or Mr. Adler give us some idea of what would be the comparison between these reduced costs of construction of a television station he has been discussing, and the present costs for constructing a radio station for one of these small markets—just roughly?

Mr. MERRYMAN. Roughly I would say about a third, wouldn't you, Ben?

Mr. ADLER. I would think so, for the initial cost. But you will probably find that using some of the new practices that have been adopted, the operating cost would not differ greatly, except for the cost of films and other programs.

The CHAIRMAN. Of course that is a big cost. But if it is a small radio station, some of the costs could be eliminated. They may have a little building and they may have a lot of the stuff around that would have to go into either radio or television, or both.

Mr. COX. That leads to the next question—in your opinion, if a radio station costing roughly a third as much to build is able to operate in a community of this size and make a profit, do you think that the greater advantages of television as an advertising medium and so on would enable an operator to get proportionately higher returns for his investment in television so that he could expect to make a profit and get a return on this greater investment?

Mr. MERRYMAN. Mr. Cox, let me say first of all that the original capital I don't believe is the important thing. After all, the interest on \$60,000 a year is not an awful lot of money, and that is what your capital would cost you. Let's say 6 percent on \$60,000 a year. That

is the cost of your capital, provided you can find the people who are willing to invest their money in this.

What really is important is what does it cost you to operate this facility? I can corroborate Mr. Adler's statements that we have of necessity been forced to this type of operation in Bridgeport, and that for more than a year now our television station has had two full-time employees. We have the services of an announcer who works on the AM station, who comes in and takes the announcements that have to be made during the operating period. We have the services of a secretary or a clerk, who prepares the program schedules daily that are set up by the station. Aside from that, we have operated this station with two full-time employees. We do put on local programs. We do on occasions go out with cameras and film local scenes and bring them back to the television station and put them on.

As a matter of fact, we have actually got into the film-production business. We found that we can produce, particularly for the churches, a 15-minute film program at so much of a reduced cost over what they would have to pay with other film producers, that they can afford to prepare these film programs and use them on television stations in other areas.

The CHAIRMAN. In other words, what you say is that it is possible with new equipment—and I suppose it might even get better as we move along; we always progress—that the high cost of running a TV station, particularly for small coverage, a small operation, can be cut down considerably.

MR. ADLER. There is no doubt about that.

Senator PURTELL. I was not finding fault, of course, with your statement. It is most intriguing—very interesting. However, isn't your coverage—I am talking about continuing costs—for a radio station, substantially greater than it would be for your TV station?

MR. MERRYMAN. That is not important, Senator.

Senator PURTELL. Isn't it as far as market goes?

MR. MERRYMAN. If you cover the retail trading area of your market, you serve the needs of the people in there. The coverage you get outside your retail areas is of very little importance to you. It does make a difference to networks. It does make a difference to people who buy spot advertising on a nationwide basis directly with the stations. But to your local merchant, so long as you are serving the retail trading area—and that is where your big revenue comes from—if you can meet the needs of the local merchant, that is all you need. It doesn't matter if you have X miles out beyond the area that your local merchant wants to draw trade from, or to serve the needs of the people in the community that need the service of television for that community.

Senator PASTORE. If that is the case, Mr. Merryman—and I regret I couldn't hear your statement because I had to attend another meeting; that is one of the problems we have around here of trying to be in two places at once—if what you say is true, then why is there so much pressure on the part of the station to ask for more and more power?

MR. MERRYMAN. I think they are greedy, Senator. This national business—except for the network business which is relatively unprofitable to an independently-owned station—the national business is quite a bit more profitable than local business. You don't have

to service the national business as much as you do the local merchant, and you generally sell the national business at higher rates. So your cost for putting it on the station is lower and you get more money for it. As I said, if you expand the service area of the station, you can convince the chainstore that wants to service all the stores that he owns in a particular area by one buy—naturally it is attractive to him.

The CHAIRMAN. Mr. Merryman, you mentioned simultaneously televising both VHF and UHF; if you put the two of them together, does that cost extra? I don't know the details of that.

Mr. MERRYMAN. It would cost more, Senator. We have either got to do it, or go under.

The CHAIRMAN. So the record will be straight, by that you mean the same program going out on both UHF and VHF?

Mr. MERRYMAN. That is right.

The CHAIRMAN. The studio setup would be the same, would it not?

Mr. MERRYMAN. That is right.

The CHAIRMAN. Would you have two different cameras?

Mr. MERRYMAN. You would have 2 different transmitters—1 for VHF.

The CHAIRMAN. Two transmitters?

Mr. MERRYMAN. That is right.

The CHAIRMAN. The program is the same until it gets up to the transmitters, and then one puts out the U signal of that program and the other the V signal.

Mr. ADLER. You could use a common tower which is quite satisfactory. You have to have separate antennas, separate transmission lines going up to the tower.

Mr. MERRYMAN. But you see, this adds capital cost to the station but it doesn't add operating cost, except for the power you use in the transmitter and the cost of keeping the transmitter in operating condition.

Senator PURTELL. This opens up another avenue of thought: If you were doing this simultaneously in a trading area—let's take in Bridgeport, for instance, where you tell us there is only 10 percent conversion—if simultaneous broadcasts were made both on ultra high and very high, would there not be reluctance to spend the money to make a conversion? Or do you think, however, that this would be a normal result of a desire to get newer sets in the course of time? Is that what you are thinking of?

Mr. MERRYMAN. Senator, you get down to that problem, and it is a problem that I have pondered long. As the chairman has said over and over again, what you finally get back to in this whole question is the all-channel receiver. What we are talking about is a competitive problem. When we say "monopoly," what we mean is that the Commission has allowed the big stations wide coverage so that they have covered the small communities. Then when you try to come in there with a UHF, which is the only thing available to you, you can't compete. Far from our asking for restrictions on competition, we are asking that restrictions on competition be lifted.

It is our hope that in this whole thing we can give the manufacturer sufficient incentive so that it will be to the manufacturer's interest to manufacture all-channel receivers.

Mr. Cox. I don't see how you have accomplished that in what you are discussing so far, Mr. Merryman. You are taking your station, for instance, and converting it to a V. There will be no incentive for the consumer, the viewer, to buy an all-channel set.

Mr. MERRYMAN. Exactly, and the problem is whether we can create sufficient predominantly UHF areas so that a sufficient percentage of the production of the manufacturer will make it profitable for him to shut down his VHF-only production lines, and manufacture nothing but all-UHF receivers. At that point—and that is why I say normal replacements—at that point every receiver that came into Bridgeport would be an all-channel receiver.

Mr. Cox. Then to do that, wouldn't it be true you would have to limit the use of drop-in V's to those areas which were already predominantly V, so that in effect you deintermix them to all-VHF, and require that a local station of this sort in the West should be on a U channel, even though there might be an available V channel there?

Mr. MERRYMAN. The first question, where there is a predominantly VHF area, you have to drop in a V. Where the area is predominantly U—and I don't mean by that all-U; I think you can have 1, and in some cases 2 VHF stations operating in the same community with UHF stations, and at the same time come out on top with a UHF operation. But if you were going to drop in additional stations in that community, you would drop in U's. You would not put in more V's which would retard this business of setting up an incentive for the manufacturer to manufacture all-channel receivers.

Senator PURTELL. May I pursue that a bit? I think maybe I have overlooked something in my questions to you. That may be what you intended to convey; it is not as clear as it might be. Am I correct in thinking that what you had in mind, if you had VHF and UHF simultaneously broadcast out of your local station, that you would then create a desire on the part of the listeners—because of the attractiveness of your local programs and the interest in your local things—to switch over to ultrahigh? Is that what you have in mind?

Mr. MERRYMAN. That is right. You heard these people here this morning. These are community leaders. They understand what the problems of the community are. They know what a local television station means to them. These people will spend the money to get our local channel—even though one of them said that she didn't spend the money, even as important as she thought it was.

How are we going to convince all the people in the Bridgeport area that we can give them a television service that will in most respects be much better than the service they are getting out of New York? You have got to prove it to them, and if you never have a chance to prove it to them, you just can't sell it.

Mr. Cox. Isn't this true, Mr. Merryman: The only incentive to the man in Bridgeport if he becomes interested in your program—that is, you are given a drop-in V for 5 years or some alternative period and you can operate simultaneously so he can get your program on a V—but he is put on public notice, as I get it, that at the end of 5 years, if he wants to continue to get your programs, he must at that time have an all-channel set.

Mr. MERRYMAN. No, sir. When 85 percent of the sets in the area can receive the UHF station, we are perfectly willing to go back to the U.

Mr. Cox. Yes; but throughout this period, as far as the first 5 years are concerned, he can get your programs. He can turn off the New York stations and get your programs on VHF.

Mr. MERRYMAN. That is right. I do not argue with you for a second that we are specifically in Bridgeport providing the incentive to purchase the all-channel receiver.

Mr. Cox. Except that, as I understand it, at the end of 5 years, with or without conversion under your proposal, you would go back to the U?

Mr. MERRYMAN. No, sir. If we get 85 percent before 5 years.

Senator PASTORE. But that is the question. I do not follow that. What inducement is there going to be to a person who has a V set to change or convert to a U, or go out and buy a U, if he can get your program on a V? I do not follow that. Someone will have to explain that to me.

I see your point. If tomorrow we could invent some gimmick whereby every set in this country now in existence, or every new set, would become an all-channel set, I don't think we would have very much of a problem. But the question is: How do you do this?

Mr. MERRYMAN. I understand your difficulty, Senator, and it is something that has given me a lot of difficulty, too.

Senator PASTORE. It isn't a difficulty with me, as much as it is understanding the point you are trying to make.

Mr. Cox. Isn't this what you said, Mr. Merryman? The VHF channel would be authorized for use by a VHF permittee or licensee, which is yourself, only until the expiration of 2 years after 85 percent or more of all receiver production is composed of all-channel receivers, or until the expiration of 5 years after the date of the grant? In other words, if in 5 years you do not get 85 percent, you are back on UHF anyway under these terms.

Mr. MERRYMAN. I am afraid there has been some text left out—that should be “whichever is longer.”

Mr. Cox. It is in there. Five years is the cutoff.

The CHAIRMAN. It gives them 5 years—

Mr. Cox. I see. You say if within that time you don't have 85 percent, you go on indefinitely?

The CHAIRMAN. He goes on to explain that there later on. You are near the end of your statement here. You are getting into color now, and you are probably hopeful that at the end of 5 years everybody then will have the color set and probably it will be all-channel. What is the normal turnover—about 3½ or 4 years?

Mr. MERRYMAN. There have been so many advances made in the design of receivers that I think the normal replacement cycle is quite fast.

The CHAIRMAN. Let me ask you this—and you need not read this about color, because we have heard it.

Mr. MERRYMAN. May I, however, Mr. Chairman, on this subject of color, read you a letter and a telegram?

The CHAIRMAN. All right, but let me ask you this. We have been somewhat intrigued with the idea, as the Senator from Rhode Island pointed out, with the problem relating to sets, which is one of the real problems involved here. We do not know how we can handle it now. The manufacturers do not know how, except to take the tax off. It is most exasperating because it involves, from the best information I

got from all the manufacturers, between \$8 and \$12 a set in manufacturing costs at the factory on a production line. This whole problem is revolving around \$10.

When it gets to the retail outlet it is a little different, but here is this small amount that is causing a great deal of this trouble. Now along comes color, and it will move just as fast, of course, as people acquire color sets. The more sets that are acquired, the more programs the networks will put on the air in color. If you have any ideas as to how we can get this little bud that is starting to bloom now and have it bloom right, then maybe in that 5-year period we might not have so many of these problems of UHF and VHF.

Senator PASTORE. Will the chairman yield at that point?

The CHAIRMAN. Yes.

Senator PASTORE. I think one of the Commissioners said that there is no guaranty that these color sets are going to be all-channel sets. That is the thing that is bothering me. We may be still with this same problem.

The CHAIRMAN. There is no guaranty, but I think maybe if we got started right here, we are getting down to the question of \$8 or \$10 and maybe less as we move on. There would not be much reason why a person buying a color television set, which would run X number of dollars, should not for his own protection pay that little extra amount for an all-channel set.

Mr. MERRYMAN. Senator, may I answer your question in two parts. First, I do not believe you were here yesterday when Mr. English, from Raleigh, N. H., testified.

The CHAIRMAN. I was not.

Mr. MERRYMAN. He came forth with a very novel suggestion. I do not know whether it would work or not. It would work if it were put into effect, I think. But what the legal proposition would be, I do not know.

He suggested that, instead of taking away the tax, you raise the tax on VHF-only receivers to 15 percent and reduce it to 5 percent on all-channel receivers.

The CHAIRMAN. That is not new. I suggested that to the Finance Committee as an alternative to taking the tax off altogether. But what I was thinking of was that, without changing the law, we might be able to eliminate color sets from the tax on sets. I do not know. We are exploring that idea.

But you are right. If we could do that, then the Treasury should not have too much complaint because the same amount would be coming in. But the incentive then would be to buy the other sets, and then the returns from the tax would gradually dwindle as we move up in the other. But that would be worthwhile.

I still repeat: I think if the people who run the finances of this Government knew what a little thing the tax is in comparison to the trouble this thing is causing the whole economy of this industry—what a little thing that tax amounts to, which would help clear it up—I think it would be fair to give a little.

Mr. MERRYMAN. I did some thinking about it last night, Senator, and it occurred to me that maybe you do not have to reduce the tax at all. Just raise the tax, say, 25 percent on VHF-only receivers, and very quickly you will find the manufacturers stopping the manufacture of them.

The CHAIRMAN. We could do that if we had only this problem to deal with. But when we amend a tax bill around here, we open up Pandora's box and everybody gets into the act.

That is frankly why the Finance Committee is reluctant. I think if we could take this problem all by itself we might be able to make some progress.

Mr. MERRYMAN. It was an intriguing idea. I do not have any faith in the excise tax being the solution to the problem. I think in our system of free private enterprise in this country, there might be considerable objection to that approach to the solution of the problem. What we really need to do is to provide the incentive to the manufacturer, to make it profitable for him to manufacture the all-channel receiver.

In connection with your question on color, I would like to read you a letter—

The CHAIRMAN. Or if it is not going to make too much difference to the manufacturer in the long run, since the difference is only \$10 or \$12, there ought to be some way we could provide the incentive so we could get these sets out.

Mr. MERRYMAN. As I said, Senator Pastore, I have pondered this problem long and diligently. Last Friday I called Dr. W. R. G. Baker, who is a vice president and general manager—

The CHAIRMAN. If you could speak a little louder, Mr. Merryman, I do not think a lot of the people in the back can hear what you are saying.

Mr. MERRYMAN. I wrote Dr. Baker, who is the vice president and general manager of the electronics division of the General Electric Co., and I think he is the chairman of the allocations committee of the Radio-Electronics-Television Manufacturers' Association. I had talked with him on the telephone Friday morning and discussed the proposition with him. As a result of discussing that with him, I sat down and wrote him this letter. It is dated February 24:

It was a pleasure to talk with you this morning on the general problem of how to provide for a wider distribution of UHF-equipped television receivers in our economy. I quite agree with you that it is unreasonable to expect manufacturers to market all-channel receivers unless there is a widespread incentive on the part of the consumer to buy the receivers and I further agree with you that the only real solution to this problem is to provide the incentive to the consumer so that the manufacturer in turn will have a market.

As I told you during our conversation we would expect that the UHF islands would provide such incentive but we also feel that this incentive would be substantially enhanced if color broadcasting were restricted to UHF. Thus, instead of saddling the public with additional billions of dollars invested in color television receivers that would not receive the UHF stations, we could insure that all color television receivers produced would be equipped for UHF. Since large-scale distribution of color receivers is only just beginning and since nearly all color receivers so far manufactured are equipped for UHF, such a plan would protect the public from an investment of doubtful value and would insure that the UHF frequencies could be restored to a useful status within at least the normal replacement cycle of the consumer.

An essential part of the success of this plan would be that the existing VHF stations be authorized a companion UHF station on which to broadcast the same programs in color that are broadcast on the VHF station in black and white. The restriction on the use of color to UHF only could be discontinued at some period in the future when there are sufficient television receivers equipped for UHF in any community to make UHF competitive with VHF.

This, of course, would work a temporary hardship on the existing VHF operations inasmuch as they would have to provide unscrambling equipment so that only the black and white portion of the color signal would go out on the VHF

station, and that they would be required to simultaneously operate both UHF and VHF if they would broadcast color.

However, if UHF stations proposing a temporary VHF drop-in as a companion station are willing to undertake to broadcast on both UHF and VHF, this temporary concession in the interests of a healthy national television system is justified. The public, of course, would not lose since the receivers would receive color on either UHF or VHF.

I was pleased to have your endorsement of this proposal in view of the testimony last Tuesday of Commissioners Hyde and Webster, and of the chief engineer of the Commission, Ed Allen, that a better color picture is achieved through a UHF system than through a VHF system.

My purpose in writing you is to obtain your consent to my introducing this letter into the records of the Senate Interstate and Foreign Commerce Committee during my testimony on behalf of hometown television next Tuesday morning. I will call you some time Monday relative to this.

Late last night I received this telegram. The telegram is from Syracuse. It is addressed to me.

This will authorize you to express my general concurrence in the proposal that restricting color to UHF broadcast stations would be one way in which to give vitally needed support to the use of UHF channels. I do not understand your reference to the necessity for unscrambling equipment. I would not think this would be required as a technical matter. If you wish to express my concurrence, I request that it be done by submitting this telegram.

W. R. G. BAKER, *GE Co.*

The CHAIRMAN. Now, if you will proceed with your statement, Mr. Merryman.

Mr. MERRYMAN. Mr. Adler just tells me, with reference to the unscrambling equipment, that RCA sells a color killer filter for \$25.

The CHAIRMAN. That would be in the transmitter?

Mr. MERRYMAN. That would be at the transmitter, you see. Under the compatible system, the receiver can take the black and white portion of the color picture and you get a picture.

The CHAIRMAN. I just want to ask one question. All of the color sets now, as far as we know, are being manufactured all-channel. Why would that not continue in the future?

Mr. MERRYMAN. Senator, you eventually get down to a local guy trying to sell a product to somebody who wants to buy it at the cheapest possible price. That is our system of free competition.

The CHAIRMAN. I understand that. That would come about if some manufacturer could make a set cheaper for sale, a color set, without making it all-channel. Is that not correct?

Mr. MERRYMAN. Some manufacturer who would not comply, let's say, with an expression of intent on the part of the big manufacturers and the association. Some other manufacturer sees his chance to get a big market all of a sudden by selling a cheaper color television receiver. So he forces the big manufacturers to also come out with the cheaper sets, and your UHF is then gone.

Senator PASTORE. Take New Haven, for instance. The only station in New Haven is a V station. If you followed your idea of having color go on only through U, what would the people in New Haven do?

Mr. MERRYMAN. As I said, part of this plan involves the necessity to authorize the V's to operate a companion UHF station.

Senator PASTORE. I see. In other words, in the example you have given, a station like the New Haven station would also be authorized to transmit in U?

Mr. MERRYMAN. Yes.

The **CHAIRMAN.** Somewhat like AM and FM in radio stations.

Mr. MERRYMAN. Yes; and may I remark here that, as I recall—and I do not recall all the circumstances specifically, because it has been a long time ago—I think the Federal Communications Commission spent years examining the proposition of what number of lines gave the best picture on television before they set the standards—the technical standards—for the picture to be produced. If, as the Commissioners and the chief engineer testified, technically you do have a better result through the UHF system, then I think that fact alone justifies the restriction of color to UHF.

The **CHAIRMAN.** It is getting late. If you would proceed, Mr. Merryman.

Mr. MERRYMAN. I am, happily, about through, Senator.

The **CHAIRMAN.** I think you can skip the color. We will put that all in the record. We talked about that quite a bit.

Mr. MERRYMAN. Still in terms of these longer perspectives, let me leave with you two final thoughts. Color television is today still in its infancy—about where VHF stood when the FCC froze it. It is possible now in the development of color television to avoid a repetition of the mistakes the FCC made with UHF. Color television belongs on the UHF band—and for the reason that an industry committed to color on UHF will work with greater energy and ingenuity and resources than any Government commission can ever summon to see to it that America is converted to the all-channel receiver.

Finally, I would like to repeat something I said earlier: I am the operator of a UHF station in a VHF area. I have lost money every month since we began operations back in 1953. For 2 years now we have existed on the hope that the Federal Communications Commission would do something about their rules and their engineering standards to give us some relief so we could compete.

We are still a noncompetitive system. As I said before, what I am kicking about is not that I care if the New York stations cover Bridgeport. We have licked them in radio. What I am kicking about is I cannot compete with the New York stations in my own town.

I see no immediate prospect of making any money. All that keeps me in operation is the hope that something will be done to make it possible for me to compete on even terms with the VHF monopoly of the air. But hope, gentlemen, is a tender flower and my resources are very nearly at an end. I am quite sure in my own mind that unless there comes from these hearings some positive mandate to the FCC, my hope and my resources will give out very quickly. The only justification for pouring money down a rathole is the expectation that someday I will get it back. If I cannot see how it will ever come back, I must close down—and I will.

I have just spoken in the first person singular—something I have tried to avoid in this testimony for hometown television. But I know, and you must also know, that my words are echoed to the last comma by very nearly every one of the 95 UHF operators still on the air. For the 75 or so stations, UHF stations, that are now losing money, I see nothing ahead but more losses, and they are going to shut down.

You have got, on the Commission's latest figures, 18 stations that are making a profit. You can't justify assigning all that vast fre-

quency spectrum of the UHF in order to accommodate 18 stations. So the whole UHF is going down the drain.

What is needed now—by us, by the FCC, by the American public—is an affirmative statement of policy from you gentlemen—a statement of a policy which will give us what I might describe as the “business hope” to keep going until equity can catch up with us.

If I may paraphrase you, Mr. Chairman, in your statement at an earlier session of this committee, “There comes a point when you have to say ‘Yes’ or ‘No.’” Now the point has come when somebody must tell the FCC what its policy is, what this country needs in the way of a national television system.

If no action is taken, then not only will we go under, not only will television be denied forever to America’s hometowns, but we will by the sheer force of inertia be delivered into the hands of a monopoly of 3 men: The presidents of the 3 networks. Such a monopoly will, we know, freeze the whole industry; freeze the art of television; freeze the TV film industry. And such a monopoly will inevitably in the public interest require the most stringent type of Government regulation, Government legislation, Government policing.

We are, in fact, at a moment of crisis in the history of communications, and our duty now is to recognize that this is a crisis; the perspective of history will make this fact plain enough. The first step toward saving hometown television must be taken in the minds of the Commissioners. They must concede that UHF and hometown television can be rescued by a series of immediate, forthright, and affirmative actions well within the scope of their own authority. This done, the vista is fine:

1. The present retreat into a stifling and dangerous monopoly will be ended.

2. The television industry will obtain better and closer coverage, better programming, more return for the advertising dollar, and—in short—more television.

3. America will get hometown television, an essential aspect of its democratic tradition.

The CHAIRMAN. Mr. MERRYMAN, I want to thank you. That is a very interesting and very well-prepared statement. We appreciate getting your views on this matter.

Mr. MERRYMAN. Thank you, Senator.

The CHAIRMAN. I think the counsel has some questions—just a few—and then the Senator from Connecticut.

We will take a short recess.

(A short recess was taken.)

Senator PURTELL. I wonder if I might make just one observation.

Mr. Merryman, what you have pointed out here in your testimony—and I might say it was most interesting and I think most informative—you pointed out you feel what you are asking for, are you not, is an opportunity to let the hometown, the local community, see what can be done with a television station operating so that at least more than 85 percent of the people will have that opportunity of judging that program? Is that it?

Mr. MERRYMAN. Well, Senator, that is right. But I might say that I have no doubt about the outcome. Give us the opportunity to compete. We know what the result will be.

Senator PURTELL. I think your whole testimony rather pointed out the fact that if the hometown can have the listeners there, that they would want to continue to get that hometown program.

Mr. MERRYMAN. Yes, I am sure they would. We have proved it in radio—newspapers have proved it—and I see no reason why the same philosophy wouldn't work with television.

Mr. Cox. One point I would like to clear up, Mr. Merryman, for the record is this. You do not say, do you, because the map which CBS submitted, and which you have used, shows 100 markets, that those are the only areas in which CBS would contemplate that there would be television stations?

Mr. MERRYMAN. I thought I made that clear in my direct testimony, that the CBS proposal as such does not propose a restriction to those markets. What I did say was that the inevitable result of creating such a triopoly among three networks would freeze all other competition and as a practical result they would be the only stations that could survive and operate.

Mr. Cox. Except that if there were V's in that large blank space in the upper Middle West and in the intermountain areas, they would presumably still be able to stay on the air because they are not in direct competition with any of the other principal markets.

Mr. MERRYMAN. That seems like a surface answer. It is one you immediately come to. But consider that this is a sterile concept; that here they are proposing that the only market for the output of television be in these 100 markets. That is, as far as the networks are concerned. So you freeze everything down the line. You kill all of the initiative of the creative thinkers in the field of programs, in the field of engineering, in the field of the television industry. You stop effectively the working of free private enterprise. In my opinion—and it is shared, I think, by a great many others—the practical operation with this sterile concept would be to freeze television at the point which we have now reached.

As I tried to point out when I was showing you the income situation as between newspapers, radio, and television, the ultimate destiny of both radio and television is where the newspapers now are. After a very full history of serving the public interests of communities throughout the land, after 34 years, radio is almost there. Television is only 10 years old. It may be another 25 years before television finally becomes fully practical as a strictly local medium. But that time is coming. It is coming inevitably if we put the machinery there for free private enterprise to operate in.

Mr. Cox. That is, your feeling is that with this emphasis upon a television system designed to serve the 100 principal markets, there would be no incentive for independent film producers to go on producing programs other than those which could be absorbed by television networks, and that outside of that there would be no freedom for growth.

Mr. MERRYMAN. Exactly.

Mr. Cox. As I understand it, it is your proposal that the power of existing V stations be cut back only where this is necessary to ac-

commo­date a V drop-in such as you propose on channel 6 in Bridgeport.

Mr. MERRYMAN. Let me clear that, sir. We do not propose that any VHF station reduce its power. What we are talking about in technical terms is the matter of interference. The chart is gone now, but we showed you how the drop-in station would push back the uninterfered service area of the V station.

We did this deliberately for a number of reasons. First of all, previous witnesses here have shown you that sometimes even a very strong VHF signal is inadequate, even in the market in which the TV station is located. So there is no justification for cutting back the power that the people in that hometown market—with what is now a wide-coverage VHF station—can enjoy.

Secondly, we wanted to leave their plants in such condition that when the time came that competition was restored, without any additional expense to them they would regain the service areas they lost temporarily in the interests of national policy.

Mr. Cox. In other words, neither the station operating on channel 6 in Schenectady, nor the one in Philadelphia, would reduce its power. Each would simply lose some of its service area because interference would be created in a portion of that area.

Mr. MERRYMAN. According to the FCC standards. I say no one would lose service because the FCC standards do not take into account the effect of the antenna and the receiver.

Mr. Cox. If you were permitted to operate in Bridgeport on channel 6, this would still leave the people in Bridgeport with the choice, if they wanted it, of tuning in the 7 stations in New York. That is true, is it not, sir?

Mr. MERRYMAN. That is true, if some other drop-in station doesn't cut back.

Mr. Cox. Suppose the man in Waterbury—where there is a U station on the air—wants a channel, and the only channel available to him is one which is going to duplicate, or at least be adjacent to—as they all are—a channel in New York. Isn't there a danger that if you bring hometown television on these terms to 6 or 8 communities in Connecticut, all large enough to deserve it, that you will have created interference which will block out the signals of those New York stations and will have reduced the choice of programing in the area?

Mr. MERRYMAN. First of all, sir, let me point out that only 7 of the channels are used in New York City, so it is not inevitable that Waterbury can find a berth only on a New York channel. However, if he could, then I think the public interest of the Waterbury population would justify cutting back the New York station, except that you don't cut it back inside its own trading area.

Mr. Cox. What is the minimum separation in zone 1 for an adjacent channel?

Mr. MERRYMAN. Sixty miles.

Mr. Cox. Would that permit the location of channels, spaced between those in New York, in central and western Connecticut?

Mr. MERRYMAN. I think, counsel, in view of the considerable advances that have been made in the technical considerations of the receiver, that that adjacent channel separation will also be substantially reduced. I would like you, if you would, Mr. Adler, to comment on that briefly.

MR. ADLER. There are a lot of ramifications to the problem of channel separation. It seems that when the third order was prepared, which ultimately ended up with the sixth order and report which is now the bible of the industry, which sets forth all the rules, the separations for the various channels—that is adjacent channel and cochannel—were determined pretty much by several factors. One of the important factors was the ability of the receiver to reject an unwanted signal. We all know that receivers have improved tremendously since that original order was written. While we certainly wouldn't want to set up adjacent channels in the same town, I think there are a lot of us who firmly believe, based on measurements that have been made, that the separation of an adjacent channel could be made less than it is now—that is, the 60 miles for VHF and 55 for UHF.

To go a bit further on that matter of drop-ins and changing of separation of stations, I believe that a very important issue has been overlooked in connection with a lot of statements made about that in connection with UHF. We know now it is very difficult, even in the UHF channels, to find a drop-in UHF channel that will fall in line with FCC rules as they are now written. That is because there is a long list of what are called taboos on the location and spacing of stations.

Here again all of these spacings are based on receiver performance. Of course we know that UHF receiver performance has been pretty poor. But it is very difficult to find any of the receiver manufacturers who will admit that their receivers won't do better than the sixth order requires them to do, or states they will do. For instance, right now on UHF we can only space stations six channels apart in the same city. That all ties in with interference between IF's, sound and visual, and other stations. But the point that I want to bring out is that a lot of these so-called taboos on spacing which are now listed in the rules, certainly could be relaxed to a point of not degrading the signals to any extent whatsoever.

Some of us feel that separation between stations, for instance on VHF, 170 miles separation, is something that should probably be relaxed considerably because of directional receiving antennas. The receivers are a lot better.

SENATOR PASTORE. Let me ask you a question: Do you think that will straighten out the situation in the cities surrounding New York, or adjacent to New York, and still leave the seven channels in New York City?

MR. ADLER. I haven't personally made a real study of it, but looking at other data that has been prepared by qualified people, I believe that it can be done, and leave the seven stations there; yes. Of course what will happen is that these stations will no longer cover places like Kingston, N. Y., 90 miles away.

SENATOR PASTORE. Don't you come down fundamentally to the question that was asked: That can only be done by reducing their power? Let's face it.

MR. ADLER. I don't think you have to reduce the power, but it might be a help if they did.

SENATOR PASTORE. I am not quarreling about that. I say that maybe that is the desirable thing to do, but we have got to face the realities.

If you are going to begin to drop-in these stations, then I say they should be dropped-in. As a matter of fact, I have been asking them to drop one in Providence—

Senator PURTELL. A particular one. [Laughter.]

Senator PASTORE. You have got to face it. You have got to cut down some of the power of existing stations in adjacent cities. In my city, if you want channel 4 or 7, you have got to tune in Boston. Why does anybody who wants to tune in these channels in Providence have to tune in Boston? Why should Boston be servicing the city of Providence any more than New York should be servicing your city of Bridgeport?

Fundamentally, that is the question, and that young man who talked for the chamber of commerce, I think, put his finger on this whole problem. Unless we are talking about giving each community the right to equality of television service, then I am afraid that we will have to go on and forget the whole business.

Mr. MERRYMAN. Senator, I think Mr. Adler's difficulty—by reducing their power, you mean reducing their service area?

Senator PASTORE. That is right. Qualify it by any name you want it, it is still a rose to me. I want to thank you gentlemen, because I think you have made a fine presentation here. I don't know as you have given us the solution to the problem, because I will admit it is a very, very complex problem. It is not easy.

I know the problems that confront the Commissioners. I think they are approaching them in the proper spirit. I think they would like to adjust this if they can. I think a lot of mistakes were made from the beginning. But I am hoping that somewhere along the line, someone is paying attention to this whole problem and will do something about it. But I still say it will require a lot of courage and a lot of boldness. It can't be all things to all people, and get away with a solution to this problem.

Mr. MERRYMAN. Senator, it isn't difficult to make a policy decision.

Senator PASTORE. All right, we do make a policy decision and then you run into a lot of technical obstacles.

Mr. MERRYMAN. That is what I tried to tell you.

Senator PASTORE. The policy decision you could make, you could state a cliché right here this afternoon. Give everybody everything they want, in the public interest, and then where are you? The big question is: How are you going to do this?

Mr. MERRYMAN. The mistake that has been made, Senator, has been that the policy decision has been thrown to the engineers. What I am suggesting is: Tell the engineers what it is you want, and they will design the system that will give you what you want.

Senator PASTORE. I am hoping you are right. We have a distinguished member of the Commission here, who is making notes. I am hopeful that he will take them back. I have a lot of confidence in you, Mr. Doerfer. You had better straighten that out.

Mr. Fine, how long are you going to be? I am willing to stay here until 5 o'clock.

Mr. FINE. Not more than 10 minutes. I won't read my entire statement. I appreciate the opportunity to present it, if it can be put in the record together with my comments.

Senator PASTORE. Let me say this to you, Mr. Fine. You have got, I hope, a very clear statement that you desire to present to this committee for the purposes of the record. Surely your statement will be in the record for the advantage of all those who would like to read it. But don't try to repeat things that have already been said. Summarize your statement so that you can make your presentation in 10 minutes.

If you think it is going to take more than 10 minutes, I don't want to shut you off, but my suggestion is that you come back tomorrow.

Mr. FINE. I think I can complete it in 10 minutes.

Senator PASTORE. The way this has turned out, I am here all by myself.

Mr. FINE. I appreciate that. I am sure my remarks would fall on sympathetic ears.

STATEMENT OF JESSE D. FINE, WFIE, EVANSVILLE, IND.

Senator PASTORE. Mr. Fine, you go right ahead and summarize your statement, and we will place your prepared copy in the record so that we will have your presentation in full.

Mr. FINE. Thank you, sir.

Mr. Chairman and members of the committee; I am president of Premier Television, Inc., owner and operator of television station WFIE operating on UHF channel 62 in Evansville, Ind. There is another UHF television station serving the Evansville area and market. That is station WEHT operating on channel 50 in Henderson, Ky., some 12 to 15 miles from Evansville, Ind. Both WFIE and WEHT are UHF stations and provide the only appreciable signal in the Evansville market. In addition, beyond our market area UHF station WSIL is operating in Harrisburg, Ill., some 55 miles from Evansville, Ind., and there is an application pending for a UHF station in Owensboro, Ky., some 30 miles from Evansville, Ind.

In bringing the first television service to Evansville in 1953, WFIE invested in excess of \$600,000 in facilities and equipment. From the time it went on the air in November 1953 until September 1, 1955, WFIE sustained operating losses approximating \$100,000. Since September 1, 1955, the station has been operating profitably and has recouped a small part of its losses.

There are well over 100,000 UHF receivers in the Evansville-Henderson area, and the immediate area surrounding Evansville which is known as the tristate area.

Evansville is recognized as one of the successful UHF markets in the country. UHF circulation is 100 percent in Evansville-Henderson. VHF penetration averages less than 1 percent of the audience.

The people in the tristate area have been enjoying television service from the 2 UHF stations at Evansville for more than 2½ years. WFIE has affiliation contracts with NBC and ABC and WEHT is affiliated with CBS. WFIE operates daily Monday through Friday, 7 a. m., to 12 midnight; Saturdays from 9 a. m. to 12 midnight; and Sundays from 12 noon to 12 midnight. Both stations carried a majority of NBC and CBS programs, together with local live programs as well as local remote shows. We have our own microwave unit. According to all surveys, the percentage of television homes tuning in on programming of the two UHF stations exceeds the national average and

this attests to the popularity of programing on our UHF stations as compared to VHF stations in other sections of the country. It also shows the ability of the public to receive a good signal from the UHF stations in our area.

This outstanding service, however, is threatened with destruction because of certain recent actions of the Federal Communications Commission which I desire to comment on today.

VHF channel 7 is allocated to Evansville, Ind., and VHF channel 9 is allocated to Hatfield, Ind., a village about 20 miles east of Evansville. Recently a final decision was issued granting channel 7 in Evansville to an organization known as Evansville Television, Inc. Two applications are pending for channel 9 in Hatfield.

When we began operating in Evansville 2½ years ago, we relied on the Commission's express finding in the Sixth Report and Order that UHF stations could exist in the same areas with VHF stations. As the entire industry and the Federal Communications Commission well know, that has proved to be completely fallacious.

When we realized in 1954 that our station could not exist if two VHF stations came into the market, we petitioned the Commission to delete the VHF allocations and make the area all UHF. We proposed that the Commission do away with 2 VHF allocations in the area in order to make the 6 or more UHF channels in the tristate region workable television assignments. The Commission denied our petition in December 1954, saying among other things that the applicants for channel 7 at Evansville had spent a great deal of money in the hearing. What the Commission did not say was that we had invested many times more money in providing actual television service to the people in an area which would not otherwise have had any kind of television service up to this time.

In January 1955, we again asked for deintermixture. After this committee, through its minority counsel, recommended that deintermixture be considered by the Commission, and after the Chairman of the Commission had made statements indicating that the merits of deintermixture should be explored, a rule-making proceeding was instituted in April 1955. We submitted hundreds of pages of evidence as to the desirability of deintermixture in our area, and we participated in the oral argument held by the Commission in this matter in June 1955. We showed conclusively by sworn statements and photographs that there were no white areas outside our perimeter that would be covered by a VHF station from Evansville and/or Hatfield that were not already covered by two or more TV services. Contrary to what Commissioner Doerfer testified to last week, this Evansville area is not a hilly portion of the country, but is generally flat and at worst is only gently rolling terrain. No problems arise in coverage because of shadows which exist in such rugged terrain as Portland, Oreg., West Virginia, Pittsburgh and the like.

We invite the committee, its staff members, and the Commission—if it wants to take the trouble—to visit our areas and to see that there are no "white areas" in our part of the country.

Despite our showings, no action was taken for several months. But in October 1955 we learned that the Commission intended to ignore our petitions and our extensive showings in the rulemaking proceedings, and to grant VHF stations in Evansville and Hatfield.

In October 1955 we filed petitions requesting stay of the proceedings in the VHF cases. We asked for leave to intervene and participate in such cases to show how the public would suffer if the two VHF stations destroyed UHF service in Evansville and surrounding areas, and we asked the Commission to consolidate the VHF hearings with our petitions for deintermixture.

On November 10, 1955, the majority of the Commission denied our petition for deintermixture without discussing any of the factual matters raised by us. The Commission ignored the informed opinion of many leaders of the industry that deintermixture was the desirable solution to the allocation problem in Evansville.

The next blow came on December 27, 1955, when the Commission granted channel 7 in Evansville and turned down our request for postponement of action on the channel 7 applications. The Commission majority turned us down flatly in our petitions to participate in the channel 7 matter, saying that we were too late.

The Commission said this despite the fact that the destructive effects of intermixture were not known at the time when, according to the Commission's rules, we could have intervened in the VHF proceedings.

The Commission said that the channel 7 grant was made because the rules then provided for channel 7 to be allocated to Evansville, but that in the future, if it was decided to delete channel 7 from Evansville in order to permit UHF to live, the channel 7 station could be required to operate on some other channel.

In other words, although the Commission had admitted that the allocation plan is wrong and should be changed, the majority of the Commission nevertheless sought to compound the errors in this allocation plan and to further complicate the situation by making grants based on a fallacious plan.

Such grants, we and many others contend, may kill UHF in areas such as Evansville before the Commission gets around to correcting the allocation plan, thereby rendering the whole question of UHF survival moot.

We have filed comments in the present nationwide rulemaking proceeding asking that Evansville and similar areas be maintained as exclusive UHF areas. We have proposed a more reasonable method of handling the channel 7 matter; namely, granting the winner of the channel 7 hearing the right to operate on a UHF channel until it is determined definitely whether or not Evansville will be deintermixed.

Gentlemen, we want to make it clear at this time that we have never attempted to stifle TV competition in the Evansville area—to the contrary, we welcome competition. In the future let our area have more service, but let that service and our competition be equal. Let us not create stations with special privileges which will stifle competition.

Based on our experience, the Commission will not now give us a prompt determination of our position. The Commission put us through one rulemaking proceeding in early 1955 and came out with a very brief order of denial of the relief we requested in that proceeding. Now a second proceeding is going on, but the Commission refuses to give us any relief pending the disposition of the second proceeding.

The Commission has had 2 years since the intermixture problem became generally known to take some action to help UHF stations.

But nothing has been done to remedy the intermixture situation. On the contrary, the Commission has taken a succession of actions which strengthen VHF television and, at the same time, weaken the structure of UHF. The hearings held last week by this committee prove my point. Some of the Commissioners are completely undecided, after all this time, about how to help UHF, but they are firmly convinced that there should be more and more VHF grants in UHF markets, and that there should be higher towers for VHF stations outside such markets.

It is utterly unreasonable to grant channel 7, or any other VHF channel, in a successful UHF market when it is known and admitted by the Commission that the UHF stations in such area will be destroyed by VHF. It is utterly unreasonable for the Commission to tell us that the VHF grant may soon be modified so as to provide for operation on another channel. We do not think the Commission would allow a broadcaster to invest tremendous sums in building a VHF station and then turn around and take it away from him.

We ask that this committee express to the Commission that it is desirable and essential to the fair and orderly disposition of the television allocation rulemaking proceeding to postpone the effectiveness of any VHF grant in an area which is presently a successful UHF market, and to postpone the effectiveness of such grants until the nationwide rulemaking proceeding has been definitely concluded and the future standards by which the industry will be governed have been finally adopted. This is the only reasonable thing to do.

It would also be reasonable for the Commission to permit interim operation of presently authorized VHF stations in areas like Evansville on UHF channels. The channels are available and the receivers are circulated in the area as a result of our pioneering, incidentally.

Let us not delude ourselves into thinking that UHF will survive if it is killed off in market after market. There is barely enough UHF television left now to justify the continued manufacture, development, and improvement of UHF transmitting and receiving equipment. If we diminish UHF service in this country instead of increasing it, the development and improvement of such equipment will cease and die.

Since the grant of VHF channel 7 is Evansville, a distributor of a well-known brand of TV sets in Evansville expressed his pleasure at such a grant. When asked the "why" of his position, he explained that this year only 2 of 21 models that his company is manufacturing are equipped with all-channel tuners—that the remaining 19 models would be capable of receiving only VHF signals. Previously his company had made all models available with all-channel tuners as had all other companies. What other TV set manufacturers plan to do we are not informed, but we think it is important that this committee be informed of these facts.

I might add that since the summer of 1953, no VHF-only sets have been shipped into or sold in the Evansville-Henderson area.

Gentlemen, what this committee and the Federal Communications Commission do today—not tomorrow or 6 months from now or 1 year from now—will determine the extent of the TV service the American people will have in the future. If we do not preserve the UHF portion of the spectrum for TV—and that is by far the largest portion

available—we are going to have a very limited service for the rest of TV history in this country. If UHF is not saved, we are going to have a mere handful of VHF stations to cover the country.

I was quite impressed the other day with Senator Magnuson's apparent grave concern with the fate of the local advertisers. Believe me, gentlemen, if we don't preserve UHF, you will never have facilities available to the local advertiser—with limited facilities afforded by VHF, the big national advertiser will take up all the TV time available, and the small local advertiser will be deprived of the use of this great medium.

Years ago no one in the radio industry envisioned the growth of that medium to the extent that we would have local radio stations in towns of 5,000 or less. What if we would have limited the AM radio band from 800 to 1,200 kilocycles—we would not have these radio stations in small towns. Let us not limit TV. Let us leave room for it to grow just like radio.

I hope we can keep UHF alive.

(Mr. Fine's oral statement begins at this point.)

I have a little different story to tell than has been told up to this time. I am the president of Premier Television operating WFIE in Evansville. We are operating a successful UHF station in Evansville, and there is another successful UHF station in the area.

The only thing we want to do: We are performing a great service in the area, and we want to keep UHF alive. We think that Evansville is one of the areas where the hope of UHF lies. If we keep it alive in this area, we have saved UHF for further development in the country.

Senator PASTORE. Have you any VHF competition?

Mr. FINE. VHF penetration in our area is less than 1 percent. We have 100-percent conversion to UHF in UHF receivers in our area.

Mr. Cox. But you have a V allocated?

Mr. FINE. A V is allocated and has been granted over our objection.

Senator PASTORE. Did you oppose the VHF?

Mr. FINE. We did oppose by various means. We now have pending in the court of appeals an appeal from the order of the Commission denying our petition for deintermixing, denying our petition to stay. We have even gone further than that. We asked the circuit court of appeals for a stay pending our appeal, which was denied by a different group of judges than prevailed in the Vail Mills case. By a 2 to 1 vote, our petition to stay pending the appeal was denied.

However, I want to point out that we are doing a good service in this area. We are providing everybody within our service area with good television, network and otherwise, including local live, local remotes, and so forth.

However, this outstanding service is threatened with destruction because of certain recent actions of the Federal Communications Commission which I have outlined to you. They have granted channel 7, which was assigned to Evansville. There is an application pending for channel 9 in Hatfield, Ind., a hamlet of some 400 people which is 20 miles from Evansville.

Senator PASTORE. Is that a V?

Mr. FINE. That is a V, too. It is a drop-in V. The reason we didn't oppose these channels sooner, or the granting of these channels, or the allocation of these channels sooner, was because we were led to believe by the sixth report and order that we could live side by

side with VHF competition. This has been proven false, as we all know here.

As soon as we realized, in 1954, that our station could not exist if two VHF stations came into the market, we petitioned the Commission to delete the VHF allocations and make the area all UHF, and then we took these subsequent actions about which I just told you.

Senator PASTORE. What is the extent of your area, Mr. Fine?

Mr. FINE. The trading area of Evansville is an approximate circle of 40 miles, I would say.

Senator PASTORE. Would you say it is a grade A or a grade B area?

Mr. FINE. That is the grade A and B.

Senator PASTORE. Let me ask you: If an application were made for a new UHF, would you oppose it?

Mr. FINE. Definitely not. We welcome UHF competition in the Evansville area.

Senator PASTORE. I mean, your position is that you do not oppose another channel coming in order to give people more service. Your opposition is due to the fact that it is a different type of a channel, and for that reason you may lose certain advantages that you have in your contracts with the networks?

Mr. FINE. With the networks and with the national advertisers. We think we have provided a good service. We have sworn documentation to the fact that there are no white areas beyond our perimeter. These areas beyond our perimeter have at least two television services.

Senator PASTORE. The reason I say that, Mr. Fine, is this: You started your remarks by saying your situation is different. After asking you a few questions, I think you state it about the same way as most of those who have come here to testify.

Mr. FINE. The reason I say it is different is that we are operating successfully now. We are performing a good service.

Senator PASTORE. Only because you don't have V competition.

Mr. FINE. Definitely.

Senator PASTORE. That is the point you make. I don't state that as a fact.

Mr. FINE. The next point that I want to make is that I think we are all agreed that we cannot have a nationwide, competitive, and diversified service unless we retain this great UHF spectrum in our field.

Let's keep it alive. We are going to need it. If you kill it now, as the recent Commission's actions are likely to do and as their expected future actions are likely to do, you are going to kill UHF and you will never have it.

Senator PASTORE. I make this statement: I can't for the life of me understand why in areas where they have U and only U, and everyone seems to be happy with it, why, if it is a question of giving more service to the people they don't bring in more U's, to which there seems to be no objection. Only because the argument is made here of the sixth order and report. If that is the fact, they ought to change the sixth order and report.

The fact of the matter is this, where you already have a U established and everybody seems to be happy with it, and it is easy enough to bring in more U's, why do they want to scramble this thing all up

and cause all this dissatisfaction and trouble when everyone seems to be happy with their U, provided they leave it U and give them all U's?

I can't for the life of me understand it. If it is the sixth order and report, then change it.

Mr. FINE. Senator, that has been our stand for the last 2 years. You leave me almost speechless when you take the words out of my mouth.

Senator PASTORE. Here is a further argument, then, Mr. Fine. Do you think that if a V was allowed in Evansville, the type of service that the people would get from that V would be better than the type of service that they are getting from you?

Mr. FINE. Definitely not. We are providing all service now.

Senator PASTORE. I mean the quality of the signal.

Mr. FINE. We have a beautiful picture. People who come in from other areas say, "This is a better signal than we are getting from VHF in Chicago," or Indianapolis, and so forth. We have just started operating in the black after 2 years in the red. Otherwise I would say, "Gentlemen, I will pay your expenses. Come out and see it." But I invite you to come out and see it anyway.

Senator PASTORE. Is that all you wanted to say, Mr. Fine?

Mr. FINE. I do want to quote from my statement here just a minute. I want to say that the Commission has had 2 years, since the intermixture problem has come up, to take some action to help UHF stations. But nothing has been done to remedy the intermixture situation. On the contrary, the Commission has taken a succession of actions which strengthen VHF television and at the same time weaken the structure of UHF.

Hearings held last week by this committee proved my point. Some of the Commissioners, you will remember, are completely undecided after all this time—it has been over 2 years—about how to help UHF. But they are firmly convinced that there should be more and more VHF grants in UHF markets, and that there should be high towers for VHF stations outside such markets to poach on the local market.

I want to point out this, that this thing has to be done quickly, if you are going to save UHF.

Senator PASTORE. You say that in your statement.

Mr. FINE. I say that in here. I say this, that let this VHF grant come on. In the interim they could operate on a UHF channel until this question is solved. It will not cost them any more.

I am sure they can go to GE or RCA—they have got plenty of old UHF transmitters on hand that they will gladly loan them, or they will gladly give them full credit on it if they ever change to VHF.

Let's not delude ourselves into thinking that UHF will survive if it is killed off in market after market. Here is one thing that is happening here. Since the grant of the VHF channel 7 in Evansville, a distributor of a well-known brand of TV sets in Evansville expressed his pleasure at such a grant. When asked the "why" of his position, he explained that this year only 2 of 21 models that his company is manufacturing are equipped with all-channel tuners; that the remaining 19 models would be capable of receiving only VHF channels.

Previously this company had made all models available with all-channel tuners, as had all other companies. In other words, what I am afraid of now, if a V is granted, is that the person who wants to buy

an all-channel set will have little selection of sets. He may not want the set that is made with an all-channel tuner, and he may be forced to buy a set that gets VHF only.

I just want to emphasize this, if I may read this conclusion. It is two paragraphs.

Senator PASTORE. But I can read that conclusion from your written statement.

Mr. FINE. All right, I want to emphasize this fact. What we will do today—not tomorrow or 6 months from now or a year from now—will determine the extent of the TV service the American people will have in the future. This is it. If we do not preserve the UHF portion of the spectrum for TV—and that is by far the largest portion available—we are going to have a very limited service for the rest of TV history in this country. If UHF is not saved, we are going to have a mere handful of VHF stations to cover the country.

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Mr. Cox. I have just one question, for Mr. Doerfer's benefit. Do I understand you to say that you had introduced sworn testimony, in certain of these proceedings you referred to, to the effect that in the areas around the perimeter of your UHF service area, viewers in those areas have a choice of at least two acceptable signals, and that there are no white areas?

Mr. FINE. We have documented proof in our comments in our proceedings before the Commission.

Mr. Cox. That is based on actual surveys conducted in those areas?

Mr. FINE. Actual surveys taken, with photographs of the signal as it comes over the air from two or more service areas.

Senator, I would like to have our comments in the proceedings before the Commission included in the record.

Senator PASTORE. We will not include it in the record. We will put it in the file and refer to it in the record as an exhibit.

Thank you, Mr. Fine.

(The document—Comments of Premier Television, Inc., and Ohio Valley Television Co., FCC Docket Nos. 11181 and 11532—has been retained in the committee's files.)

Senator PASTORE. At this point we will include in the record, without objection, the statement of Mr. Frank S. Ketcham, representing the Broadcasting and Film Commission of the National Council of the Churches of Christ in the United States of America; and the statement of Rev. Everett C. Parker, director of the office of communication of the Congregational Christian Churches.

**STATEMENT OF FRANK S. KETCHAM, THE BROADCASTING AND
FILM COMMISSION OF THE NATIONAL COUNCIL OF THE CHURCHES
OF CHRIST IN THE UNITED STATES OF AMERICA**

My name is Frank S. Ketcham. I am general counsel of the Broadcasting and Film Commission of the National Council of the Churches of Christ in the United States of America.

The Broadcasting and Film Commission was organized a few years ago upon the merger of the Protestant Radio Commission and the Protestant Film Commission into one department of the National Council which represents Protestant and Eastern Orthodox Communions having a total membership of almost 36 million individuals in the United States. The function of the Broadcasting and Film Commission is to encourage the utilization of the media of mass communication by their constituency, to win converts, and to create good will among people of different beliefs.

The development of education has always been of deep interest to Protestant churches. They have been the chief exponents of the free public school, tax-supported and open to all persons, regardless of creed. The first free public schools in this country were started by congregational groups in New England prior to 1700.

The use of audiovisual media in the field of education affords a new emancipation to millions of people around the world who have not had the opportunity of learning the printed word and in some instances are unable to learn the printed word. We subscribe to the fact that radio, television and films represent the newest revolution by mankind in the age-old fight against the tyranny of ignorance.

We, as a people, have always known that education is not confined to the field of curriculum. We are great ones for continuing to study long after we have left school and college. Adult education is important in almost every community in the United States. Now, through educational television, we have a new tool of major importance in furthering the adult education movement. Thousands of people who are eager for new knowledge but are unable to attend extension classes can now continue their education in their homes. The prospect is especially significant in view of the situation of our generation. Our formal education tends to make us specialists in very small areas, yet we are faced with the necessity of knowing more about more things than any other generation of mankind. Modern man needs some knowledge of such diversified things as nuclear physics, geopolitics, and the social and cultural practices of remote people.

The modern world is characterized by our ability to communicate with each other almost instantaneously through the mass media. In television where one can both see and hear, we have the most effective media ever perfected for meeting the problem of transmitting and interpreting information and ideas quickly and accurately. Upon our ability to use television successfully for this purpose may depend our survival as a democratic community. A people which can meet with adequacy the recurring crises of our century must be a people which has a mature understanding of its problems.

It is unthinkable that television should be used solely for commercial purposes or should be controlled entirely by persons who, of necessity, must operate a television station for profit. It has been our experience that commercial broadcasters will not—and possibly cannot—concern themselves with the special needs of the American people for education and information. The history of standard radio shows conclusively that education cannot compete with commercial enterprises. Provision must, therefore, be made for the special situation of education. This the Federal Communications Commission has done in its reservation of channels for educational purposes.

The granting of the reservation for educational purposes was opposed before its inception and is still opposed by many interests which are desirous of obtaining the reserved channels for commercial purposes. Television broadcasting in general apparently is encountering difficulties. It is not within our province to suggest remedies. It is within our responsibility, however, to urge that no remedy be adopted that will have a destructive effect upon the development of educational television by the elimination of the reservation of channels for this purpose.

From time to time the growth of educational television has been criticized as being too slow. Traditionally, institutions of education do not prepare themselves for emergencies in advance of their occurrence. As with buildings and facilities, so also with staff and faculties, the needs will be met, or steps will be taken to meet them, only after the needs and consequent demands make possible the necessary actions to solve the problems. Perhaps this must be so because of the order of events inherent in methods of administering and financing education in the United States. Unlike large industries or Federal Government operations, it is exceedingly difficult for educational institutions to justify to their constituencies the provision of buildings and facilities, or staffs and faculties, preparatory for use even in the near future.

With these thoughts in mind, imagine with what educators were confronted when, as if overnight, there emerged television, the greatest medium of mass communication man has ever known. Were educators slow in putting it to use?

In 1950 there was only one television station in the country owned and operated by an educational institution. Today there are 20 educational television stations, 18 of them operating on reserved channels. It is expected that at least 30 such stations will be in operation by the latter part of 1956 with 40 million people living within their coverage areas. Documentary evidence shows that more than \$50 million have been raised by public and private interests during the past three years to finance studies throughout the country and to build and operate those stations.

During the past 3 years, 23 State legislatures or governors have appointed committees or commissions to study educational television. These States are: Alabama, California, Connecticut, Florida, Louisiana, Maine, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont,

Washington, and Wisconsin; 18 of these States have spent close to \$4 million to finance studies and/or help defray construction and operating costs of educational stations.

Alabama has spent about \$1.5 million to put a State educational television network into operation. Another State network is under construction in Oklahoma, that State already having spent close to \$1 million on construction.

Four other States have enacted permissive legislation enabling educational institutions to provide educational television facilities, and nine other States have appropriated funds as follows for constructing or operating educational television stations or program production centers:

Florida-----	\$100,000	Rhode Island-----	\$150,000
Georgia-----	400,000	South Dakota-----	17,500
Louisiana-----	150,000	Tennessee-----	100,000
New Jersey-----	75,000	Wisconsin-----	75,000
North Carolina-----	215,200		

These are specific illustrations of increasing interest on the part of the general public in the use of the channels reserved for education. They are by no means inclusive of all that is being done in the field.

Educational television may have been slow in starting. It is well on its way today.

For these reasons we urge your committee, as elected Representatives of the people of our Nation, to use its good offices to see to it that the table of assignments, including the reservation of all television channels presently reserved for educational purposes, be maintained intact by the Federal Communications Commission.

We point out to your committee that two-thirds of the channels reserved for educational purposes are in the UHF band. The development of UHF is, thus, of particular concern to the educational stations. And we urge your committee to see to it that all steps necessary are taken to encourage its growth.

STATEMENT OF REV. EVERETT C. PARKER, DIRECTOR, OFFICE OF COMMUNICATION OF THE CONGREGATIONAL CHRISTIAN CHURCHES

My name is Everett C. Parker. I am director of the office of communication of the Congregational Christian Churches.

Congregational Christian Churches have a membership of 1,310,572 Protestants in 5,536 churches, with a ministry of 5,879 pastors. Church-school membership is composed of 743,532 individuals. Congregational Christian Churches have always been interested in education and active on its behalf. They are responsible for the development of the free public-school system in this country with the organization of the first public-supported free school at Dedham, Mass. The first college, Harvard College, organized in this country was created by Congregationalists. Congregationalists also organized Yale, Dartmouth, and numerous other major institutions of learning, and participated in founding Vassar and Wellesley Colleges. The colleges and universities listed below, though not now denominational in character, have been historically associated with Congregational Christian Churches. Those which have taken official action signify-

ing recognition as colleges or universities related to the Congregational Christian Churches are indicated with an asterisk (*).

*Amherst College.....	1821	Atlanta University.....	1865
*Beloit College.....	1865	Bowdoin College.....	1794
*Carleton College.....	1866	Colorado College.....	1874
Dartmouth College.....	1769	*Defiance College.....	1850
*Dillard University.....	1930	*Doane College.....	1872
*Drury College.....	1873	*Elon College.....	1889
*Fisk University.....	1866	*Grinnell College.....	1846
Harvard University.....	1636	Howard University.....	1867
Huston-Tillotson College.....	1952	*Illinois College.....	1829
*Knox College.....	1837	*LeMoyné College.....	1871
*Marietta College.....	1835	*Maunaloa Commercial College.....	1950
Middlebury College.....	1800	Mount Holyoke College.....	1837
Milwaukee-Downer College.....	1851	*Northland College.....	1892
Oberlin College.....	1833	*Olivet College.....	1844
*Pacific University.....	1849	*Piedmont College.....	1897
*Pomona College.....	1887	Ripon College.....	1851
*Rockford College.....	1847	*Rocky Mountain College.....	1883
Rollins College.....	1885	Scripps College.....	1926
Smith College.....	1871	*Southern Union College.....	1922
*Talladega College.....	1867	*Tougaloo College.....	1869
Washburn University.....	1865	Wellesley College.....	1870
Wheaton College.....	1860	Whitman College.....	1859
Williams College.....	1793	Yale University.....	1701
*Yankton College.....	1881		

The Congregational Christian Churches are members of the National Council of the Churches of Christ in the United States of America and support without reservation the testimony of Frank S. Ketcham, its general counsel, given today before this committee. It is solely because of the great historical background of the Congregational Christian Churches in the field of education in this country that they have felt impelled to express their individual views.

Among the functions of our office of communications is the responsibility for coordinating and administering the work of the Congregational Christian Churches in radio, television, and films. Consequently, we work closely with others interested in the media of mass communication.

Much of my own experience in these media has been in the field of programing. Prior to my present position as director of the office of communication I served during the years 1951 through 1954 as director of the communications research project, which was sponsored and largely supported by the National Council of the Churches of Christ in the U. S. A., under the supervision of the Yale University Divinity School. The primary purpose of this project was to attempt to understand the effects of religious programs broadcast over radio and television. As an incident to my work in this project, and in my present position, it has been necessary for me to be closely in touch with the activities of educational television stations and to view many of their programs. What I have seen has impressed me greatly. Additionally, I have discussed the programing of educational television stations with individuals living within their service areas and have had the opportunity of hearing their impressions first-hand. Educational television has become a reality for several million Americans living within range of the educational television stations. For them it has added another dimension to the educational and cul-

tural resources of their communities. Live broadcasts to the inhabitants of the areas served by the stations render to them easy access to the institutions of higher learning in their communities. Viewers of the educational television programs in the communities of Detroit, Pittsburgh, Boston, St. Louis, San Francisco, and other cities have become almost part-time students of the universities and colleges in those areas.

Films, too, have played a great part in the development of educational television. Grants totaling about \$10 million from the Fund for Adult Education to the Educational and Television Center have made it possible for the center to finance the production of educational programs on educational television stations and also to distribute them on films to all of the educational stations in the country. By this method, the best productions are made available to the greatest number of stations. My information is that the center distributes at the present time about 5 hours a week of program material to educational stations and that plans have been made to increase this service within the next 2 years to about 10 hours a week.

While the center has sought to provide programs of value to a relatively large number of persons, both at the adult and child level, the fundamental interest always has been in what happens to those who view the programs. Numbers of viewers are important in the pragmatic sense, but the success of educational television can never be measured in terms of nose counting. It can only be evaluated in terms of educational results, that is, the degree to which the viewer's information, skills, understandings, or behavior, for example, are changed as a result of the experience.

With these thoughts in mind, I shall comment on a few of the programs distributed by the center with which I have some familiarity.

MUSIC AS A LANGUAGE

Featuring Dr. Howard Hanson, director of the University of Rochester's Eastman School of Music and winner of the Pulitzer Prize for his Fourth Symphony, *Music as a Language* is a series of 13 half-hour programs designed to show how a composer communicates through his music to an audience. Dr. Hanson demonstrates a number of aspects of composition, orchestration, and instrumentation. In great detail he shows how he and other composers use consonant and dissonant rhythms and harmonies, and he gives a prescription for folk songs and seven differently "colored" white key scales. Most of the material used in the series is a result of nearly 30 years of research and performance in the field of music by one of America's outstanding composers.

LOYALTIES

Undoubtedly one of the most thought-provoking television programs of the current season, *Loyalties* attempts to answer the question: What motivates men to die for their religion, their country, their ideals? Dr. John W. Dodds, director of humanities, Stanford University, discusses with dignity and warmth the distinctly human character of loyalty; the element of choice in loyalty; and the dilemma of conflicting loyalties. He illustrates his points with objects of art—figures by Rodin, a painting by Breugel, and some early American

prints. Highlight of the program is Dr. Dodd's reading of excerpts from Steven Vincent Benet's poem, *Darkness at Noon*. He concludes that today we are fashioning a new loyalty—a worldwide loyalty to the humanity of man. He suggests that unless we do so, there will be nobody to be loyal to.

THE PAINTING

Educational television achieves another first in the series of seven programs entitled "The Painting," originated over KETC in St. Louis. It's the first time, said a St. Louis reviewer, that an artist has produced a painting before the glaring lights and grinding cameras of the television studio and before a multitude of viewers. Working a rigid, inflexible, split-second deadline, Siegfried Reinhardt turns out a painting entitled "The Man of Sorrows" in the seven half-hour programs, a religious work whose central figure is Christ. Reinhardt brings the painting from bare concept to completion without benefit of "gimmicks." The entire work was done before the cameras strictly on an "ad lib" basis. The series is intended to show, step by step, the way a good painting is produced. It is designed to bring viewers closer to all good paintings and artists by providing insight into the problems and hopes, the frustrations and rewards, which the painter must undergo. Reinhardt enjoys the reputation of being one of America's leading young artists. He teaches some classes at Washington University but spends most of his time creating. The Painting was produced by KETC Production Supervisor Vincent Park, assisted by J. Joseph Leonard.

THE ATOM

Featuring atomic physicist Dr. Edward Teller, *The Atom* seeks to explain clearly to nonscientists what is known about the nature and structure of the atom. Through charts and other devices Dr. Teller, who has been associated with such atomic developments as the Manhattan Project, demonstrates how and why physicists and chemists were forced to abandon their original simple picture of an atom as they discovered and tried to integrate more and more subtle and ambiguous facts. The series of three programs reveals not only how much, but also how little, science knows; the programs dramatically illustrate how many physical theories are reflected in everyday experience. The series was produced by educational television station KQED in San Francisco.

RELIGIONS OF MAN

The first college accredited course given on TV in St. Louis, this series features Dr. Huston Smith, associate professor of philosophy at Washington University. A survey of the great living religions of the world and how they influenced human history, the course covers Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity (Protestant and Catholic), and Islam. Lectures trace the start of these religions, their founders, and what each teaches as life's meaning and the way to its fulfillment. Born in China of missionary parents, Dr. Smith has had firsthand acquaintance with the religions of both East and West. He took his graduate study at the University of California and the University of Chicago, receiving a doctor of philosophy from the latter in 1945. Dr. Smith is the author of *The Purposes of Higher Education*, published in 1955 by Harper & Bros.

CHILDREN'S CORNER

The Children's Corner is a half-hour program directed specifically to an audience in the 2 to 12 age bracket, but is also amusing and intriguing to sophisticated adult audiences. Its hostess is a young girl in her twenties, vivacious Josie Carey, who invites viewers into a whimsical world of imaginary friends. These characters, with their appealing idiosyncrasies and original charm, range from the engaging Daniel S. Tiger, who lives in a clock, to Grandpere, who lives in the Eiffel Tower and speaks only French. Others of Josie's friends include: the dignified King Friday of Calendarland, who's in charge of all dates; Henrietta the cat, who is governess of 17 mice; and X Scape. Sometimes Josie takes her young audience to see how life goes on in Small World, where Gramophone, Rhoda, and Phil Dendren and others reveal their engaging and spritelike personalities. Special guests visit "The Corner" from time to time—Tony Greco, a versatile artist who draws stories; Pat Hamilton who can make flowers from paper towels; Stu Reynolds, a juggler; and Vivian Richman who sings folksongs.

The tone of the series, with songs, riddles, patter, and make-believe, is excellent fare for youngsters whose parents are opposed to currently available wild west programs, yet who want to encourage imagination and creative thinking.

PARENTS AND DR. SPOCK

Informality and spontaneity are the key words in describing this informative series which runs the gamut of problems which mother and father face as they rear their children. With Dr. Benjamin Spock, already a household name across the Nation as a result of his widely read book, *Baby and Child Care*, guiding the discussions, a group of parents talk about problems of a general nature in each program. Instead of bombarding the doctor with questions, the parents themselves discuss their problems and how they have settled them—with Dr. Spock adding helpful hints. Problems considered range from how much attention should be given children to how they should be disciplined and to those inevitable questions about how the facts of life should be answered. The show is produced by Mrs. John W. Ziegler and directed by Carl Freeborn.

* * * * *

The programs that I have discussed are only a sample of what goes on in educational television. Prior to its advent, it was inconceivable that programs of such content and value could be available as a portion of the general diet of television viewers. Certainly, they are beyond the scope of commercial broadcasters. Only the unfettered opportunity for those interested in the educational, cultural and social well-being of our people has made possible this great step forward in our efforts to develop as a mature nation.

The experiences of religious organizations in dealing with commercial interests for the broadcasting of religious programs cause me to view with envy the advantages of educators who have educational television broadcasting at their command—but it is appropriate that it be that way.

It is incomprehensible to us that there could be serious consideration given to suggestions that the precious channels reserved for education be turned over to the influence of Madison Avenue. We urge that it is in the public interest and convenience that the public be assured of the opportunity to view educational programs freed of commercial aspects. We are confident that your committee will agree that the reservation of channels for educational purposes must be maintained.

We reaffirm the views of the Broadcasting and Film Commission of the National Council of the Churches of Christ in the United States of America on this matter as presented to you by Mr. Ketcham.

Senator PASTORE. The committee will recess until 10 o'clock tomorrow morning.

(Thereupon, at 4:50 p. m., the committee recessed, to reconvene Wednesday morning, 10 a. m., February 29, 1956.)

TELEVISION INQUIRY (UHF-VHF Allocations Problem)

WEDNESDAY, FEBRUARY 29, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, in room G-16, United States Capitol, Senator Warren G. Magnuson (chairman) presiding.
Present: Senator Magnuson.

The CHAIRMAN. The committee will come to order.
Mr. Buchan, we will be glad to hear from you.

STATEMENT OF ALEXANDER BUCHAN, VICE PRESIDENT, MID-AMERICA BROADCASTING CORP., LOUISVILLE, KY.

Mr. BUCHAN. Mr. Chairman and members of the committee. My name is Alexander Buchan. I am vice president of Mid-America Broadcasting Corp., which owns radio station WKLO in Louisville, Ky., and which operated UHF station WKLO-TV on channel 21 during part of 1953 and 1954. During that time our company learned one lesson extremely thoroughly. It is impossible, under existing conditions, for a UHF to compete in a market—even a major market—which already contains two or more established VHF stations. We learned this lesson to the tune of half a million dollars, and we learned it the hard way—through the disinterest of national advertisers and networks to cooperate in any way with the much-needed third television outlet in the Nation's 27th market.

And, to be completely fair, I hold no malice against these advertisers and network officials, since their decisions were based on sound economics, and confirmed fully by recent and continuing curtailment of UHF operations in the mixed markets.

No officer in my company feels that there is any advantage to the public in having subsidies or artificial legislative aides offered to support UHF stations. We all feel, as I am sure you gentlemen do, that in the long run a business, whether it be broadcasting or banking, will only succeed when it can pay its own way and stand on its own feet competitively. For these reasons, I have been somewhat alarmed at complicated plans and schemes worked out to force UHF down the throats of people who neither need it nor want it—just as I have been alarmed at the apparent willingness of some members of the Federal Communications Commission to throw successful UHF stations to the wolves.

In other words, under certain conditions UHF cannot exist. But as was brought out by a witness yesterday afternoon, it can do an excellent job and even return an eventual profit where it does not have to compete with VHF. I refer to the testimony of Mr. Jesse Fine of Evansville, Ind., who indicated that acceptance of his UHF station is extremely good because both Evansville television services are now UHF.

My own current concern is with Louisville, Ky., where no amount of dedicated effort was able to make UHF successful and where no other applicant has been foolhardy enough to risk the gamble that we took, and lost.

The CHAIRMAN. Let me ask you this: Were you in there first, or were the VHF's in there first?

Mr. BUCHAN. The VHF's were in first, sir.

The CHAIRMAN. So when you established UHF in Louisville, you had knowledge that there were two VHF's there?

Mr. BUCHAN. That is quite right.

The CHAIRMAN. I suppose you explored the economic situation in relation to that?

Mr. BUCHAN. That is right. On the surface, it was a fair chance. All this means, very simply, that the present table of allocations has reached the limit of its usefulness, and that any further effort to force further compliance with its provisions will result in two things. First, a complete waste of assigned but unusable UHF channels—and I am speaking practically, now—and second, a withering of some successfully operating UHF stations through placing them in the position of having to compete with forthcoming VHF's in their markets.

As I said before, we do not believe in subsidies or special privileges, but neither do we believe in running counter to the dictates of good judgment and business experience.

There is, perhaps, a simple answer which has already been suggested to this committee. If all sets manufactured were all-channel receivers, then there would, for all practical purposes, be no difference between UHF and VHF—or at least no differences other than relatively minor ones of engineering.

The CHAIRMAN. Right there, how many UHF sets are there in your area, percentage-wise?

Mr. BUCHAN. At the time we ceased operations, the maximum estimate was 80,000. I rather think it was smaller than that.

The CHAIRMAN. As compared to what total?

Mr. BUCHAN. Set circulation in the Louisville area now, I believe, is around 400,000. That may not be a completely accurate figure.

The CHAIRMAN. We just want it generally.

Mr. BUCHAN. I would say it was about 20 percent.

Here again, if you have all-channel receivers, you have a situation where television is television. It isn't U or it isn't V. But in facing the economics of that matter, I don't believe set manufacturers will manufacture all-channel receivers if the handwriting on the wall indicates that this more expensive commodity is scarcely going to be necessary. And the present trend, if allowed to continue, tells the manufacturers just that. This point may be taken a step further, by adding the obvious corollary that even if all-channel sets are in general supply with-

in a few years, it will be too late, because by that time, there will be remarkably little use for an all-channel set. No more use than there is now for about \$4 million worth of converters and antennas in the Louisville area alone.

Which brings me to the printed comments which Mid-America has filed in connection with the present nationwide allocation hearing. These comments describe in detail our proposal for solving a serious lack of television service in Louisville in a manner which is consistent with overall nationwide allocation revision. I have attached a copy of these comments¹ to this statement for your reference, so I will not presume on your time to cover the material orally. These were distributed yesterday afternoon. Instead I will confine myself to a few salient points.

There is a shortage of television service in Louisville. Although it is the Nation's 27th market, and growing fast, there are only 2 VHF stations; many smaller cities have more. For this reason, there is scarcely any local programming in the better broadcast hours. One network, ABC, is represented by only 3 out of 21 available programs in the market, and local advertisers find they cannot use the present stations in any except time periods rejected by national advertisers.

The CHAIRMAN. There are only two VHF channels assigned to the Louisville area?

Mr. BUCHAN. That is correct; yes, sir.

The CHAIRMAN. Only the two?

Mr. BACHAN. Two VHF's. There are four UHF channels. We tried one; the other three have never been in operation.

The CHAIRMAN. There has not been assigned any third VHF channel to the area.

Mr. BACHAN. That is what we are asking at the present time.

The CHAIRMAN. In other words, what you are saying, in effect, is that you would switch over yourselves to VHF if you were now in operation—you would just switch over?

Mr. BACHAN. We have maintained our physical property—our land, tower, and equipment. We are ready to go at any time, except for the transmitter.

The CHAIRMAN. I understand you still run a radio station?

Mr. BUCHAN. That is correct. Incidentally, we are not asking only that one VHF be allocated, as I will point out later. We are asking that two additional channels—three, in all, in addition to the two presently operating ones, be assigned to Louisville.

The CHAIRMAN. How long has your request been on file with the Commission on that?

Mr. BUCHAN. Since July 1, 1954.

The CHAIRMAN. Was that prior to the time you went off the air with your U?

Mr. BUCHAN. It was about 2 months subsequent to our going off. You see, presently there are four unused UHF allocations in Louisville.

The CHAIRMAN. Understand, I am speaking only of the V.

Mr. BUCHAN. Yes. The reason that these U's are useless is that we lost \$300,000 capital investment, \$197,000 in operating expenses, and the public invested and lost about \$4 million in converters and UHF antennas.

¹ The comments referred to have been retained in the committee's files.

The CHAIRMAN. I think the testimony here has been pretty much the same, that the economic possibilities, with the present set situation and network situation, for any U to survive in a market in which there are two V's is somewhat difficult. I think everybody agrees to that.

Mr. BUCHAN. I won't belabor that point any further.

The CHAIRMAN. But they get to a difference of opinion as to whether they can do it with one V. But once you get two V's, the experience has been that the U either had a most difficult time to make it or that it must have a network, as in Mr. Storer's Miami and Portland situation, or else it absolutely goes under.

Mr. BUCHAN. That is correct. This isn't only the city of Louisville that has a shortage of television. It is the entire State of Kentucky. I compared it with neighboring States.

The CHAIRMAN. You probably agree with the premise of Mr. Merryman, then, yesterday, that he thought that the goal of the FCC should be, first, to put at least one television station in every community in the United States—that is the second priority, the first one being service for everyone.

Mr. BUCHAN. I agree with Mr. Merryman to a point. As a basis of comparison, very quickly, Illinois has 18 television stations on the air now. There are 12 in Indiana. There are 20 in Ohio.

In the entire State of Kentucky there are only four—four television services operating. One of those is located at Henderson, and it is living with a pistol at its head, because if the grant that is presently proposed for channel 7 in Evansville goes in, Henderson, which is a U, will probably go under.

The CHAIRMAN. Let us get this. You had had some experience. Let us get this straight here. When you applied for a UHF, I don't think any of the UHF operators will deny the fact that they knew they were taking a calculated economic risk.

Mr. BUCHAN. At the beginning, sir, I don't believe that was the case.

The CHAIRMAN. I was going to come to that. But you knew that there would be a possibility of this happening. But since you started, these other things have happened to change the circumstances, which has made the economic situation more deplorable; is that correct?

Mr. BUCHAN. That is true. In fact, there are just literally—

The CHAIRMAN. In other words, if you went in now and applied for a UHF, no one could weep any particular crocodile tears over what might happen, could they?

Mr. BUCHAN. I believe that is the fact.

The CHAIRMAN. Because you have taken cognizance of the situation.

Mr. BUCHAN. The only place in which I would even consider—

The CHAIRMAN. It is a set of circumstances that have developed, as I understand from the testimony here, subsequent to the application for many of these UHF stations.

Mr. BUCHAN. That is true, Senator. The only place I would consider applying for a UHF now would be a place in which there is no VHF allocation whatsoever, and a complete lack of service. The terrible thing about this is we predicate a system of television for the entire country on the basis of VHF and UHF channels, and now there are literally dozens of UHF frequencies or facilities that will never be applied for.

I can think of one in Connecticut—more than one in Connecticut. There is one at Meriden, Conn., for example, halfway between New Haven and Hartford. There is a transmitter site, a tower, and a building sitting on top of a mountain there. Nobody is ever going to apply for it, because they can't make a go of it. It could cover Hartford and New Haven perfectly well.

So your point is exactly right, that no one would weep tears for the man who tried it now.

The CHAIRMAN. I don't mean literally crocodile tears. I mean economic tears. [Laughter.]

Mr. BUCHAN. To move on to what we consider a solution for this shortage of service, we ask that more VHF channels be allocated to Louisville. By that I mean current VHF between 2 and 13, rather than the so-called military VHF.

The CHAIRMAN. Has the Commission ever indicated to you why they have not done this, or why they haven't acted upon this? What is your understanding as to why they haven't made a decision—let's put it that way—on the question of another V for Louisville?

Mr. BUCHAN. Mainly and very simply—

The CHAIRMAN. I don't suppose you would know, actually, but what is the general reason?

Mr. BUCHAN. The general reason is that the Commission apparently is still going down the line with the present table of allocations. I am informed by Mr. Bader (the witness' counsel) that probably the best answer is that we were denied, on November 10 of last year, with a simple statement that consideration of this would be postponed until there was overall rulemaking.

The CHAIRMAN. In other words, would you say it is the general understanding in the industry that the reason that no decisions have been made in some of these cases—or a denial has been made—is that they are waiting for some rulemaking on the whole matter?

Mr. BUCHAN. Yes, sir. I will point out later that this idea which has generally been called deintermixture was accepted some time ago, but it has gone by the boards now.

Let us see how this works out in practice. We are asking, for example, that channels 7, 9, and 13 be assigned to Louisville to replace the current assignment, not being used, of UHF channels 15, 21, 41, and 51. Of these, only channel 21 was ever constructed and put in operation. To effect this change, channel 13, which we would like to see end up in Louisville, would be moved from Bowling Green, Ky. It hasn't even been applied for there, so that doesn't seem like a bad change. We would replace it with two UHF channels that would be available—17 and 54.

We ask that channel 7 be replaced by channel 39 in Evansville. Thereby we would maintain the integrity of the currently successful UHF operation in Evansville. And we would move channel 9 from Hatfield, Ind.—that has a population of 400 people—and we would replace it there with channel 78. So we would then have all these V's in addition to the two current ones in Louisville, and in the other areas we would have U's where they would be useful.

The CHAIRMAN. In other words, switch them around a little.

Mr. BUCHAN. That is right. Obviously, with two U's operating currently in Evansville, the addition of a third U up there in Evans-

ville is only going to make everybody compete on the same level, whereas the V's are going to kill the U's.

First of all, this would provide much-needed service for Louisville. Secondly, it would maintain and preserve the current service at Evansville and still let it expand as their economy grew.

The CHAIRMAN. How far away is Evansville from you?

Mr. BUCHAN. It is about 100 miles. We feel that this proposal would also make much more efficient use of channels 7 and 9 than now is proposed. For example, it is hard to see how channel 9, which is a very desirable channel, would be efficiently used in a town of 400 people—not realistically. And channel 7 certainly would be used better in Louisville, where we are prepared to go on immediately, than it would in Evansville where there would be a V and U conflict.

We can do this without destroying any existing stations. Yet, if the channels were allowed to remain where they are now, in Evansville and Hatfield, they might easily destroy 1 or possibly 2 of the existing U's up there in Evansville.

We also feel that this would mean that Louisville could have a workable and usable educational channel, because we are proposing that channel 9 be reserved for educational use. Then educational organizations would really have a valuable channel that people could get on their sets and could see, if they had good programs.

There are some cochannel stations involved, and there would be a very slight amount of interference with the grade B coverage of one other station, if we move channel 7 down to Louisville. But that interference lies right in the city of Cincinnati, and there are plenty of other local services available in that area. In other words, we would have a little interference on channel 7 from a Dayton station, but it wouldn't be within their market area.

Then you might say up to this point it has been sort of a special pleading for one city, or even for one interested licensee. But we believe sincerely that it is on the basis of realistic plans like this that some relief from the growing allocation problems may be found most quickly.

The CHAIRMAN. I would suggest that a similar situation must exist in other places throughout the United States.

Mr. BUCHAN. Proposals of this type have been sought by leaders in the field. For example, the Chairman of the Federal Communications Commission, on last May 24, told the broadcasting industry right here in Washington that one of the most difficult problems is to devise ways and means of enabling UHF stations to operate on a comparable basis with VHF stations, and that rulemaking proposals had been put out looking to the possibility of deintermixture in certain cities.

Up to this time, no one of these proposals has been carried through. Yet this was thought most urgent about a year ago, for the Nation as a whole. You can consider how urgent it is for us broadcasters, because we have studios, we have towers, we have property waiting to be used. And the people in Louisville are very honestly begging for more service. Yet the Commission has granted channel 7 for operation in Evansville, where two existing stations may be put off the air as a result, and no relief has been granted to Louisville.

The CHAIRMAN. Has anyone applied for channel 7 in Evansville.

Mr. BUCHAN. Oh, yes.

The CHAIRMAN. Was it granted?

Mr. BUCHAN. That has been applied for and has been granted.

The CHAIRMAN. They have made a grant?

Mr. BUCHAN. And that is the face of at least a proposal to delay any grant there—delay any construction—until these changes in rule-making could be considered.

We suggest in the interest of providing service, rather than shackling service, that the Federal Communications Commission allow us to operate WKLO-TV on a temporary basis in Louisville on channel 7. We would willingly do this during the interim period in which these changes in allocation are brought about. Or, if that is too simple, then we could say at least that no further final action be taken—

The CHAIRMAN. You do not want to make anything simple. [Laughter.]

Mr. BUCHAN. If we can't do that, then we suggest that no final action be taken which would prevent our proposal from receiving serious consideration. Even this wouldn't have to prevent the present channel 7 grantee in Evansville from going on the air, because he could go on with a UHF, which would put him right in fair competition with the current stations there, and there would be no problem.

I would like very much to express my appreciation for the chance to address your committee, but I also would like to say that I realize it is a lot easier to elaborate on one or two phases of a problem than it is to weigh all the merits of all the arguments and come up with a final answer. But as a working broadcaster, I am hopeful that this committee will call to the attention of the Commission the tragic results that are flowing from the Commission's present allocation policies. I also hope that the committee will see fit to point out the tremendous need for prompt action in this connection.

Otherwise, major markets like Louisville, and hundreds of lesser markets throughout the country which have inadequate television service now, will be faced with continuing and probably increasing scarcity of viewing.

If there has been any good derived from the present allocations policy—and I believe there has, in the sense that some service has been brought to most of the people of the country—then we must not be hypnotized by this partial achievement of the goals. We must, all of us, be watchful for new ways to increase and improve television service, and I submit that our proposal is the only one which realistically attacks the present problem in Louisville.

Thank you.

The CHAIRMAN. I appreciate your statement. The chairman wants to say again, on all of these matters, what I said at the outset last year at the National Association of Radio and Television Broadcasters convention—that it has been hoped that the fact that this committee has had this inquiry going on for some time—long before I was chairman—that that should not be used as a reason by the Commission not going ahead and doing, as I put it, business as usual.

I think the Commission understands that, too, very clearly.

So with reference to matters such as you suggest, if they have some merit and can be worked out, it is hoped that the Commission will act on some of these things, despite the fact that we still may not have come to all our policy conclusions up here.

I always want to get that straight, so that there will be no suggestion that the fact that we are going into this and many other matters—not only allocation matters—could be any reason for delay if the Commission sees fit to act.

Mr. BUCHAN. I realize that.

The CHAIRMAN. Thank you. Counsel has some questions.

Mr. Cox. Mr. Buchan, as I understand it, under the present situation, under the sixth report, for Louisville there are two V channels allocated and four U's. Is that what you said?

Mr. BUCHAN. That is correct.

Mr. Cox. Then in the light of your experience, and of the experience of UHF operators throughout the country, showing that this is an impossible competitive situation, despite the fact that there are 6 channels allocated, for all practical purposes an artificial ceiling has been placed on television service in Louisville at 2 channels only.

Mr. BUCHAN. That is exactly the condition as it stands today.

Mr. Cox. And your view is that the only way in which this can be dealt with is to add channels that will be fully competitive with those that are already on the air, by reallocating additional V channels in Louisville?

Mr. BUCHAN. That is true. There was a reference made by the Chair to Mr. Merryman's testimony yesterday, in which he was talking about reduced cost installations in small towns. There comes a time when you can reduce the cost down to the point where it isn't practical to put any station on—and particularly in a major market such as Louisville. If you are going to be competitive, you have to be willing to invest, and you have to be willing to invest operating capital to make it competitive with the other two stations.

Mr. Cox. I think Mr. Merryman was speaking about a little different situation where that would perhaps be the only local service in the area and would be competing on a different basis.

How about this as a hypothetical matter: What is your own opinion as to the chances of one or more UHF stations competing in a sizable market if there is only one V on the air?

Mr. BUCHAN. The immediate situation is this: If there is one V on the air, it can be taken for granted that that will be affiliated with either NBC or CBS. That is automatic. The chances are that that V will also get the cream of ABC programs.

So if there is only one V on the air, and more than one U, the most favorably situated U will probably have the other major network, and in that case may be able to compete. But even above the network affiliation standpoint, there is a tremendous block in trying to sell time, especially to national advertisers, when you mention U's. Mention channel 22 and they will clam up, but if you mention channel 2, they smile.

Mr. Cox. Would it have helped you in your particular situation, or would it help in this hypothetical situation of just one V in a market, if the stations in a particular area were limited to a single primary network affiliation?

Mr. BUCHAN. I think I partially answered that in the sense that if there are only two stations in an area, one V and one U, the U will have a network affiliation. It will manage to get one. But it will have more difficulty in getting national spot business, which is a major factor in television.

Mr. Cox. In your situation, as I understand it, where there are two V's on the air, they divided the network affiliations and you had none; is that correct?

Mr. BUCHAN. We not only had no network affiliation—except that we have a radio affiliation with ABC and we hope to have ABC television—we weren't even allowed to carry the programs with no charge.

Mr. Cox. They preferred to put it on the V?

Mr. BUCHAN. They preferred to put it on the V.

Mr. Cox. Even if they could get only one-seventh of their programs on the air?

Mr. BUCHAN. They sometimes preferred not to have the program on the air, because they were hopeful of getting it on the V eventually.

Mr. Cox. I take it, then, that this petition that you filed for the allocation of additional V channels in Louisville shortly after you went off the air was the product, and based upon, your experience in an effort to compete in that kind of a situation?

Mr. BUCHAN. That is correct.

Mr. Cox. As I understand it, the V's that you are talking about—that you are suggesting be allocated to Louisville—are not presently on the air anywhere?

Mr. BUCHAN. That is correct, yes.

Mr. Cox. So there would be no deprivation of an existing V service to anyone in other markets?

Mr. BUCHAN. I checked late last night. There has been no attempt to start construction of channel 7 in Evansville. The V in Bowling Green has not been applied for, nor is there any construction on the V in Hatfield.

Mr. Cox. Would you be in favor of some action such as was recommended by witnesses, I think on Monday, suggesting that this committee, or the Congress, adopt a resolution directing the Commission to reach an appropriate decision on reallocation matters upon certain suggested bases.

Mr. BUCHAN. If I understand that correctly; yes. I believe that promptness is one of the most important factors in this whole situation.

We were listening yesterday to testimony given, outlining the 2 major goals or 2 major directives to the Commission. We have achieved one of those, which is some service to almost everybody in the country.

Now we are at the point where that is going to crystallize and harden in that situation, without spreading out and giving multiple services. So if promptness is not instituted now, the set manufacturers, of their own accord, are not going to manufacture an all-channel set that costs them several more dollars per set to build. There has to be a reason for it.

If we freeze now, with the U's gradually dwindling, there is less and less reason for the set manufacturers to make all-channel sets, and they are going to make what they can sell.

The CHAIRMAN. Do you think it will ever be possible to make an all-channel set just as cheaply as a V, so it will make no difference?

Mr. BUCHAN. I am not an engineer.

The CHAIRMAN. They are down to only \$10 or \$12 now.

Mr. BUCHAN. I am not an engineer, Senator, but I will say this, that if we had been able—and this is wishful thinking—if we had

been able to start television as television, and not as UHF and VHF (in other words, the same as a radio dial), we wouldn't be having any of this problem, because there is not, basically, enough difference, from the viewer's standpoint, between UHF and VHF. The viewer just wants to see a picture.

The CHAIRMAN. With color, he can get it even better.

Mr. BUCHAN. Even better.

The CHAIRMAN. Of course, that is what I said right at the beginning of this thing. I said that the real problem is the set, and the first thing we did was to call in all the set manufacturers and the makers of tuners, hoping we could do something about it, or help do something about it.

Mr. BUCHAN. But I believe Mr. Merryman indicated—or Mr. Fine indicated—there was going to be less production of all-channel sets in the major lines in this coming year than there has been in the past. Two lines out of 21 models are going to be all-channel.

The CHAIRMAN. What would you think of an amendment to the Communications Act giving the Commission authority to deal with receivers as well as transmitters?

Mr. BUCHAN. If that were done, and it were simply stated that all-channel sets must be manufactured—

The CHAIRMAN. It would give them authority to act in the field, and then if they did, they could make a regulation to that effect.

Mr. BUCHAN. If that action were prompt, it would be very useful.

The CHAIRMAN. I don't know whether they would or not, but they claim now that they do not have the authority to enforce such a regulation, if it were made.

Mr. BUCHAN. It might, on the surface, be difficult to enforce it, but on the other hand, most receivers are made by a few leading manufacturers. It is not a business that has a lot of small manufacturers in it, and in a concentrated group like that, it should not be too hard to enforce that.

The CHAIRMAN. It seems to be something that could be solved. For instance, I do not know what color sets will be costing—maybe \$300 or \$400 now, the cheapest ones. And here we are with this problem, and we are dealing—the manufacturers say—with a difference of between \$8 and \$12 per set on the production level. It may be cheaper now. That was last summer.

Mr. BUCHAN. There was one topic yesterday, that of possibly limiting color broadcasting to UHF. I would like to say that that seems a very artificial way of attacking the problem. If you have good stations operating now, and you have plenty of them, for goodness sake let's not artificially go to them and say, "You can't do this."

People want color. Let them see color however they can get it. But let us make it possible for them to get more and more of all broadcasting.

The CHAIRMAN. That is leaving the cause down here with the set, and trying to do it in reverse up above, which is probably not the practical way.

Mr. BUCHAN. I agree with you.

The CHAIRMAN. Thank you.

Mr. BUCHAN. Thank you, sir.

The CHAIRMAN. Mr. Tarzian. You are a manufacturer and owner of WTTV, Bloomington. What Bloomington is that?

Mr. TARZIAN. Indiana.

The CHAIRMAN. There are two Bloomingtons, one in Illinois and one in Indiana.

Mr. TARZIAN. Bloomington, Ind., is a better town. [Laughter.]

**STATEMENT OF SARKES TARZIAN, STATION WTTV,
BLOOMINGTON, IND.**

Mr. TARZIAN. My name is Sarkes Tarzian. I am president of Sarkes Tarzian, Inc., Bloomington, Ind., a corporation engaged in the following:

- (1) One of the largest manufacturers of TV tuners;
- (2) Operator of TV station WTTV, a pioneer in its field;
- (3) Manufacture of low-cost TV station equipment.

All of these three activities have a direct bearing on the subject of this committee's investigation. We are probably unique in covering the various facets of the TV field.

From our TV tuner manufacturing experience—which extends over 10 years—we know that the lowest price full-range UHF tuner that can be mass produced, and meet fringe area and FCC requirements, costs the TV set manufacturer about \$7.50. This price is higher now than over a year ago because of increased material and labor costs as well as more stringent radiation limits set by the FCC to prevent interference between UHF sets, as well as interference to other services. A good VHF tuner in combination with a full-range UHF tuner will cost a TV set manufacturer about \$17. The lowest price VHF-only tuner that a TV set manufacturer can buy is \$7.60.

From this it is evident that a full-range VHF-UHF set carries a maximum additional cost of \$9.40. With transportation charges, et cetera, we can say that this added cost of UHF, when compared with the lowest price VHF receiver, is approximately \$10.

In 1954 the percentage of UHF tuners sold by us to manufacturers was 31 percent. In 1955, this percentage dropped to 26 percent. I estimate that, due to popularity of low-priced portable TV receivers, this percentage will drop again in 1956.

I also feel that the price differential in cost of \$10, between straight VHF and full-range VHF-UHF sets, will not be materially reduced in the next 3 to 5 years.

I have samples here of a low-price VHF tuner—\$7.60—and a combination VHF-UHF tuner, price \$17.10.

The CHAIRMAN. What is the difference? Which one do you put on the VHF set to make it an all-channel set?

Mr. TARZIAN. This is a straight VHF tuner, the simplest low-priced VHF tuner. It will go in a straight VHF set, 12 channels only.

This one that we have here is a combination VHF-UHF, in which this is the VHF part [demonstrating], and later on you can put the U on if you wish, or you can ship it out, the two together. But this package, as I have said, costs \$17.10.

The CHAIRMAN. If I had a V set—take the other one off—if I had a V set, I would have this, wouldn't I [indicating]?

Mr. TARZIAN. Yes, that costs \$9.60.

The CHAIRMAN. How much does this cost [indicating the other portion]?

Mr. TARZIAN. This one, then, will cost about \$7.50.

The CHAIRMAN. So I can convert my set for \$7?

Mr. TARZIAN. Provided you had a V tuner that could accept the U, you see. You have to pay—now this tuner [pointing to the low-price VHF tuner] costs \$7.60, but it can't accept UHF at all in the future, except through a converter.

Here is a VHF tuner that can accept UHF, but it sells for \$9.60. So there is \$2 that goes into making this tuner so that later on it can accept UHF.

The CHAIRMAN. It can't accept U, the \$7.60 one?

Mr. TARZIAN. That is right. That is the problem. You just cannot take a U tuner and stick it alongside a V tuner and have the U tuner cost \$7.50 and do the job.

When you go to converters, and use the regular V tuner that is in the set, then of course it costs a lot more—maybe \$20 or \$25 to buy a converter and put it on your regular set so you can get UHF. So this is really the most economical way, and the best way performance-wise, to do it.

We all realize that for a TV station to be successful, it must give a service that people want, regardless of whether the type of transmission is VHF or UHF. I believe we have ample proof of this in the successful UHF operations in Fort Wayne, Ind., for example, where this is the only service available.

We also know that in order to have a free and adequate TV service we need a relatively large number of channels available. VHF channels—of which there are only 12—are not sufficient to give satisfactory, competitive TV service. After much investigation and advice from the industry, the FCC adopted the 82-channel system, in order to give a fully nationwide, free and competitive TV service which would last for a long time.

Unfortunately, due to misinformation, or disregard of the advice given to the FCC, the following factors have hindered the rapid growth of UHF broadcasting:

- (1) Inadequate power of earlier UHF broadcasting stations.
- (2) An eagerness and anticipation on the part of new broadcasters that profits would be available at once. They overlooked the experience of early VHF broadcasters, who lost money for at least 2 to 3 years.
- (3) The inadequate performance and higher price—\$30 to \$50 more to the people—of earlier VHF-UHF receivers.
- (4) Inadequate amount and quality of programing material at reasonable cost to meet the needs of a large number of TV stations.
- (5) No large number of sets available for reception of UHF broadcasts.

What is the situation today?

(1) We now have higher power UHF transmitters and amplifiers available—although the cost is still high.

(2) Those who now go into UHF broadcasting know more of the facts of life and therefore have a better chance of survival.

(3) We now have UHF tuners and receivers that give as good fringe-area performance as the average VHF set. About 2 years ago their performance was one-third that of VHF sets. The price differential of manufacturers has been lowered.

(4) We now have more programing material available, and TV film producers are learning how to produce and distribute film programs at much lower prices. Also the stock of older films of the major movie producers is being made available for TV use.

(5) We still do not have a large number of sets in use that can receive UHF broadcasts. Of the almost 8 million sets produced annually, only a small percentage can receive UHF signals satisfactorily. This still remains our unsolved problem.

How can we, practically, solve the UHF receiver circulation problem so that more sets will be built with full-range tuners? That is the real crux of our dilemma.

Unfortunately there is no fast solution to this problem. It is going to take at least 4 or 5 years to put into circulation about 30 million sets that can receive UHF signals as well as the present sets now can receive VHF broadcasts. To accomplish this it is going to take action by Congress to equalize the cost to the consumer of a full-range TV set compared to a VHF-only receiver. This can be done, as recommended about 2 years ago, by lowering the excise tax on full-range TV receivers.

If Congress had done this then, there would now be in use over 15 million full-range receivers, and our problem would have been half solved by now. Since no action of a practical and fundamental nature was taken then, we still continue to haggle and hold hearings.

There is no easy and fast solution to UHF, except a long-range one of governmental help through tax assistance. We have spent tens of billions of dollars abroad to buy friends—why don't we spend a few millions at home to assure a free, competitive TV system? This Government subsidy to assure a free, competitive TV system will not benefit any one group at the expense of the United States Treasury. This subsidy will mean more jobs, more TV stations, and more taxable income so that the Government, over a period of years, will collect more than it loses in tax revenue.

I thank you for the opportunity of appearing before your committee.

The CHAIRMAN. We thank you for your testimony.

The last suggestion was one that was made by the manufacturers when they were here, I think, 8 months ago. Of course, we needn't spend any money for this. It just means that the Treasury would get less.

Mr. TARZIAN. That is right.

The CHAIRMAN. But I am inclined to agree with you that the broadening of our free, competitive TV system through other methods of taxation than now exist would result in the creation of more jobs and more business activity within the system and might adequately make up—or more than make up—to the Treasury for the loss of revenue from this excise tax.

Mr. TARZIAN. That is right.

The CHAIRMAN. Counsel has some questions.

Mr. Cox. Mr. Tarzian, will this all-channel tuner that you demonstrated here receive all 82 channels?

Mr. TARZIAN. Yes.

Mr. Cox. It is a full-channel receiver?

Mr. TARZIAN. That is right—full range.

Mr. Cox. How many manufacturers are using your all-channel tuner, in general terms?

Mr. TARZIAN. I would say that outside of those manufacturers who build their own tuners we supply most of the others—practically all of the others.

Mr. Cox. Are all major manufacturers of television sets manufacturing at least a limited line of all-channel receivers?

Mr. TARZIAN. Absolutely. They all have it in their line. I do not know of any manufacturer who doesn't produce a line of receivers with full-range tuners in them.

Mr. Cox. Is there much use today of strip converters, or is the practice now, if a man lives in an area with U service, to buy an all-channel set?

Mr. TARZIAN. That strip conversion has been a sham and a delusion. It led, I am sure, a lot of the UHF broadcasters who went into broadcasting to believe that as soon as they got on the air it would be very easy to convert these sets by putting strips in them and they would have a viewing audience.

But, unfortunately, to do that, you see, you have to get a serviceman. It would cost, with the serviceman and the cost for 1 or 2 strips—the charge would probably come to between \$20 and \$25.

If people were already getting adequate VHF service, if they were getting the programs that they wanted, and the UHF station coming on the air didn't have anything particularly new to offer that they would be interested in spending \$25 for, they just didn't convert.

I know the figures for last year. One major manufacturer who uses turret tuners where the strips can be changed—their experience was that only 1 percent of their sets in the field are converted over to accept UHF. So it is a very, very small percentage.

Where you have new UHF service, you need good performance, just like we have on VHF. The only way you can get it is, not through strips but through a full-range tuner of the type we make or other people make.

Mr. Cox. Does this full-range tuner—as I understand your testimony—give as good service in the UHF frequencies as it does in the VHF?

Mr. TARZIAN. That is right. This tuner that we have, which we have had now for over a year and a half, gives on the average as good service as the average VHF set. So now a UHF broadcaster is not at a disadvantage from the standpoint of performance of UHF receivers. Before, he was.

Two years ago, the performance of these UHF receivers, full range or otherwise, with or without converters or strips, was only one-third to one-fifth as good. So as a result, coupled with low power of the UHF stations themselves, they just had no service area. That was another major problem.

Mr. Cox. Do you sell many of the more expensive type of VHF-only tuners that you demonstrated there without the front section?

Mr. TARZIAN. Without the U. We don't sell, relatively, large numbers of the V tuner itself that are later on adaptable to UHF. I would say that our business is probably 10 or 15 percent on that type alone.

Mr. Cox. That is, the decision is usually made initially either to make it only V or to make it all channel?

Mr. TARZIAN. That is right. I think that is the general tendency now. I feel that this year, 1956, we are going to sell less of those V tuners that can later on accept UHF; relatively, percentage-wise we are going to sell less of those than we did in 1955, because the thing is now settling down, so that a manufacturer will either make straight VHF sets or he is going to make combination sets, because they realize now that in areas where they need UHF, they have got to have performance.

In those areas where they have VHF service, the way UHF has been going, they don't see any need for putting in something which later on can accept UHF.

Mr. Cox. As far as your own operations are concerned, what percentage of the tuners you sell are now the all-channel type?

Mr. TARZIAN. I just gave you that.

Mr. Cox. Twenty-six percent in 1955—was that your figure?

Mr. TARZIAN. That is right. In 1954 it was 31 percent. I estimate in 1956 it will be nearer 20 percent.

Mr. Cox. Does the construction of a color set present any tuning problems, or does this tuner, or its equivalent, work equally well in a color receiver?

Mr. TARZIAN. We still have some engineering problems to work on to adapt UHF to color, but they are not insurmountable. I feel we have the answer.

So there won't be any problems from an engineering standpoint that would hinder color on UHF. But as things get more competitive, as color sets get more competitive, as more manufacturers make color sets and they lower their prices, I think you are going to find that they are going to make straight VHF color sets. In fact, we have a lot of requests now for samples of straight VHF color tuners. So I think you folks should not labor under the delusion that all color sets are going to be full-range sets.

Mr. Cox. That is, the desirable situation in that respect, you think, will change under competitive influence?

Mr. TARZIAN. That is right, just as it has had to change with black and white sets, because of competitive conditions.

Some people labor under the delusion that manufacturers are in collusion not to make full-range sets. That is the most ridiculous thing that anyone can suppose. The reason for it is this: A manufacturer is in business to sell what the public wants. He has to compete with the other manufacturers. If the public wants to pay \$20 to \$25 more and get a full-range set, the manufacturers are very happy to do it—to build them. But if the public isn't interested in paying for it, how can a manufacturer, with the competition that he has, go out on the market and penalize himself. For every set he sells, his set is going to be \$25 higher, when markets like New York, Chicago, and the like don't need this UHF full-range.

So there is no collusion or anything of that kind amongst the manufacturers. The same accusation was made of the manufacturers when we had FM. They thought that the manufacturers were trying to hinder FM, and that if they would just build FM sets, FM would go like a house on fire. Well, the economics were against FM. The manufacturers are in business to build what the public wants. We would be very happy to build all full-range tuners, but the manufac-

turers don't want full-range tuners. They don't want to pay the \$10 more that it costs. So as a result we build 26 percent full-range.

They likewise are in the same situation as we are. The public doesn't want it. They don't want to pay the \$20 to \$25 more that a full-range set would cost by the time they went to the dealer's store to buy it.

Mr. Cox. That additional cost, over the \$10 figure you quote, is because of normal wholesale-retail markups?

Mr. TARZIAN. Markups. But the way I feel about it is this: If Congress would make it possible to lift the excise tax from the lower price UHF sets—let's set a limit of about \$15 excise tax credit on a full-range set—then I am sure that the manufacturers will go along and absorb this additional \$10, and the dealers will go along and absorb it, so that you will be able to have out on the market full-range sets that will be the same price as VHF sets, which of course then would carry the standard excise tax.

Then in that way you will increase your circulation. The answer to this whole problem is a matter of circulation of UHF. Technically, and from every other standpoint, UHF is a satisfactory service, if we only had the sets out in the field.

We can look at it in this way: Suppose in the early days of television, instead of having VHF, we only had 12 channels of UHF, and all the sets that were out on the market were just UHF. Later on the Commission opened up VHF channels, 70 of them. Those VHF channels would have the same problem that the UHF's are having now. It isn't something that is inherent in VHF or UHF, as such. It is just a matter of working out a means whereby we can get these sets into circulation, so that when a broadcaster goes on the air with his U station, the receivers are there. He knows he has the audience, if he has the programs. Then the advertiser or the network knows that that station can do just as good a job as anyone else, because the circulation is there.

I know the suggestion has come up that in areas where there are already two U's in operation, that is a bad thing for a V to come on the air, that it is going to hurt the U's. But it my feeling is this, that if those two U's have been progressive and aggressive at the same time, and the people have good UHF service which they have had now for 2 or 3 years, that the V is going to have a tough time getting people to watch it, just like in those areas where you have 2 V's, the U has a tough time getting the U station to be watched by the V listeners.

From a technical standpoint, the services are comparable. And if the circulation is there—and it is already there where you have had two U's there in operation over a period of years—then that V is going to have hot competition.

The CHAIRMAN. Of course, in that case where you have, say, 2 or 3 V's or U's, I think the economic experience has been that if a U has a network, it gets along all right.

Mr. TARZIAN. If it has the programing, whether it is network or its own independent—whatever it has in the way of programing, the people want to watch, and it has been there on the air for a number of years—

The CHAIRMAN. You have got to have the type of program that will make the people want to go out and spend that extra money to convert or buy an all-channel set.

Mr. TARZIAN. They have already spent it in the U area. I am talking about where you have two U's on the air. I know the Commission has been criticized for putting another V in an area where there are already two U's. But what I am saying is this, since those U's have been on the air for a number of years now, and all the sets in that area can get now—they have the circulation, they have the full range receivers—a V going in there is going to have a tough time. It isn't going to put the U's out of business.

Mr. COX. It doesn't have the set-conversion problem because, of course, the all-channel set can receive the signal.

Mr. TARZIAN. That is right.

Mr. COX. Hasn't there been some evidence, in some of these areas where there are one or more U's on the air and a V is allocated and on the verge of coming in, that the U operators are given advance notice that their network affiliations will or may be terminated?

Mr. TARZIAN. Here is what I would say: If those U's have high towers and have full power, they can do just as good a job as that V is going to do. I think you will find that in those cases that you are talking about where they have got notice of termination, the U has not had a good facility.

Mr. COX. How many U stations, if you know, are operating at full power in the country?

Mr. TARZIAN. I don't know exactly how many there are, but there are quite a number of them. But there are a lot more who are not operating at the maximum. You will find that most of the V's have gone to the full power and full tower height that is allowed by the FCC rules and regulations.

Mr. COX. Transmitters for full power V operation were available much earlier, and at much lower cost, than for a U; isn't that right?

Mr. TARZIAN. I think that is true, but the U costs will come down. For instance, a 100-kilowatt UHF transmitter sold by RCA was priced, 3 or 4 years ago, for about \$85,000. You can buy that same transmitter now, a new one, for \$25,000.

Mr. COX. What is the price for a 1,000-kilowatt UHF transmitter, which is full power?

Mr. TARZIAN. Since it is new, it is going to be high. But in time it will come down, too.

Mr. COX. Will it come down fast enough for this fellow to be able to go to full power, to compete with the V that comes into the market, before he loses his shirt?

Mr. TARZIAN. It all depends on how many of them want to go into it, and do it, you see. If you only build one, the price is very high. If you can build 25 or 30 of them, the price will go down.

Mr. COX. The maximum market would be about 99; wouldn't it, because that is the total number of U stations on the air?

Mr. TARZIAN. That is a big market for that type of a product, and prices will drop. The other thing is this: These UHF broadcasters would do this—they'd take heart and do it—if they knew that in some way or other, either through this tax proposal or some other proposal, there would be the set circulation for them.

Mr. COX. Why is it that in a place like Pittsburgh, Pa., with one V and one U on the air, the V has all of the networks and the U is having a terrific time making a go of it?

Mr. TARZIAN. Does the U station in Pittsburgh, Pa., have a high tower and full power so that it does as good a job as the V? It could do that if it wants to do it. When it does that, and when it has the circulation, it can compete on an equal footing.

Mr. Cox. Doesn't it have terrain difficulties in Pittsburgh which perhaps it cannot overcome?

Mr. TARZIAN. I don't agree with you on that. With a high tower and full power, you can overcome all those terrain difficulties.

Mr. Cox. Mr. Storer seemed to think they would still have trouble in Portland, even with a 1,000-kilowatt transmitter and the highest tower in the area. He still got serious shadow in the hilly terrain there.

Mr. TARZIAN. We have, of course, for instance, around Evansville, Ind.—it isn't the flattest country in the world—but I have gone down there and looked over that terrain, and they get satisfactory reception in that area without too much trouble.

The answer to all this is, I think, you can go to 2,000 feet on UHF and you can go to a million watts. Any station that does that will have just as good service as any of the V's that we are talking about, competitively.

Mr. Cox. If the U can give as good service, including the area of coverage, as the V that is coming into the market, is there any affirmative reason for putting the V in there? Why not just put another U in and use the service that is there now?

Mr. TARZIAN. I am not arguing, you see, that they should do this thing. All I am saying is that from a technical standpoint, if you have the circulation, the U's are not at a disadvantage if they have been aggressive and they have been on their toes, and haven't just sat back and waited.

For instance, we are a VHF operator. We started out with a 200-foot tower and a 1-kilowatt transmitter, because we just couldn't buy a bigger transmitter when we went on the air in 1947—when we first started. Our next step was to go to a 600-foot tower and a 5-kilowatt transmitter when we could buy it. Later on we went to a 1,000-foot tower and effective radiated power of 100 kilowatts.

All that costs money. But if you want to stay in business and be competitive, you have to do it. The same thing is true of the U's. If they want to stay in business and compete, they have to do these things.

Mr. Cox. There seems to be some sentiment on the Commission that they have to put a V in these places because it will give greater service than even a full power U.

Mr. TARZIAN. I don't think they are correct on that premise. If that is their reason for doing it, they are not correct in their premise, because I think a 1,000- or a 1,500- or a 2,000-foot facility in Evansville, Ind., with a million watts will do as good a job as any V that they can put down.

Mr. Cox. Isn't it true as long as the impression prevails, particularly among advertisers, that the V gives greater coverage, that if it appears in the market, it is going to have an advantage over its competitors in selling national advertising?

Mr. TARZIAN. All right, but impressions can be changed. I think a lot of these impressions are created by the UHF people themselves.

They say they have got terrible service. If you were buying advertising, and you heard their stories, what would you say?

Mr. Cox. My understanding is they say they have got a good service, but that they don't think it goes as far out, perhaps, as you seem to think it does.

Mr. TARZIAN. It does if they spend the money and put up the facilities. It will do that. And it is the object of the Commission, in their engineering standards, to set it up that way.

For instance, you take the low channels on VHF—channels 2 to 6. They have set that up as a maximum of 100,000 watts effective radiated power. Then you go to channels 7 to 13, they have set it up as 316,000 watts to equalize it. On UHF they have set it up at 2,000 feet and somebody was telling me about 2 million watts effective radiated power.

They have done that, from an engineering standpoint, to equalize those services. So you can do it. It is feasible from a technical angle to do it, and if you want to stay in the UHF business, you have to do it.

Mr. Cox. You didn't mention any figure—you said it would be high because there were so few of them. Do you have any idea what the cost of a 1,000-kilowatt transmitter for UHF is?

Mr. TARZIAN. I don't, no. I haven't checked up on it, because I personally haven't been interested, at the moment, in going into high-power UHF broadcasting, even though we are interested and have applied for a UHF station at Roanoke, Ind. We believe in UHF. UHF has a future. It is maybe not as good as people thought, in the early days, it would be, nor is it as bad as people now make it out to be. It is a good service, if it is properly handled, and you have the circulation. That is the problem, to get that circulation.

The CHAIRMAN. Thank you, Mr. Tarzian. I appreciate your coming.

We will take a 5-minute recess.

(A short recess was taken.)

The CHAIRMAN. The committee will come to order.

Mr. Steetle, we will be glad to hear from you.

STATEMENT OF RALPH STEETLE, EXECUTIVE DIRECTOR, JOINT COUNCIL ON EDUCATIONAL TELEVISION

Mr. STEETLE. Thank you, sir.

My name is Ralph Steetle, and I am the executive director of the Joint Council on Educational Television. The joint council is a representative body, the 11 constituent organizations of which represent every important segment of American education, at all levels, public and private. The headquarters of the joint council is here in Washington. The predecessor of the joint council is the Joint Committee on Educational Television; the change in name to the Joint Council on Educational Television occurred in December 1955.

I am grateful for this opportunity to report to your committee concerning the development of educational television stations throughout the United States, with particular reference to the manner in which these developments relate to the functions of this committee.

The joint council originally consisted of 7 organizations, all of which had participated in the hearings before the FCC in 1949 and

1950 on which the sixth report and order were based. During 1955 3 additional organizations joined the joint council and this month the 11th organization became a member so that at the present time there are 11 members, as follows:

American Association of School Administrators (joined March, 1955).

American Council on Education.

Association for Education by Radio-Television.

Association of Land-Grant Colleges and State Universities.

Educational Television and Radio Center (joined December 1955).

National Association of Educational Broadcasters.

National Association of State Universities.

National Citizens Committee for Educational Television (joined February 1956).

National Congress of Parents and Teachers (joined July 1955).

National Council of Chief State School Officers.

National Education Association of the United States.

During the hearings on which the sixth report and order were based, the joint council, representing education's interest in television, requested the reservation of channels, both VHF and UHF, for noncommercial educational use. The FCC found that such reservations would be in the public interest, and they were accomplished by earmarking for educational stations 80 VHF and 162 UHF channels—subsequently increased to 86 VHF and 172 UHF channels—located in the principal metropolitan areas and educational centers of the continental United States and its Territorial possessions.

For this reason, educational television has a vitally important stake in both VHF and UHF service. Because VHF television was already a going concern at the time of the sixth report in April 1952, the VHF educational reservations were more immediately valuable than those in the UHF band. The VHF reservations included such major cities as Chicago, St. Louis, Boston, San Francisco, Pittsburgh, Milwaukee, Houston, New Orleans, Minneapolis, and Seattle—and I could name more except I would sound like a train announcer—to mention only those among the first 20 markets in the country. Noncommercial educational stations are now broadcasting on the reserved channels in all of those cities except Milwaukee, New Orleans, and Minneapolis.

In Milwaukee, on February 9, 1956, one of the two applicants for reserved VHF channel 10 has withdrawn its application and it appears that the FCC will shortly grant a construction permit to the remaining applicant, the Board of Vocational and Adult Education. At New Orleans, on February 17, 1956, the Commission granted a construction permit to the Greater New Orleans Educational Television Foundation for an educational station on reserved VHF channel 8. And in Minneapolis-St. Paul, the Twin City Area Educational Television Corp. filed its application for reserved VHF channel 2 on February 9, 1956. Funds are on hand for these three stations and, accordingly, it may be expected that by the end of this year educational stations will be on the air in all of the cities in the first 20 markets in the country where VHF channels have been reserved for educational purposes.

It is the stations on these VHF channels in the largest cities, with their financial resources, that have enabled us to turn educational television from dream to reality, and to begin acquiring the practical **experience which is the basis of any highly developed art.** In the

major metropolitan areas below the first 20, the local situations vary, but good progress toward full use of the reserved channels is being made. In summary, the VHF educational reservations have been, and continue to be, of major significance in the development of educational television in its early stages.

In view of the fact that precisely two-thirds of the educational reservations are in the UHF band, the development of UHF television is of vital importance to the long-range development of educational television.

The CHAIRMAN. By that, you mean you have about absorbed, as I understand it now, the available VHF channels?

Mr. STEETLE. This is where the quick operations have taken place.

The CHAIRMAN. And if we are to look toward the expansion of educational television into communities other than these large centers you mentioned, we will probably have to look toward the UHF band?

Mr. STEETLE. That is true, or else find VHF's for those educational areas, sir.

The CHAIRMAN. That poses a very difficult problem, I think. In other words, if we could work out the availability of educational programming and educational channels in the UHF band, we would have an easier long pull on this thing; wouldn't we?

Mr. STEETLE. And yet this is alined, also, to the successful commercial use of UHF, because we need assistance in encouraging the purchase of sets. In many of the larger cities, especially in the east, all available VHF channels were already occupied by commercial stations before the "freeze" of 1948, and the hearings which led to the sixth report. In these metropolitan areas, no new VHF channels were available for educational use, and, accordingly, the Commission reserved a newly assigned UHF channel.

In 7 of the first 10, and 10 of the first 20 metropolitan areas—including New York City, Philadelphia, Los Angeles, Detroit, Baltimore, Cleveland, and Washington—the present prospects of full-scale educational television are dependent upon the future of UHF service, because it is a UHF channel that is reserved for educational use.

A good example of this, Mr. Chairman: There has been a half a million dollars set aside in Cleveland for the development of an educational television station. Yet the educators there are not proceeding to build this station until they find out whether or not someone else in Cleveland will come along and utilize UHF, so there can be a widespread service to the total population.

The CHAIRMAN. In other words, sound economical UHF stations in these areas would be a great help to a UHF educational station?

Mr. STEETLE. That is true, sir. If UHF languishes and eventually dies, there will be either no educational television service in these cities—which is unthinkable—or VHF facilities will have to be made available for exclusive educational use. It is, therefore, clear that educational television has a vital stake in both VHF and UHF, and with no reason to favor one at the expense of the other, because both are essential.

I should like to emphasize that, although one of the joint council's main tasks has been to request and support educational reservations, education's stake in the television system as a whole extends far beyond the reserved channels. The reservations must be an integral part of a sound television structure, or their worth, as we have already

discussed, will be seriously diminished. Educators have never taken the view that the noncommercial stations can or should be the sole medium of education in television. If you can provide educational values by television, it is just as important to provide them through networks or commercial stations as it is through the noncommercial station.

On the contrary, the education and cultural implications and potentialities of the commercial television service are enormous. A multiple, varied television service on a nationwide basis is as important to educators as to any other part of the citizenry. Local television outlets for community use and as a medium of local self-expression are likewise vital to education, and this is especially true in smaller communities that are unable to support more than one television station. Without a healthy UHF service, it is difficult to see how these basic national necessities in the field of telecommunications can possibly be achieved.

The extent to which educators have already made use of the reserved channels is commonly and grossly understated, whether by accident or design. There is attached hereto as exhibit A a list of the 20 educational television stations now on the air.

(The list referred to is as follows:)

EXHIBIT A. EDUCATIONAL TELEVISION ON THE AIR, FEBRUARY 29, 1956

Twenty communities now have noncommercial educational television stations. All 20 stations listed below operate on reserve channels except WKAR-TV at East Lansing, Mich., and KUON-TV at Lincoln, Nebr., which operate on a noncommercial educational basis on channels which are not reserved. These stations and the institutions operating them are:

Date programming commenced	Location	Call letters	Operating institution	Channel No.
Apr. 28, 1955	Birmingham, Ala.	WBIQ	Alabama Educational TV Commission.	VHF 10.1
May 2, 1955	Boston, Mass.	WGBH-TV	WGBH-TV Educational Foundation.	VHF 2.1
Aug. 1, 1955	Champaign-Urbana, Ill.	WILL-TV	University of Illinois	VHF 12.1
Jan. 8, 1955	Chapel Hill, N. C.	WUNC-TV	Consolidated University of North Carolina.	VHF 4.1
Sept. 19, 1955	Chicago, Ill.	WTTW	Chicago Educational TV Association.	VHF 11.1
July 26, 1954	Cincinnati, Ohio	WCET	Greater Cincinnati TV Educational Foundation.	UHF 48.1
Sept. 19, 1955 ²	Columbus, Ohio	WOSU-TV	Ohio State University	UHF 34.1
Jan. 30, 1956	Denver, Colo	KRMA-TV	Denver Public Schools	VHF 6.1
Oct. 3, 1955	Detroit, Mich	WTVS	Detroit Educational TV Foundation.	UHF 56.1
Jan. 5, 1954	East Lansing, Mich	WKAR-TV	Michigan State University	UHF 60.
May 25, 1953	Houston, Tex.	KUHT	University of Houston and Houston Independent School District.	VHF 8.1
Nov. 1, 1954	Lincoln, Nebr.	KUON-TV	University of Nebraska	VHF 12.
May 3, 1954	Madison, Wis	WHA-TV	Wisconsin State Radio Council	UHF 21
Aug. 12, 1955	Miami, Fla.	WTHS-TV	Lindsey-Hopkins Vocational School of the Dade County Board of Public Instruction.	VHF 2.1
Jan. 7, 1955	Munford, Ala.	WTIQ	Alabama Educational TV Commission.	VHF 7.1
Feb. 13, 1956 ²	Oklahoma City, Okla.	KETA	Oklahoma Educational TV Authority.	VHF 13.1
Apr. 1, 1955	Pittsburgh, Pa.	WQED	Metropolitan Pittsburgh Educational TV Station.	Do.1
Sept. 20, 1954	St. Louis, Mo.	KETC	St. Louis Educational TV Commission.	VHF 9.1
June 10, 1954	San Francisco, Calif.	KQED	Bay Area Educational TV Association.	Do.1
May 1, 1955	Seattle, Wash.	KCTS-TV	University of Washington	Do.1

¹ Reserved channels.

² Testing.

The nature of the allocation plan and the diverse characteristics of the reserved channels lend themselves to misinterpretation of statistics and percentages. The result has been a prevalent misconception that educators have been slow if not backward in exploiting the opportunity given them by the FCC reservation of numerous channels. It is, indeed, the fact that they are so numerous that gives rise to the misconception.

Within the entire allocation plan there are now 258 reserved channels. Since only 18 educational stations are actually in operation on the reserved channels, and 2 more are operating on nonreserved channels, it is easy for critics of educational television to resort to percentages and exploit the mathematical fact that less than 10 percent of all reserved channels have been taken up in the period of more than 3 years since the reservations were made.

But the answer is, of course, that the reserved channels are not all alike. To begin with, 172 of them are in the UHF band, and educational use of these has encountered obstacles similar to the commercial UHF stations. It is no accident that, in the largest 20 markets, 7 of the 10 VHF reservations are already in use and the other 3 soon will be, while of the 172 UHF reservations, only 4—Cincinnati, Columbus, Madison, and Detroit—are presently in use. True, noncommercial UHF stations, unlike the commercial stations, do not suffer from lack of advertising income which they do not and cannot receive or depend upon. But the educational UHF stations do suffer, just as do the commercial stations, from lack of receivers and audience; for this discourages both the educational broadcaster and his potential subsidizers.

Despite all this, determined and courageous efforts are being made to use several of the UHF reserved channels even under present adverse circumstances, and it is safe to assume that if the Commission now takes action to preserve and stimulate UHF service, the reserved UHF channels will come into rapidly increasing use. In any event, so far as the immediate crisis in television is concerned, it is apparent that the reserved UHF channels are victims rather than cause; and no one has suggested that these reserved UHF channels could be used more advantageously for commercial purposes.

The Commission, in its sixth report and order of 1952, reserved television channels for educational purposes because it was convinced, on the basis of the record made in the hearings, that there was a need for noncommercial educational television stations based upon the important contributions which such stations could make in educating the people both in school—at all levels—and also the adult public. The need for such stations was justified upon the high-quality type of programing which would be available over such stations—programing of an entirely different character from that available on most commercial stations.

It is my opinion, from having personally visited most of the educational stations and having viewed a number of their representative programs, that the programing service now being offered by the educational television stations in operation justifies the conclusions reached by the Commission in 1952 in reserving channels for educational stations. Educational television programing is, in my opinion, already distinctive, generally competent, and sometimes distinguished. The educational resources of the various areas throughout the country

are being mobilized through the live programming offerings of the various educational television stations.

Furthermore, through the facilities of the Educational Television and Radio Center at Ann Arbor, Mich., the best programs developed by any of the educational television stations are being made available to all stations. There appears at pages 26 through 68 of exhibit B² attached hereto a series of sketches of the principal programming undertakings of each of the educational stations on the air in November 1955. Insofar as written words alone can convey an impression of what is designed for the eye as well as the ear, we think these schedules show that a new and significant and useful dimension has been added to television.

A word about educational television's network. The educational Television and Radio Center was established in December of 1952, and received a grant of \$3 million at that time from the fund for adult education to begin its operations. The center not only made available for national distribution the better local programs developed over the educational television stations, but also encouraged and brought to fruition program ideas of educational merit from all available sources. The center began furnishing program service to the Nation's educational stations on an informal basis on January 1, 1954, and inaugurated a formal program service of 5 hours a week in May of 1954. On December 19, 1955, the Ford Foundation announced another grant in the amount of \$6,265,000 to the Educational Television and Radio Center for the further development of its programming service to non-commercial educational television stations. At the present time the center is making available to educational television stations 5 hours of programming each week in the fields of history, public affairs, literature, music, the arts, science, and children's programs. The center expects shortly to increase its distribution of programs to approximately 10 hours per week. For example, Mr. Teller, of hydrogen energy fame, describes atomic energy. Howard Hanson, of the Eastman School of Music, discusses music appreciation. Robert Penn Warren discusses literature. They are of this nature. I have seen a number of these programs, and it is my opinion that they are not only well done and interesting, but also educationally significant.

The purpose of the FCC in reserving channels for educational stations was to take these channels from the commercial market place and make possible the development of a truly educational television service. The reservation plan has actually resulted in a real start in the development of such a service, which now consists of 20 educational television stations. Abolition of the VHF reservations would destroy educational television's immediate prospects for growth which lie chiefly—because of the problems that we have been discussing here in the UHF—in the VHF band. Abandonment or deterioration of UHF would destroy educational television's long-range prospects of full development which, like those of the television industry as a whole, must depend upon vigorous exploitation of the UHF frequencies. Once UHF development is assured the UHF reservations, which comprise two-thirds of all of the reservations, will again be of practical importance.

² A copy of exhibit B, Comments of Joint Committee on Educational Television in FCC Docket No. 11532, dated December 13, 1955, has been retained in the committee's files.

The CHAIRMAN. Thank you, Mr. Steetle. Do you have some questions?

Mr. COX. Yes. Mr. Steetle, just for the record, could you give us a brief explanation for the delays that have taken place in exercising the rights to reserved channels because of some of the special problems of educators in getting underway on a project that involves an expenditure of money?

Mr. STEETLE. Unlike the commercial entrepreneur who can step around to the bank and establish credit and immediately proceed to establish a station, educational policy develops somewhat more slowly. You have to inform the entire community. You have to gain support for the use of this medium. You have to experiment to see whether or not this is important to education. So you have an awful lot of work to do before you decide this is something that you really want to do.

Then, having made that decision, you have to explore the sources of financing it: How much will come from public gifts, what foundations can you tap, how much will come from the university, what will the school systems chip in, what is the role of the library and the museum? To me, it is somewhat astounding that this process has taken place in so many communities in this short a time.

Mr. COX. Wasn't it actually the purpose of this system of reservations to allow time for that process to work itself out?

Mr. STEETLE. That is precisely the basis upon which the reservations were made, recognizing that educational—

The CHAIRMAN. The Commission, I think, had quite an understanding of the problems of financing educational TV in allowing longer construction time after they had given a permit; did they not?

Mr. STEETLE. I think the Commission has been most sympathetic, Mr. Chairman.

The CHAIRMAN. In many cases, take where a State university is involved, a land-grant school, sometimes the legislature don't meet except every 2 years. You might get the grant and have to wait possibly 2 years before the legislature would make an appropriation, or would work out some problem for the State university to enable it to have educational TV.

Mr. STEETLE. Yet in the long run this is going to have real meaning to the legislatures. The manager of your Seattle station was in a meeting with me in Iowa yesterday, and we got to discussing before this group of educators, talking about educational television, what meaning it had to the University of Washington, for example.

They have a problem there that many major universities have with the need for science training and youngsters coming out of high school without the basic algebra and the mathematical requirements. You either take your entire mathematics department and break them up into sections, all of these incoming students—so-called bonehead math—and then how do you teach your higher levels of mathematics.

The educational station in Seattle is putting the bonehead mathematics on television and, in cooperation with the correspondence division of the University, they are upgrading these incoming youngsters so that they are able to take scientific training, which is one of our major needs.

The CHAIRMAN. And they are creating an interest among younger people to go into this field.

Mr. STEETLE. That is indeed right.

The CHAIRMAN. That is the most important thing they are doing, creating an interest. I think more of these stations, if you can be helpful, ought to do that—put more emphasis on that—because if there is a crying need in this country, it is for people to go into that field.

Mr. STEETLE. Not only that, but I think, Mr. Chairman, if we are going to remain a strong and free country, it is important that all of us have an education—adults as well as the youngsters.

In Pittsburgh, for example, I think they found that the average attainment educationally was about the eighth grade among the adult population. How does an adult who wants a high-school diploma go about doing it? There are night schools, but there is baby-sitting, there is parking. So they put a high-school course specifically for adults on the educational television station, and they are finding that this is so important that the men in industry who are on swing shifts and can't take these, are demanding that they be placed again at another hour.

This always interest me, that in addition to the adults that were free, some of those in the penitentiary also tuned in on these high-school diploma courses; and amazingly enough—or maybe it isn't amazing, because of their greater powers and freedom for concentration—a higher percentage of the convicts finished their courses.

The CHAIRMAN. They had more time. [Laughter.]

Mr. STEETLE. They had more time, I think, and less distraction.

Mr. COX. What has been the general public response, in and out of penitentiaries, to your educational programing? Have you had evidence of a considerable public interest all across the country where these stations are on the air?

Mr. STEETLE. I think we do indeed. At St. Louis, Prof. Houston Smith of Washington University gave his regular course in the comparative religions of mankind, but dressed up attractively for television. He had a classroom of 100,000 people in St. Louis who were quite excited about this. Professor Smith says, "I walk down the street, and as I pass the haberdashery the man comes out and says 'Your tie looked a little rough on that television program. Come in and get a new one.'" He said "My secretary went down to reserve a normal academic upper berth for me on a trip, and the girl at the railroad station said 'I can tell on television his legs are too long for that. Get him a roomette.'"

In San Francisco, where they made an audience survey, about 50 percent of the people interviewed were able to identify specific programs on the educational station there. This I think, for a station that has not been on the air for a long time, this is very encouraging, very stimulating.

One more thing here. They did a teen-age program called The Finder on the St. Louis station. An attractive young man in a sports car takes the children, by television, to see how aviation works, to see what the various things of importance are around the St. Louis area. They got to wondering: Do the teen-agers for which this is intended really look at this program? So the next week's program was to be a visit, by television, to a cave about 70 miles outside of St. Louis. So they casually said at the end of the program "Any of you that would like to do this in person are welcome to attend."

They made provisions for the accommodation of 100 or so teenagers. They had 4,000 of them who showed up ready to go through this cave. They say at St. Louis that while they are quite impressed with what educational television has done, they think that the single most significant accomplishment of the station was that of the 4,000 children that went in, 4,000 came out.

Mr. Cox. Is it true that in a number of instances programs developed on educational stations have been put on the networks?

Mr. STEETLE. Yes, this is true, and it is one of the things we said when we were testifying for these channels. We said this would be stimulating and useful to the industry; that there could be some pace-making programs.

One of the children's programs developed at the educational station in Pittsburgh is carried now on Saturdays at NBC, the Children's Corner, a very effective, no-murder, no-violence, "let's speak French and learn manners" type of program. I think there will be more and more of that kind of thing take place, where the educational station develops a program and then sometimes it is given wider circulation, wider use. I think we welcome that kind of switching of our programs and our ideas.

Mr. Cox. Could you tell us, just approximately, how many of the unused VHF educational reservations are in cities of substantial size, where there seems to be any demand for their release for commercial use?

Mr. STEETLE. I think if you took the first 100 markets and you examined what were the possibilities of finding additional VHF channels for commercial use by taking those unused reservations, I think that the most you could gain would be 6 or 7 out of the first 100 markets. So our belief is that while there is a problem in getting sufficient outlets in our major cities, this would be no answer to it, and you would destroy something which is of immeasurable value and significance to this country.

The CHAIRMAN. Thank you. I have no further questions.

Mr. STEETLE. Thank you. I enjoyed it very much.

The CHAIRMAN. Is John Gunther here? Mr. Reed? Mr. Gunther and Mr. Reed can submit statements for the record.

That winds up our witnesses for today. We meet again at 10 o'clock Friday morning. The committee will recess until 10 o'clock on that day.

(Whereupon, at 11:55 a. m., the committee adjourned, to reconvene at 10 a. m., Friday, March 2, 1956.)

TELEVISION INQUIRY (UHF-VHF Allocations Problem)

FRIDAY, MARCH 2, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 a. m., in room G-16, United States Capitol, Senator John O. Pastore presiding.

Present: Senators Pastore (presiding) and Bible.

Senator PASTORE. The hearing will please come to order.

Our first witness is Mr. Reed.

STATEMENT OF RANDOLPH REED, KBMT, BEAUMONT, TEX.

Mr. REED. My name is Randolph C. Reed. I am president of Television Broadcasters, Inc., Beaumont, Tex., operating UHF channel 31.

Our station went on the air in April 1954, serving the 90th market in this country, comprising primarily the tricity of Beaumont, Port Arthur, and Orange, with an estimated population of 260,000 people, occupying approximately 100,000 wired homes.

At the time we began broadcasting, our market was served by unsatisfactory programs from channel 2 in Houston and channel 11 in Galveston. The cost of an antenna installation to make reception possible from those 2 distant stations was approximately \$150.

At the time we began broadcasting we had an affiliation with NBC, CBS, and ABC, but due to the fact that we had no live interconnection, therefore, all programs must be filmed, we receive very few contracts from these three channels.

My reason for not spending the necessary money for microwave connections was the uncertainty of what additional stations would enter our market.

At the time we went on the air there were no other stations in the area; however, channel 4 and channel 6 had been assigned to the Beaumont-Port Arthur territory. A few months later channel 6 was granted to the Beaumont Broadcasting Co., and in April 1955 they went on the air.

With microwave connections they are now showing in excess of 70 CBS and ABC shows each week, and it is my opinion that they must have approximately 80 percent of the listening audience. In the meantime, our revenue has declined each month, until today we have one local advertiser and a few national advertisers for a total

gross income of approximately \$1,600 per month, compared to approximately \$20,000 per month income when we started operations.

I believe that the prime problem for the majority of UHF operators is the delay and indecision of the FCC, and the inability of all of us to anticipate any of their actions. I believe that common-sense and sound business judgment could be applied to a majority of the areas where UHF-VHF problems exist, and satisfactory results could be obtained quickly.

May I hurriedly give you the details of our individual problem and our thoughts toward correction of these problems, not knowing whether or not these facts apply to other areas.

We have an affiliation with NBC wherein we carry about 5 hours of their film programs each week. Were we to have interconnection facilities wherein we could broadcast live, we believe this figure would increase from 5 hours per week to probably 20 hours each week. With this additional programming we could, no doubt, greatly increase our audience and thereby increase our advertising spot sales.

We find it impractical to spend the money for interconnection when the FCC might choose to grant channel 4 at any time. We are quite confident that NBC would move their affiliation to channel 4, because they would then have access to all of the sets in the territory, instead of just those capable of receiving UHF signals.

The Beaumont-Port Arthur-Orange area is not big enough for more than 2 television stations, and I am confident that should there be more than 2, it would be impossible for a third station to operate at a profit.

Were we to receive consent from the FCC to change to channel 12, which I believe was recommended in the CBS report, as well as some others, we could convert in less than 60 days and become interconnected for live broadcast in about the same period of time. It is my personal opinion, should this grant be made, the applicants for channel 4 would not go through with their construction plans.

Having had almost 2 years in the UHF television business, I am convinced that it is almost impossible to make a profit in such a venture without all television sets being equipped for all-channel reception at the point of manufacture.

I also hold the office of president of the Reed Co. in Beaumont, which company serves as distributor for one of the largest manufacturers of television sets in America, and I am fully familiar with the converter, tuner, and all-channel installation problems.

Senator PASTORE. Has anybody applied for channel 12?

Mr. REED. No, sir; it has never been allocated to that area. It was recommended in this report by a number of people.

Senator PASTORE. Let me ask you another question: At the time that you applied for your UHF permit, did you know that channel 4 had been allocated to that city?

Mr. REED. I knew channels 4 and 6 had been assigned but never allocated.

Senator PASTORE. Had been assigned, that is right. You knew that the day was coming when they would come on the air?

Mr. REED. Yes, sir.

Senator PASTORE. Did you protest the granting of the license to channel 4?

Mr. REED. You mean channel 6, probably, because channel 4 has never been granted. Channel 6 is on the air.

Senator PASTORE. Channel 6.

Mr. REED. No, sir.

Senator PASTORE. All right, sir, go ahead.

Mr. REED. It seems to me that the recommendation made long ago regarding excise tax relief on all-channel television sets would have been the greatest and surest solution to the UHF problem.

The sands of time are running out for UHF operators, and I know the days are numbered for our small operation. But I believe that in the not too distant future this committee, the FCC, and all people interested in the future of television will regret the loss of UHF stations. The educational service, the community value, the religious and social benefits of television have only been scratched, but with the very limited number of VHF channels, it will be impossible for television broadcasting to keep up with the demands and progress of the American people.

I am most appreciative of the privilege of being here today, and I trust that I have not overimposed on your valuable time, and may I thank you personally for your efforts in behalf of the UHF industry.

Mr. COX. You were the first station on the air, then, in Beaumont?

Mr. REED. Yes, sir; approximately a year ahead of the others.

Mr. COX. Consequently, at the time channel 6 went on the air, you had no conversion problem up to then?

Mr. REED. That is right.

Mr. COX. Any sets in the area received your signal?

Mr. REED. Not all of them. I would say probably 65 percent of them.

Mr. COX. Some of them made the expenditure to get distant reception from other points?

Mr. REED. There were sets prior to our construction in 1951 and 1952 that didn't have tuners.

Mr. COX. Were you able to get them to convert?

Mr. REED. A great many of them, but not all of them. At that time converter sets cost about \$75.

Mr. COX. How do you feel your coverage, areawise, compares with that of the channel 6 station?

Mr. REED. I believe that 95 percent of the people served by channel 6 are in this tricity area that we can serve beautifully. The farthest point from our transmitter is 18 miles in those 3 cities. When you leave those, you get into the piney woods of east Texas, and there are not very many people.

Mr. COX. So far as the economics of the area are concerned, you can serve it fully as well as the V station?

Mr. REED. Yes, sir.

Mr. COX. Yet despite the fact that you have substantial conversions and no real difference in the area to be served, the appearance of the one V station has virtually wiped out the income that you had received up to that time?

Mr. REED. That is correct.

Mr. COX. In your opinion, a second station would be the absolute death knell for your station?

Mr. REED. Yes, sir.

Mr. COX. Are all-channel sets being sold in Beaumont, or has the appearance of the V tended to induce people to buy only VHF sets?

Mr. REED. It has fallen from ninety-odd percent to twenty-odd percent.

Mr. COX. That is all, Mr. Reed. Thank you.

Senator PASTORE. Have you anything to document that last statement?

Mr. REED. About the 90 percent?

Senator PASTORE. Yes.

Mr. REED. Yes, sir. I happen to be a distributor. I have a pretty close tab on set sales without tuners.

Mr. COX. Could you send us some figures which we can insert in the record?

Mr. REED. The Association of TV Manufacturers puts out a very precise monthly report.

Senator PASTORE. You can realize that is a very important part of your testimony here. If you can document it, it will have some effect in the record.

Mr. REED. I certainly can.

(This material has not been received by the committee.)

Senator PASTORE. Mr. Putnam. How are you, Mr. Putnam?

Mr. PUTNAM. I don't have to be sworn in this case; do I?

Senator PASTORE. No.

STATEMENT OF ROGER L. PUTNAM, STATION WWLP, SPRINGFIELD, MASS.

Mr. PUTNAM. My name is Roger L. Putnam.

Senator PASTORE. May we have quiet in the room, please, so that the witness may be heard? Thank you very much. You may proceed.

Mr. PUTNAM. My name is Roger L. Putnam. I am the president of Springfield Television Broadcasting Corp., which is the licensee of WWLP, a UHF television station in Springfield, Mass.

WWLP went on the air March 17, 1953. We are a medium-sized station in a medium-sized community, owned by local people and endeavoring to provide good service to the community to which we are assigned by the FCC. In so doing, we have been severely handicapped by being forced to compete with WNHC-TV, a VHF station licensed to serve New Haven, Conn., far to the south of us. Because it got a headstart during the freeze, and because of the preference of networks and advertisers for VHF stations, WNHC-TV has had a great competitive advantage. Despite our handicaps, we have made good progress in establishing ourselves as a part of our community. UHF receiver conversion in Springfield is now better than 90 percent. I think it is 100 percent, because the latest survey shows that as many people can reach us as the VHF. There are about 5 percent that can't get the VHF, and about 5 percent that can get the VHF but can't get us.

However, the Commission in the near future intends to force us to compete with a second VHF station on channel 3 at Hartford, which, because it will be somewhat closer, will be an even stronger competitor than WNHC-TV. Based upon our observation of what has happened to other UHF stations forced to compete against two VHF stations,

we do not expect that WWLP will be able to survive very long after channel 3 goes on the air at Hartford. As a part owner of WWLP, I, of course, have a personal interest in the UHF-VHF problem, but what is far more important to me is that, unless UHF survives, Springfield, Mass., will have no local TV service whatever. As a resident of Springfield, I don't relish the thought of being forced to rely for TV service on distant stations in Hartford or New Haven, any more than Providence would like to be served by a TV station in Boston, which is much nearer to Providence than New Haven is to Springfield.

Senator PASTORE. You took the words right out of my mouth. [Laughter.]

Mr. PUTNAM. Excuse me, sir. I am sorry I didn't let you say it yourself.

Senator PASTORE. I have said it here.

Mr. PUTNAM. As a former mayor of Springfield, from 1938 to 1944, I believe that local officials and candidates should have access to local TV stations, too; and as a Springfield businessman, I would be concerned if the Springfield merchants had no opportunity to advertise over a local TV station. As I have said, that is just what will happen to Springfield if UHF TV does not survive, and the same fate faces most of the other cities in my home State of Massachusetts. There is not a single VHF channel allocated in Massachusetts west of Boston.

I know that I am not alone in believing that Springfield is entitled to its own local TV station—most if not all of the citizens of Springfield agree with me. They have shown their willingness to support a local station by spending substantial sums on UHF conversion and UHF antennas. Recently my son, in a brief appearance on WWLP, explained the threat to local TV in Springfield and asked his listeners to write or wire the Commission about it. I am told that this single short broadcast produced over 600 communications to the Commission.

I think it is more, however, than just a question of Springfield. It seems to me that it is a question of the whole country, of how we want to grow. Do we want to keep medium- and small-sized communities alive as communities, or are we trying to force people into a straitjacket? I think that the Congress, in its basic aim in the FCC legislation, wanted to encourage community TV stations; not big monopolies that were going to make everybody get into a straitjacket, but local communities in the local trading areas.

It is apparently the avowed purpose of FCC to do it, but it is not what their regulations are making come about. I think it is important, because we are a nation of separate communities. We are a Federal Union, in a sense. We have community pride. We have all sorts of community needs—community communications is an example of community needs. We have community newspapers; we have community radio. TV is becoming the most important medium of all for reaching people, and I think it is vitally important to the country that we have community TV.

Take just one example: Local merchants can afford to advertise on a local TV station that reaches their community, because they are getting the listeners they want and they can choose it. If they have to go out of town to advertise on a big station, they can't possibly afford it. They are giving the chainstores and people of that sort the advantage from concentration, and the local merchants are pe-

nalized. I think small business is an important backbone of this country, and if we force people into a few big areas we deny local merchants what is obviously one of their most important ways of getting business.

We also deny the local politicians a chance. We in Springfield have no interest in the elections in Hartford, except as neighbors, and except when it is a national election. But think of our Congressman from Springfield having to go to Hartford or New Haven to put his broadcast on the air to reach Springfield people. In the first place, it is putting him to unnecessary expense, and people aren't going to listen in the same way. I think that even more important—

Senator PASTORE. Don't you agree that somewhere along the line we will have to reach a definitive policy as to whether or not TV is going to be used merely to bring to the homes of people national network programs, or whether it is going to be a community service.

Mr. PUTNAM. I think it can be both; I don't see any reason why not. Of course, people want the national programs, but the national programs don't go on all day. There are times in between for the other things. People are going to want to see Groucho Marx, and they shouldn't be denied that privilege.

Senator PASTORE. I think you agree with me, Mr. Putnam, there has got to be a little more than allowing people just to see Groucho Marx or some other national network program. We can't sit back and say, "You have got enough TV because you can see that." There has to be more to it than that. Otherwise I think we have failed in using this tremendous medium of communication.

Mr. PUTNAM. I agree. That is in the act. We feel it ourselves very strongly. One of the reasons we have so many conversions is because we don't go only for Groucho Marx.

Senator PASTORE. We need equitable distribution.

Mr. PUTNAM. We believe that, and we are supposed to do community-service programs as well. We have tried to very hard. I think that is one of the reasons we have been so successful in getting conversions. It is not just an entertainment; it is a community service. I tried to say your own words, Senator; you said them better than I did.

Senator PASTORE. You are gracious, as always, but we both said the same thing.

Mr. PUTNAM. Well, local charities are another example. If our hospital wants to raise money, does it have to go to New Haven and put it on the air? New Haven doesn't want to put it on the air.

Senator PASTORE. Or do without TV.

Mr. PUTNAM. Yes, and the great advantages TV can give them. I won't stress that point. What is happening, I think we all know: Stations are being abandoned, lots of construction permits are not being used, others aren't even applied for in local communities, because it just has turned out not to be profitable, in the local communities, for UHF to compete, in most cases, with VHF. I can say that because I think we are one of the ones who have been able to do so. We are one of the relatively few who are, at the moment, in the black—not much, but a little bit.

Now I have got two suggestions. One of them I am sure is the right one, but I am sure nobody will do it, but I will just say it for the record: I think the right one is for stations to be given only the

wattage and the tower height to cover the areas they are assigned for. There is no need that New Haven, for instance, should have coverage reaching up beyond Springfield, 65 miles away, when there are stations allocated for Hartford, Middletown, New Britain, and Springfield. I think that all stations should be given only the power to cover the area they are allotted for. That, I think, is the right solution. I don't think it will be done.

Senator PASTORE. I have been talking with members of the Commission. I am not a technician, but their problem in that direction, and I would like your comment on it, is essentially this: First of all, of course, there is a desire to see that everyone gets TV. There are certain gray areas where you cannot come in unless you give the station a little more power. In other words, if you could tell these radio waves, "You stop at the city line of Springfield and don't go further than that," it would be easy. After all, you are dealing here with the elements of nature. The minute you throw out this wave, something happens to it and it spreads. How far it will go depends upon how much impetus you give it with power.

The argument that the Commission makes—and I am trying to get your opinion on this—is this: That it is not really a question of drawing a circle this way, and drawing a circle that touches it there [indicating], because somehow you get into trouble in here, where you get the clash between the two signals. What they try to do is this sort of thing [indicating again] so that these people, while they may have twice as much as these people, yet no one is being hurt by a confused signal. What do you have to say to that in regard to this problem of confining signals more closely?

Mr. PUTNAM. I would say this on that: That I agree completely with the Commission's philosophy as you drew those pictures, and if the allocation that the Commission made in 1952 was all taken up, there would be no gray areas. What they are doing now, however, is putting a circle as big as that whole block in the middle of it.

Senator PASTORE. In other words, if they take 2 or 3 stations out of New York City, they have got the New England problem solved?

Mr. PUTNAM. That is not what I am saying. I am saying—for instance you drew a circle that interlocked another circle like this [indicating], and what they are doing is putting another circle that covers all of them. That is what I think is wrong. I mean, for instance, again, taking New Haven—they have got allocations for New Britain, Waterbury, New London, 2 for Hartford, 2 for Springfield, and yet they let New Haven have power enough to cover all that area. If channel 3 goes into Hartford, it will have power to cover or blanket at least 6 UHF possible allocations—I think 8.

Senator PASTORE. Let me ask you this question, Mr. Putnam: If you did not intermix the Connecticut Valley, do you think that everyone could be serviced through UHF satisfactorily?

Mr. PUTNAM. I think if you look at a map, Senator, there isn't anybody that wouldn't have at least class A coverage from 2 stations, and most people will have 3 or 4 stations. They can get class A coverage out of the UHF allocations in the Connecticut Valley if they are all taken up. I think there is nobody anywhere who cannot get class A service from at least two stations, and many of them from more. The technicians tell me that. I am not a technician, either.

Senator PASTORE. Yes, sir.

Mr. PUTNAM. Does that answer your question?

Senator PASTORE. Yes.

Mr. PUTNAM. I think, too, there is a difference between the crowded Northeast and the rather open western part of the country. I think Denver, for instance, maybe needs a lot more area to cover than Hartford does, because it is a much bigger trading area. People come from hundreds of miles to trade in Denver. They come from only 30 or 40 miles to trade in Springfield or Hartford.

Senator PASTORE. In other words, you could get more and more overlapping of these circles that I have just drawn on this pad if you would cut down the power and grant a few more permits.

Mr. PUTNAM. That is right; so all the places that have been allocated would find it profitable, or would be capable of putting up stations. Those grants have not all been taken up, because the way the thing is going it has not been possible or profitable for people to do so. It has to be profitable to be possible. So I think they all ought to be cut down.

Senator PASTORE. I have to leave, sir, and Senator Bible will take this meeting over. You be good to our witness. [Laughter.]

Mr. PUTNAM. I want you to know what I think should be done in the Connecticut Valley. Channel 3 should be taken from Hartford and given to Providence. Providence is a VHF area, and the Connecticut Valley is a UHF valley.

Senator PASTORE. You are a diplomat. I will read the testimony.

Mr. PUTNAM. All right, sir.

I was saying, Senator Bible, that I thought the important thing was to keep local community television possible, and that the simplest way to do it was to cut stations down to the size for what they were originally granted for. I said I didn't think that would be done, so I have a second suggestion, and I can see no reason why it should not be done. I have to use our own station somewhat as an example, but I think it applies.

WWLP is one of four stations which, in a case which I understand has been mentioned here before, have urged the Commission to deintermix the Connecticut Valley. This case is usually referred to as the Hartford case, but, as I have indicated, much more than the city of Hartford is involved. I would like to take a few minutes to tell you some of the details of what I call the Connecticut Valley case, because I think I can explain the merits of deintermixture best by showing just what it can accomplish in a particular case, rather than talking generalities. This deintermixture proposal involves the entire Connecticut Valley, from Long Island Sound to the New Hampshire border and possibly north of that. Within this area are the television markets of Holyoke-Springfield, Mass., and Hartford-New Britain, Conn., with a total of 716,200 families and retail sales in 1953 of almost \$3 billion. On the border of the area are the television markets of New Haven and Waterbury, Conn., and Adams-Pittsfield, Mass., with about 1,300,000 families and retail sales in excess of \$5 billion.

Six television stations presently serve the Connecticut Valley. Five of these are UHF stations. They are, in addition to WWLP, WHYN-TV, Springfield, WGTH-TV, Hartford, WKNB-TV, New Britain, and WATR-TV, Waterbury. The sixth station is WNHC-TV, a prefreeze VHF station which is licensed to New Haven. As you can see, the Connecticut Valley is a predominantly UHF area,

with five UHF stations, against a single VHF station. The valley receives no significant VHF service from outside. This is shown by the predicted service contours of the outside VHF stations, confirmed by listener surveys in the area. Channel 3 at Hartford is the only VHF channel which remains available for assignment in the Connecticut Valley.

The five UHF stations which are now on the air provide at least one grade A service to practically all of the valley. Most of the valley receives two or more grade A services from these stations. Other UHF stations situated slightly outside the valley area provide service to substantial portions of the valley. These stations are: WMGU, Adams-Pittsfield, Mass., and WICC-TV, Bridgeport, Conn. When the coverage of these stations is taken into consideration, virtually all of the valley receives at least two grade A UHF services. There are two other channels allocated to the valley that haven't been taken up.

A study of the potential UHF service in this area, based upon the present assignment table, indicates that the entire area would have access to a minimum of eight grade A UHF services. On the basis of grade B coverage, a veritable maze of service is indicated, with the entire area receiving a minimum of 13, and some sectors as many as 27, services.

The valley residents are in general well satisfied with their UHF service. UHF conversion is better than 90 percent in all of the valley, except the area close to New Haven. The relatively favorable position of the valley UHF stations has made it possible for them to obtain network affiliations. WGTH-TV is affiliated with CBS; WKNB-TV is affiliated with NBC; WHYN-TV is affiliated with CBS; and WWLP is affiliated with NBC and ABC.

Notwithstanding the modest success of UHF stations in the valley and their ability to offer a substantial quantity of popular network programs, the New Haven VHF station remained up to recently the dominant station in the valley, not only in its own city, but throughout the area. I am glad to say that in the last 6 or 8 months that situation is improving, and recent surveys show that, I think, we are the dominant station in our area at the moment—but we only have 1 VHF station to compete with, not 2.

Believing that the establishment of a commercial station on channel 3 at Hartford would threaten the continued existence of all of the UHF stations in the valley, as well as absolutely preclude the establishment of any additional stations, four of these stations (WWLP, WHYN-TV, WGTH-TV, and WKNB-TV), petitioned the Commission for the removal of channel 3 from Hartford, giving them another UHF channel instead.

After first denying our petition, the Commission later reconsidered and ordered formal rulemaking on our proposal, as well as on four other similar proposals. Written comments were filed in May of 1955. As requested by the Commission, we submitted a detailed showing, which included extensive engineering and economic data as well as additional information on viewer surveys, network affiliations, and the complete history of the experience of UHF television stations in inter-mixed markets throughout the country.

Oral arguments was held before the Commission in July of 1955, in which the deintermixture proponents, as well as reviewing the

merits of the five specific proposals which were before the Commission, also submitted a plan of selective deintermixture, which showed what could be accomplished by deintermixture on a national basis. I have attached a copy of this plan to my statement and request that it be recorded for the record.

Senator BIBLE. That will be the order.

(The document referred to is as follows:)

A PLAN OF SELECTIVE DEINTERMIXTURE

The purpose of this memorandum is to explore the possibilities and results of a plan of selective deintermixture "to be uniformly followed, wherever possible, in the effectuation of our allocation table for a nationwide television system."¹ The plan would be limited to substituting UHF channels for ungranted VHF channels in areas now being served by UHF stations and where the conversion to UHF has been substantial enough to provide assurance that the UHF stations will be able to compete effectively if new VIII^F stations are not authorized.

The plan would keep UHF alive and vigorous in about 25 of the top 100 markets, with the expectation that, through excise-tax relief or otherwise, all-channel receivers will ultimately become universally available, thereby permitting the fulfillment of the objective of a fully competitive nationwide television service and mass utilization of the UHF band over a 3- to 7-year period.

Under the plan, which for illustrative purposes has been limited to the top 100 markets, approximately 14 ungranted VHF channels in 13 markets would be affected. These channels could be reallocated to other areas where additional VHF channels are needed because the VHF stations have so substantial an advantage that UHF cannot compete. (See illustrations which follow.)

The plan of limited deintermixture here proposed would accomplish the following:

(a) Maintain and create a substantial number of UHF strongholds in order to provide a continuing market for UHF receivers and give UHF a further opportunity to demonstrate that it can provide a service satisfactory to the public and the advertiser.

(b) Bearing in mind the present limitations of economic support for television in the smaller markets, maintain competitive local television in as many markets as possible.

(c) Save as many existing UHF stations as possible to preserve the value of current investment in UHF equipment, particularly the public's investment in receiving equipment.

(d) Maintain enough UHF stations to justify the manufacture of and improvements in UHF receivers and transmitters, removal of the excise tax, and retention of the 70 UHF channels.

The following propositions are regarded as established by experience to date:

(a) No matter what the size of the market, UHF has not been able to compete against two or more local VHF stations or strong VHF signals from outside stations serving the same community.²

(b) In markets of sufficient size UHF can survive where no more than 1 local VHF station or strong outside VHF signal is present, since this means that 2 of the 3 major networks will have their programs on UHF in these markets.

(c) In the smaller markets a single VHF station or strong outside VHF signal is fatal to UHF.

The plan is based on the following principles:

(a) No authorized VHF station will be required to shift to UHF. The plan will be limited to ungranted VHF channels, i. e., those now in hearing where final grants have not yet been made.

(b) In those markets in the top 75 or 100 that are now served by UHF only or by UHF and not more than one grade A VHF signal, deintermixture will be under taken by not granting the unassigned VHF channels that are still in hearing status and by replacing them with UHF.

¹ The quotation is from the Notice of Further Rulemaking, Albany-Schenectady-Troy Assignments, docket 11238, FCC mimeo 18282, April 21, 1955.

² There may be 1 or 2 exceptions to this, such as Worcester (32d market) and Akron (45th market), which have no VHF stations of their own but receive 2 or 3 strong VHF signals from outside stations (Boston and Cleveland, respectively). Even in Worcester and Akron, however, conversion to UHF has lagged.

(c) Where two VHF stations now serve an area, deintermixture will be undertaken where a third VHF channel can be added.

(d) In the smaller intermixed markets, additional VHF channels will be allocated where possible, either by "dropins" or by using VHF channels made available through deintermixture of other markets.

(e) Before an ungranted VHF channel is removed from a market, it must be shown that approximately 40 percent or greater conversion to UHF has been accomplished and that adequate additional VHF channels cannot be allocated to take care of all existing UHF stations.

(f) UHF channels will be substituted for the deleted VHF channels, thereby making available for the VHF applicant a channel on which he can compete on equal terms with the existing UHF stations that have pioneered the market.

Applying this plan to the top 100 markets would have the following advantages:

(a) About 25 of the first 100 markets would be either UHF only or markets with 2 or more UHF stations and not more than 1 grade A VHF service. There would be a total of approximately 65 UHF stations in these markets.³ (See attached map.) About 8 million television families reside in these markets (Television Magazine, Data Book, 1955, pp. 79-87).

(b) The 22 markets which are now allocated only 2 VHF channels would be reduced to about 10.

UHF ONLY

1. Allentown-Bethlehem-Easton, Pa. (2 and probably 3 stations.)
 2. Scranton, Pa. (three stations).
 3. Wilkes-Barre, Pa. (two stations).
 4. Springfield-Holyoke, Mass. (two stations).
 5. Springfield-Decatur, Ill. (2 and probably 3 stations).
 6. Peoria-Bloomington, Ill. (3 and probably 4 stations).
 7. Evansville, Ind.-Henderson, Ky. (2 and probably 3 stations).
 8. Fort Wayne, Ind. (three stations).
 9. Madison, Wis. (three stations).
 10. Youngstown, Ohio-New Castle, Pa. (three stations).
 11. Fresno-Tulare, Calif. (3 and probably 4 stations).
 12. South Bend-Elkhart, Ind. (three stations).
- Total: 36 UHF stations.

TWO OR MORE UHF STATIONS AND NOT MORE THAN ONE GRADE A VHF SERVICE

1. Hartford-New Britain-Waterbury (four UHF stations).
 2. Albany-Schenectady-Troy, N. Y.-Pittsfield, Mass. (three UHF stations).
 3. Norfolk (three UHF stations).
 4. Jacksonville (three UHF stations).
 5. Miami-Fort Lauderdale (three UHF stations).
 6. Hatfield, Pa. (three UHF stations).
 7. York, Pa. (two UHF stations).
 8. Reading, Pa. (two UHF stations).
 9. Raleigh-Durham (two UHF stations).
 10. New Orleans (three UHF stations).
 11. Beaumont-Port Arthur (two UHF stations).
- Total: 30 UHF stations.

The plan would require the deletion of 14 ungranted VHF channels in Hartford, Fresno, Peoria, Jacksonville, Miami, Springfield (Ill.), Evansville, Hatfield, New Orleans, Raleigh, Norfolk, Port Arthur, and Madison. It would also make the VHF channels deleted available for use in areas where additional television service is needed but where, because of VHF predominance, UHF cannot do the job. For instance—

1. The Hartford VHF channel could be utilized in the Westerly, Rhode Island area to make Providence a three-VHF market.
2. The Fresno VHF channel could be allocated to Bakersfield to make it a two-VHF station market.
3. The two Miami VHF channels could be utilized to provide a third VHF station in Tampa-St. Petersburg and another VHF channel in one or more of several other Florida cities. If the Miami channel change were tied in

³ There are an additional approximately 25 UHF stations now in operation in other markets (mostly below the top 100) that also have a reasonable chance to succeed, and approximately 20 other UHF stations that probably will be unable to survive as UHF stations even if this plan of deintermixture is adopted.

with the Jacksonville change, other underserved Florida cities could also get additional VHF channels.

4. The Peoria channel could be allocated to provide a third VHF station in the Rock Island-Davenport-Moline area.

5. The Springfield, Ill., channel could be allocated to provide a fourth VHF channel in St. Louis and a second VHF in the Terre Haute area.

6. The New Orleans VHF channel and the Port Arthur VHF channel could be allocated so as to make Baton Rouge, Lake Charles, and Pensacola each two-VHF station markets.

7. The Madison channel could be reallocated to make the Rockford area a two-VHF area.

June 27, 1955.

Mr. PUTNAM. On November 10, 1955, the Commission decided that notwithstanding the great quantity of material which had been submitted in the five deintermixture cases, it still did not have sufficient information, and that it must start a new and more general rulemaking proceeding in which it would consider various plans, including deintermixture, for a nationwide television reallocation. In the meantime, our proposal to deintermix the Connecticut Valley was "denied without prejudice," with leave to resubmit it at some stage in the general proceeding.

The first and second round of comments in the general rulemaking proceeding were filed on December 15, 1955, and February 8, 1956. About 400 comments and reply comments were filed, but there is little or nothing new in them.

The suggestions that have been made to the Commission boil down to these:

(a) Deintermixture—which has widespread support. Most of the major organization in the industry have endorsed deintermixture of one sort or another, including American Broadcasting Co., National Broadcasting Co., and Radio Corporation of America, Columbia Broadcasting System, General Electric Co., and Storer Broadcasting Co.

(b) Abandon the UHF entirely and get along with the existing 12 VHF channels—which has almost no support.

(c) Move all television to the UHF—which also has almost no support.

(d) Abandon UHF and replace it with some additional VHF channels, which would have to come either from frequency bands which are now devoted to national-defense purposes or from bands which are being used by other important services which have made very substantial investments in them.

Because this last proposal has some surface appeal, there is quite a little support for it. It has some substantial drawbacks, however.

First, a station operating on a new VHF channel would be worse off than a UHF station, because to begin with, at least, there would not be a single television set in its area which could receive it. And having started a UHF station in what was a VHF area, I do not think anybody wants to get people to go through a second set of conversions. We had to make everybody spend from \$75 to \$100 in our area to be able to receive us. We have succeeded in doing that. I would hate to have to do that over again, and think of what the people who have got UHF receivers would feel if they had to convert again.

Senator BIBLE. Is that pretty well established cost of conversion, \$75?

Mr. PUTNAM. I think that is a good average; if you are an electrician yourself and can do your own work, you can stick an antenna on your roof, and probably do it for \$15 or \$20. For the man who isn't a mechanic or electrician it is from \$50 to \$75.

Senator BIBLE. I understood you to say \$75.

Mr. PUTNAM. I should have said \$50 to \$100, depending on the kind of antenna you use. I think the minimum is \$50 and the maximum over \$100. I did say \$75 as sort of an average, sir.

Second, it is now pretty well recognized that only a handful, if any, additional VHF channels could be made available to television. Let us take a look at what will happen to local television in Springfield and elsewhere if the Commission junks the UHF and adds a few VHF channels. The leading proponent of such a course of action is CBS. CBS has submitted two plans for television reallocation. In its plan II, which it says is the better plan, it recommends the addition of three new VHF television channels.

Springfield falls in what CBS calls the Hartford television market, which is approximately the same area that I have referred to here as the Connecticut Valley. Within the CBS Hartford market are the counties of New Haven, Middlesex, Tolland, Litchfield, and Hartford, in Connecticut, and Hampden and Hampshire in Massachusetts. Its area is 5,606 square miles. It includes 4 cities of over 100,000 population, 2 cities with over 50,000, 2 others with over 40,000, and 9 more with populations between 8,000 and 36,000. Within this area 22 daily newspapers are published and 30 standard and 8 FM radio stations are in operation.

Yet, CBS plan II makes provision for just 3 television stations: 1 on channel 3, 1 on channel 8, and 1 on a new VHF channel, 6C—and all to be located in Hartford or New Haven. This is the sort of television service which the Connecticut Valley will be limited to if the Commission follows the recommendations of CBS. As monopolistic an idea as I think I have ever heard.

While the Commission is pondering how to solve the UHF-VHF problem, it is going right ahead making additional VHF assignments which aggravate that problem. In justification of this action the majority of the Commission asserts that the additional VHF grants will not prejudice its ultimate decision on deintermixture and that, in any case, the decision whether to deintermix a particular city should not turn on the fortuitous circumstance of whether VHF stations are or are not on the air there. I submit that that is arrant nonsense. I submit that both of these reasons are arrant nonsense. The Commission has always been reluctant, and properly so, to disturb existing operations. When in the sixth report it framed the present allocation plan, it went way out of its way to avoid requiring the prefreeze stations to shift frequencies, even from the high to the low VHF band, or vice versa, and not a single station was shifted to the UHF.

Besides, in many areas where additional VHF service is being established, the public, in reliance on that service, will start buying VHF-only receivers. Under such circumstances, taking the VHF service away would become a very serious matter, a matter affecting the public interest in that area, which the Commission could not ignore even if it wanted to. For these reasons, the additional grants now being made are bound to prejudice the eventual decision.

Now, the Commission may be right in suggesting that we will not get enough deintermixture merely by withholding the relatively few VHF channels that are not yet granted. But it is perfectly clear that the first places to deintermix are those in which UHF is already reasonably well established. Those are the places where deintermixture makes the most sense. And high UHF receiver circulation is simply not to be found where two or more VHF stations are on the air. It would be utterly ridiculous to make the Connecticut Valley, which has plenty of UHF receivers, a VHF area, and New York City, which does not have a single UHF receiver, a UHF area.

Whether we have a little deintermixture or a lot, the first places we will have it will be those, like the Connecticut Valley, where UHF receiver circulation is well above 50 percent. I think except for New Haven it is 90 percent north of that. That is, we will have it if there are any such places left when the Commission gets around to deciding on deintermixture.

We pointed these things out in a petition asking the Commission not to make a grant on channel 3 at Hartford until it has been decided where we are going in television allocations and whether the Connecticut Valley is to be deintermixed. Recently the Commission denied the petition and scheduled oral argument on the channel 3 Hartford applications. In our petition we requested the Commission to reconsider its denial of our deintermixture proposal. I understand this request was denied yesterday.

I would like to go back to our proposal to deintermix the Connecticut Valley and discuss its merits briefly. The following are the more significant points favoring the proposal:

(a) Unless the valley is deintermixed, it will be limited to a maximum of two grade A VHF services, and a substantial portion will receive no grade A service. No cities in the valley will have local television stations except Hartford and New Haven.

(b) Deintermixture in the Connecticut Valley would not result in any "white areas." The UHF stations now operating in the valley provide grade B service to all of the valley and grade A service to all but an insignificant portion. Increase in the powers and antenna heights of the existing stations would wipe out any theoretical grade A "white area" which now exists. If UHF is permitted to prosper in the valley, the stations which could be established on presently allocated UHF channels would provide a multiplicity of services throughout the valley.

(c) Deintermixture in Hartford would benefit a large area. The Connecticut Valley, an area approximately 40 miles wide and running 100 miles generally northward from Long Island Sound to the Massachusetts-Vermont border, is a predominantly UHF area which can never hope for adequate VHF service. Competitive and local television in this area depends upon the success of UHF. The existing VHF station in New Haven and the proposed VHF station in Hartford would provide listenable signals throughout the area seriously threatening the existence of all UHF stations in the valley, as well as precluding the establishment of new stations.

(d) Deintermixture in Hartford has been supported by a total of 10 stations. The four UHF stations in Holyoke and Springfield, Mass., and Hartford and New Britain, Conn., have petitioned for deintermixture. In addition, letters favoring deintermixture have

been filed by WATR, Waterbury, Conn.; WMTG-TV, Adams, Mass.; WWOR-TV, Worcester, Mass.; and WICC, Bridgeport, Conn. These four stations lie outside the Connecticut Valley proper but would be greatly benefited by the success of UHF in the valley. Farther support for deintermixture in the Connecticut Valley has been expressed by WNET, Providence, R. I.; WICH (AM), Norwich, Conn.; and WNLC-TV, New London, Conn. Opposition to deintermixture in the Connecticut Valley has been expressed only by the two applicants for channel 3 at Hartford.

(e) Deintermixture of the Connecticut Valley would not result in the waste of a VHF channel. If channel 3 is removed from the commercial service at Hartford it can be used to relieve the shortage of VHF channels in Providence and the coastal area south of Providence where UHF has no chance of survival for the foreseeable future. The city of Providence now has two VHF stations on the air and no other VHF channels available. A UHF station operated there for a while until driven off the air by the advent of the second VHF station. The only way to bring competitive television to Providence and the surrounding area is through an additional VHF channel. Channel 3, if removed from Hartford, can serve this purpose.

Now, what are the arguments that have been made against deintermixture in the Connecticut Valley? First, it is claimed that we need the service from channel 3 at Hartford. We agree that the Connecticut Valley needs more television service. But, is putting 1 additional station on the air at the risk of taking 5 off any way to get more television service? As we have shown the Commission by uncontroverted evidence, channel 3 is not needed to erase any "white areas." There are no "white areas." What the Connecticut Valley needs is additional local service in Hartford and in other cities which now have no stations. Channel 3 can provide local service to Hartford, but only at the cost of precluding any local stations in most, if not all, of the other cities in the valley. The answer to more television service in the Connecticut Valley is to strengthen the UHF. In the Providence area more television service is also needed, and here UHF cannot supply the answer, but deintermixture will, by releasing channel 3 for assignment to Providence.

Next, it is argued that deintermixture would be unfair to the channel 3 applicants who have spent a lot of money in a comparative hearing for that channel. Undoubtedly the VHF applicants would be disappointed if channel 3 is moved from Hartford. But unlike the UHF stations which will be forced off the air if channel 3 is granted, the VHF applicants are not faced with the possibility that they will be excluded entirely from the television industry. UHF channels could easily be made available for them, and as UHF operators they would enjoy the benefits of the pioneering work which has been done by the existing UHF stations. Why, then, are they so anxious for channel 3? They want it because they know that with channel 3 they will have an overwhelming competitive advantage, and, in fact, will enjoy a virtual monopoly. I submit that no amount of hearing expenditures would entitle them to such a monopoly. A fair opportunity to compete on an equal basis, which they would have on UHF, is all that any broadcaster should have a right to expect.

Finally, it is argued that deintermixture is unnecessary—that the UHF stations can survive without it. This flies in the face of all UHF experience to date. A consensus in the industry is that UHF stations cannot survive against the competition of two VHF stations except under very unusual circumstances. I know the question has been covered extensively by earlier witnesses, and I do not believe I should weary you with any more on it.

Thank you very much for listening patiently to this.

Senator BIBLE. Thank you very much, Mr. Putnam. I think your statement certainly is very exhaustive, and I cannot help but comment that it is rather an unusual happenstance that the present chairman comes from the State of Nevada, where our main problem is just to try to get one little feeble signal from one little VHF station wherever we can find it. We have 3 stations, 1 in Reno and 2 in Las Vegas. We have a problem trying to get one little feeble signal. Not to say it is refreshing, but at least your statement poses the other side of the problem.

Mr. PUTNAM. I understand your problem somewhat because I am nearly half a citizen of Arizona, and—

Senator BIBLE. I can't see why you ever went back to Massachusetts. [Laughter.]

Mr. PUTNAM. I go to Flagstaff a great deal. I like it in Massachusetts, too.

Senator BIBLE. They are both great States.

Mr. PUTNAM. It is a completely different problem. I think what is needed in the crowded congested areas may be very different from what may be needed in the more squarely settled areas.

Senator BIBLE. I recognize that fully.

Mr. PUTNAM. I know the problem Flagstaff has. They have solved it for the moment by piped-in television. They have on the hill a receiver to get the Phoenix stations, and you can get a connection through the telephone company for wires from that receiver down to your home. They are working it in sort of a backhanded way.

Senator BIBLE. Even though we are a small and lightly populated area, the people of Nevada are just as interested in receiving TV as your great populous areas. My main problem at the present time is to see whether we will take a little booster or translator to take a signal from VHF channel 4, San Francisco, to allow some three or four thousand people to see TV. So it does have complex problems. I just couldn't help but comment on the difference in approach.

Mr. PUTNAM. I think the people of Nevada are just as entitled to get TV as the people of Springfield.

Senator BIBLE. I am sure that is so.

Mr. PUTNAM. I think they are entitled to get it as close to home as can possibly support it, because then it will have more of their interest at heart, as we said earlier. I think everybody is entitled to see Groucho Marx, but they also want to know of their own community problems.

Senator BIBLE. Certainly.

Mr. PUTNAM. And what is the right answer in Nevada I do not pretend to know. I think I do know what is the right answer in the Connecticut Valley, and I am quite sure it is different from the right answer to Nevada.

Senator BIBLE. I answered that by way of qualifying the chairman. His problem today does not involve getting too many channels.

Mr. PUTNAM. Please do not let your feeling as to Nevada prejudice you against New England.

Senator BIBLE. I am sympathetic. I hope it can be worked out. I think possibly the committee's counsel may have some questions.

Mr. Cox. Thank you, Senator Bible. As I understand it, Mr. Putnam, there are two existing UHF stations in Springfield.

Mr. PUTNAM. Plus the Holyoke station. That is right.

Mr. Cox. You mentioned network affiliation for a number of stations in the area. Does your station have a network affiliation?

Mr. PUTNAM. Yes, NBC and ABC, and we have been very fairly treated by all of them.

Mr. Cox. Are you interconnected so that you receive live programs?

Mr. PUTNAM. We receive live programs.

Mr. Cox. Have you found that the coverage of your area by the station from New Haven impairs your ability to sell national spot advertising in your own market?

Mr. PUTNAM. It did for a long, long while. It has become better, because recently, by spending much more money than we had in local programming and local news and local interests—religious, charitable, and so forth, we have got people gradually to convert. Now we get a very good listening audience. We have just gotten into the black by about that much [indicating] for the moment.

Mr. Cox. Are you finding that the local businessmen in the Springfield area do want to advertise over TV and are supporting your station?

Mr. PUTNAM. They do. Actually, our local advertising revenues are now just about equal to what we call our national—that is the national spot. I am not counting what we get from the network, but our local is just about equal to our spot. I have the figures, if you want them, for last year. It is just almost exactly equal.

Mr. Cox. Would you feel that if the threat of channel 3 were removed from the valley there would be a development, or an inclination to use the remaining unallocated UHF channels in the area, and that there would be economic support from local and national advertising for those stations as well?

Mr. PUTNAM. I think it would come slowly. I am not sure it would come right away. The experience we have had of 2 years of very substantial losses—and I think our other stations have had the same—would, I think, make people hesitate until they saw us really making money until they jumped in, where our heads are just breathing a little air now. We are not really swimming around enjoying ourselves yet.

Mr. Cox. This distinction between your situation and Senator Bible's situation, doesn't that point up the fact that UHF is particularly important in these more densely populated areas, because if you are to get local services on any basis you require more channels than are available in the VHF band?

Mr. PUTNAM. That is what I am trying to say. The populous areas, I think, should be deintermixed; the ones that are predominantly VHF, allocate another VHF channel if they need it, take it away from places in the middle of UHF areas which are well converted.

The Senator's problem is not one of deintermixture at all. It is getting enough. Where we have too many, don't put VHF in. When I say too many, I mean too many to be profitable. The thing I am afraid of, as I said earlier, in our area the local merchants will be put to great disadvantage to the chains if only an area station dominates the whole thing. The Springfield merchant cannot afford to advertise on a station that blankets Hartford, New Haven, and Springfield because the rates will be too high. The chains can.

Senator BIBLE. I think that is all. Thank you very much for your presentation.

Our next witness is Mr. Paul Chamberlain, General Electric Company of Syracuse, N. Y. Before you start your testimony, Mr. Chamberlain, there are a number of insertions for the record:

(1) A letter from Mrs. Kate Hevner Mueller, chairman of the education committee of the American Association of University Women, regarding educational TV.

(2) A letter dated February 15, 1956, from Senator Magnuson to the Chairman of the Federal Trade Commission, Washington, D. C., regarding radio advertising, and the Federal Trade Commission's reply, both of which will be printed in connection with earlier materials on this subject (see pt. I, pp. 250-252).

(3) An editorial on misleading advertising from Variety, under date of February 22, which will be printed in connection with other similar materials (see pt. I, p. 260).

(4) Letters from Senator Styles Bridges and Senator Norris Cotton, of New Hampshire, asking that identical telegrams received by them from Mr. Joseph K. Close, operator of a UHF television station, be inserted in the record.

(5) A letter from Senator Wayne Morse and two statements from Oregon residents;

(6) The statement of J. E. O'Neill, the operator of UHF station KJEO, Fresno, Calif.; and

(7) The Statement of Thomas E. Howard, of the Jefferson Standard Broadcasting Co., WBTB, Charlotte, N. C. These can be inserted in the record at this point, except as noted with respect to items 2 and 3.

(The information referred to is as follows:)

ITEM 1

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN,
HEADQUARTERS OFFICE,
Washington, D. C., January 31, 1956.

Senator WARREN G. MAGNUSON,
*Chairman of the Senate Committee on
Interstate and Foreign Commerce, Washington, D. C.*

MY DEAR SENATOR MAGNUSON: For many years the American Association of University Women has maintained an active interest in the development of the resources of radio and television for the educational and cultural needs of the American people. For that reason members of the association are deeply interested in the hearings being conducted by your committee on TV Network Regulation and the UHF Problem. We realize that the educational television problem is only one of the many being considered by your committee, but because of the tremendous importance of this medium for education we respectfully urge your committee to continue to protect the interests of education.

The education committee of the AAUW wishes to call to your attention the association's stand as set forth in the attached letter addressed to Miss Mary Jane Morris, secretary, Federal Communications Commission, dated Decem-

ber 14, 1955, in response to its request for comment on the possible amendment of part 3 of the Commission's Rules and Regulations Governing Television Broadcast Stations (docket No. 11532).

May we request that this correspondence be made part of the official record of the hearings?

Respectfully yours,

KATE HEVNER MUELLER,
Chairman, Education Committee.

DECEMBER 14, 1955.

MISS MARY JANE MORRIS,

*Secretary, Federal Communications Commission,
Washington, D. C.*

DEAR MISS MORRIS: The American Association of University Women, through this letter, wishes to accept the invitation extended by the Federal Communications Commission to comment on the possible amendment of part 3 of the Commission's Rules and Regulations Governing Television Broadcast Stations (docket No. 11532). The association desires to confine its comments to the importance of reservations for educational noncommercial television in the educational and cultural development of the American people.

The American Association of University Women, which was established in 1882 as an educational organization (see exhibit A), is an organization having a membership from all over the United States, of more than 136,000 women, all of whom are college graduates. The AAUW has 1,332 branches, with a minimum of 5 in every State except Rhode Island, and Alaska, Hawaii, and Guam. It has been estimated that about one-third of the members are single and that nearly one-half are married and have children. Furthermore, well over one-half are, or have been, teachers.

The association's program to improve American education has been on a year-in-year-out basis, nationally and internationally, with special efforts wherever and whenever circumstances required. The association has been alert to new developments, including radio and television, which could benefit education and has been prompt in advocating their employment for educational and cultural improvement. At least since 1945, AAUW has had a national policy supporting the educational and cultural use of the new techniques of communication. This policy was reaffirmed at the June 1955 biennial convention as follows:

"We recognize the important effect which libraries, films, radio, and television have upon the education of American children, youth, and adults, and we will continue to work to extend and to improve their educational and cultural use."

The association in 1950 presented, through its education committee, testimony which requested the Federal Communications Commission to set aside specific channels for the development of educational noncommercial television. The committee was pleased when the Federal Communications Commission found it desirable to make these allocations. Further, insofar as refusing to delete any of these reservations, the committee believes that the FCC has followed a policy which is in the public interest.

The education committee has followed very carefully the efforts of the FCC to foster the development of a nationwide competitive television system, and is also aware of the many problems, including those which center around the use of UHF channels, which the FCC has faced and will face as it studies and determines its future policy. However, for the sake of American education, the committee earnestly requests that the FCC continue at this critical time the policy of fixed reservation of channels specifically for educational noncommercial television.

This request is made on the basis of the record of activity to get educational television stations on the air, of AAUW experience in the use of both commercial and noncommercial television and radio over a number of years, experience which has convinced the committee that the fullest development of television for the educational and cultural needs of the people can only be brought about through continued specific television reservations for educational use. The committee wants to make it clear that this recommendation is not an attempt to freeze unthinkingly the status quo, but that it is made particularly in the interest of scientific and educational progress of television for the benefit of future generations.

In recommending the retention of educational noncommercial reservations, the education committee of AAUW is cognizant that only 18 stations of the 258 possibilities are on the air. However, we believe that it is only fair to education to record additional use of reservations in terms of 35 construction permits granted, some of which have already reached a testing stage, and 15 other applications filed. This full record shows that education has been active in taking advantage of the resource put at its disposal.

Education, including AAUW, maintains that this is a case where a mere quantitative evaluation will not tell the whole story, and that policy for continuing reservations should be based on an evaluation of all factors in the situation.

By its nature, education is not geared to respond easily or quickly to projects which require extensive financing. This alone would account in part for the seeming delay of educators to take advantage of a priceless opportunity for educational development, but in this case there were in addition many other factors which made it difficult to respond quickly to their opportunity. For example, the very idea of television was still new in 1950, not only to education but to the community and taxpayers and other educational financiers. The importance of this invention as a method of teaching had to be demonstrated both to educators and to the public, and such demonstration could not get underway until after education had some assurance that it would have an opportunity to develop a share of the allocations. This assurance did not come until very late in the academic year 1951-52, which again delayed the educators. Another factor which is an important part of the development story is that about two-thirds of all educational reservations are UHF channels, the critical area on whose development commercial television is asking help.

All points being considered, there seems to be a good deal of evidence to indicate that education had peculiar problems to face in order to take advantage of the educational noncommercial reservations and that it has made significant progress which has already brought great benefit to the public.

AAUW members have been active or leading participants in governmental, citizen, faculty, and interorganizational committees, and have seen these and other factors limiting the speed with which the reservations could be turned into operating stations. To get these stations on the air, AAUW members are hard at work all over the country. A few of the States where they have been active in the last year include Washington, Louisiana, Oklahoma, Pennsylvania, Maryland, Kansas, California, Michigan, Wisconsin, Alabama, New York, Maine, Virginia, and the District of Columbia. Members have contributed time, money, study, and writing and speaking ability; they have carried on information campaigns and conducted surveys; they have supported legislation in favor of establishing educational television. On the basis of such activity it is clear that AAUW would like to see many more educational noncommercial stations in operation; it is also clear why the education committee is presently much concerned lest action taken by the FCC should cut the momentum of public appreciation, understanding, and support now gained for the use of these reservations.

When in 1950 the chairman of the education committee of AAUW testified in favor of reservations for educational noncommercial television, she mentioned the unfortunate experience education had had in getting enough time and appropriate time for educational needs from commercial radio. She also said that similarity of objectives and motivation would likely result in similar problems in commercial television. In the intervening years, AAUW members have often found this to be so. AAUW has developed television programs of good quality for all ages. One such is the Leaves and Dials project (see exhibit B; also exhibits C and D) for children which has greatly stimulated children's reading. This is the type of program which the AAUW would like to encourage but for which not enough or appropriate time is available on commercial television alone.

Members have reported also, through the Look-Listen project (see exhibit E), which covers many States and to which AAUW contributes, that the quality of commercial programs was often below standards they wished to see in their homes. This reporting is based on years of program evaluation on the basis of carefully developed criteria. The committee realizes that commercial television provides some educational programming, but it believes that because of the nature of the industry and because it must provide for the entertainment needs of the people, it is unfair or even impossible to expect commercial stations to meet all education needs. On the basis of experience, therefore, it seems clear to the com-

mittee that if the country is to get the maximum educational benefits from television it is necessary to have educational stations and to encourage them by continuing reserved channels for their creation.

The AAUW educational committee requests continuation of the reservations for another reason: the future needs of the American public for educational and cultural advancement through television. Like other parents and educators, the AAUW members realize that television has a tremendous and increasing power as a teacher. But they also are aware that television is only at the beginning of its development both technologically and in terms of its usefulness. Time is needed for the maturing of both. The committee knows, as do most Americans, that it takes sometimes more than a school or college generation of 4 years to change even a course; in this case, education is confronted with a possibility of changes which could affect the entire educational process and is criticized for not taking full advantage of it in 3 years. This does not seem reasonable to the education committee of AAUW, and, since it seems unwise to expect commercial television to carry this responsibility, the committee believes the needs of the future to be another strong reason for advocating continued reservations for educational noncommercial television.

Finally, the major barrier which the education committee sees to the development of a nationwide competitive system of television lies not in the continuation of reservations for educational television, but in developing UHF channels—a barrier which limits both educational and commercial television. It is clear that deletion of the educational channels will not solve the UHF problem and it is equally clear that it would greatly hinder the cause of public education.

The education committee wishes to summarize its comments thus: In view of the fact that progress in educational television has been substantial and because more time is needed to explore and develop educational television, the committee strongly urges that the Federal Communications Commission confirm the reservations for educational noncommercial television.

Very truly yours,

KATE HEVNER MUELLER,
Chairman, Education Committee.

Exhibits attached.¹

(Item 2 printed in pt. I at pp. 250-252; item 3 printed in pt. I at p. 260.)

ITEM 4

UNITED STATES SENATE,
February 29, 1956.

HON. WARREN G. MAGNUSON,
*Chairman, Senate Committee on Interstate and Foreign Commerce,
Washington, D. C.*

DEAR MR. CHAIRMAN: I am enclosing herewith a copy of a telegram I have received from Mr. Joseph K. Close, president of radio station WKNE, relating to the radio and television problem now being considered by your committee.

I would appreciate very much the committee's consideration of Mr. Close's telegram and to have it made a part of the printed record.

Sincerely yours,

STYLES BRIDGES.

KEENE, N. H.

Senator STYLES BRIDGES,
United States Senate, Washington, D. C.:

Will you please call to the attention of the Magnuson committee the necessity of taking prompt action to preserve UHF and small market television. As holders of a construction permit for UHF for Keene and operators of a UHF station in Kingston, N. Y., we know that unless positive and concrete steps are soon taken it is unlikely the United States will have a truly representative television service in the sense that they have a nationwide radio service. In Kingston we have borne staggering losses since June 1, 1954. We cannot carry this load indefinitely unless we see tangible evidence that the FCC is going to give UHF and small markets a real chance to survive and prosper.

JOSEPH K. CLOSE, WKNE.

¹ None of the exhibits referred to were forwarded to the committee.

UNITED STATES SENATE,
COMMITTEE ON PUBLIC WORKS,
February 28, 1956.

Senator WARREN G. MAGNUSON,
*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

DEAR SENATOR MAGNUSON: I would appreciate it if the attached communication from Mr. Joseph K. Close, of Keene, N. H., could be made a part of your hearings on UHF problems.

Mr. Close has firsthand experience in the operation of UHF television stations and I believe his views may be helpful to the committee.

With every good wish,
Yours sincerely,

NORRIS COTTON.

(Telegram same as above.)

ITEM 5
UNITED STATES SENATE,
COMMITTEE ON BANKING AND CURRENCY,
February 28, 1956.

Hon. WARREN G. MAGNUSON,
*Chairman, Interstate and Foreign Commerce Committee,
United States Senate, Washington, D. C.*

DEAR SENATOR: Enclosed are two statements from residents of Oregon to be included in the testimony on TV network regulations and UHF problems during the present hearings before your committee.

The first is from Mr. H. E. Prickett, of Wheeler, Ore., and the other from Eldon J. Letsom, of Drain, Ore.

With kindest regards,
Sincerely,

WAYNE MORSE.

STATEMENT OF H. E. PRICKETT OF WHEELER, OREG.

1. I am operating a small TV system in Wheeler, Ore., with very good success and recently started construction on a like system in Rockaway, Ore. (population 1,100). Then booster problem appeared and all construction was stopped pending information as to regulation of said device. As public subscription money builds the cable system, I feel a position of trust which is in no way safe at present.

2. Relief of point-to-point microwave restrictions would lower cable TV cost and improve coverage and still create no radiation problems.

3. What method of financing can the proposed translators or boosters depend on? I feel that free riders would eventually destroy public subscription to such support.

4. Excise tax on wired TV seems a little out of line with other low-cost proposals.

5. Translators would require alteration of nearly all sets in fringe areas such as Portland, Ore., and UHF stations are fast leaving the air.

6. I do not feel that the booster or translator is as well suited to many areas as it may be to a few such as central Washington where population is unduly scattered.

TELEGRAM DATED FEBRUARY 27, 1956, FROM ELDON J. LETSOM RADIO & TV, DRAIN, OREG.

Happy to report Scottsburg, Elkton, and Drain are receiving good TV reception from boosters. All channels received and TV sets are on low frequency. Would cost thousands of dollars to change everything to channels 70 to 83. We have no interference. These community sponsors would like permission to operate without change.

LETSOM RADIO & TV,
By ELDON J. LETSOM.

ITEM 6

STATEMENT OF J. E. O'NEILL, KJEO, FRESNO, CALIF.

Mr. Chairman and members of the committee, my name is J. E. O'Neill; my office address is Shaw and Cedar Streets, Fresno, Calif.; I am the sole owner of O'Neill Broadcasting Co., the permittee of UHF television station KJEO operating on channel 47 at Fresno, Calif.

I am pleased to have been given this opportunity to express my views on two matters which you have under consideration which I believe will have an important effect on the television broadcast service. The first is the deintermixture problem and the second subscription television.

Fresno, up to January 12 of this year, was an all-UHF community and had been so since the inception of telecasting in Fresno more than 2 years ago. On January 12, the Federal Communications Commission granted a VHF permit in Fresno. O'Neill Broadcasting Co. has, as have many other UHF stations similarly situated, sought to have the Commission stay the VHF grants until there could be a determination by the Commission in the general television allocations proceeding.

Although the Commission had earlier, at congressional hearings similar to this, expressed a policy that such grants would be held up, the Commission departed from this policy commencing in November of last year. O'Neill Broadcasting Co. has sought review of these actions by the appellate court and the case is now pending before the court. In similar cases, however, the court has indicated that such matters are the responsibility of the Commission. In a recent case before the court in one of the deintermixture appeals, the court said, "If extinction of UHF stations results from the Commission's policies and actions, the responsibility must lie at the Commission's door."

Despite the fact that Fresno presents an ideal situation for deintermixture, and in face of pending rulemaking proceedings before the Commission designed to consider the reallocation of television channels to provide, among other things, for the possible deintermixture of UHF and VHF, the Commission has, by its action, placed itself beyond the power to provide a deintermixed community. This is for the reason that irreparable damage will accrue in the interval to both the UHF stations and to the public. Any relief that the Commission may deem appropriate is apt to come far too late to be of any value.

I wish to present the following as a picture of the Fresno television community.

Station KJEO has been in actual operation on channel 47 for more than 2 years. Another station, KMJ-TV, operates on UHF channel 24 at Fresno; that station has also been in operation for more than 2 years. In addition, a construction permit on UHF channel 53 at Fresno is outstanding. That station was constructed and was in operation for a brief period, but is now off the air, having encountered economic difficulties.

The nearest community with an operating television station is Tulare, Calif., approximately 45 miles from Fresno. The station there (KVVG) operates on UHF channel 27. The nearest community with either an assigned or operating VHF station is Bakersfield, Calif., 103 miles airline distant from Fresno, where KERO-TV operates on VHF channel 10. Bakersfield has also assigned to it a UHF channel (29) upon which KBAK-TV operates.

Fresno is therefore presently an all UHF community with the 2 operating and 1 nonoperating UHF stations. Only one VHF channel, 12, is assigned to Fresno. An educational station reservation is held on channel 18 but no application has been made for it.

There is no VHF service in Fresno from either local or outside stations, and there will be no commercial VHF service if channel 12 is reassigned.

Fresno received its first television service as a UHF service and there is, consequently, no problem of conversion.

There are at present approximately 175,000 UHF receivers, which are predominantly all channel UHF-VHF receivers as distinguished from converted VHF sets.

Station KJEO transmits from a site approximately 4,300 feet above the level of the community it serves with an effective radiated power of 427 kilowatts.

All of the Fresno trading and market area, including all of the Fresno metropolitan area and considerable additional territory, receives excellent technical service. The signal of KJEO is satisfactorily received at distances of more than 90 miles from Fresno.

There will be no "white" areas in the service at Fresno for the reason that any VHF coverage which might be greater than that of UHF will be in either rugged, sparsely populated, mountainous areas or in areas of population which receive better service from other stations more closely located to them. All of such excess coverage from the VIII station would be in other market and trading areas with their own television stations.

All of the television networks are served by the two UHF stations in Fresno and said stations are operating on a successful commercial basis, but that position has been achieved only after periods of substantial loss in building a UHF community.

Both of the existing stations in Fresno, KJEO and KMJ, operate on full schedules from approximately 6:30 a. m. to midnight, and between them bring to the Fresno area substantially all of the available network programs in addition to a well-balanced schedule of programs of local interest. In addition, KJEO has been devoting approximately 8 hours per week in originating its own local, live, color programs.

O'Neill Broadcasting Co. has a capital investment in its UHF station to date of \$615,000. Its accumulated deficit to June 30, 1955, was \$335,000.

The grantee of channel 12 would not be harmed or prejudiced by the substitution of channel 18, the most desirable UHF channel in Fresno, or some other UHF channel, and would receive the full benefits of the efforts and expenditures of the existing UHF stations in creating and building a substantial all-UHF audience.

The assignment of channel 12 for educational television would effect a substantial saving in construction and operating costs for the educational broadcasters without any loss in service, and would thus make possible the establishment and maintenance at much lower cost of the non-revenue-producing educational television station than would otherwise be the case.

The assignment of channel 12 to Bakersfield, Calif., would permit both operating stations there to operate on VIII channels and will convert that community to an all-VHF city, thus creating deintermixture in that city.

Station KJEO commenced operation as an ABC network affiliate. It now is also affiliated with the CBS television network. The station's affiliation agreement, however, with the CBS television network is subject to 90-day cancellation.

The grantee in the VHF channel 12 proceedings, California Inland Broadcasting Co., has had, by reason of a historical radio affiliation with CBS, a long-standing commitment for television affiliation in the event it should be the successful applicant on VHF channel 12. California Inland has announced that this commitment has been renewed within the past year, and that the nature of the commitment was such that CBS television network is bound to affiliate with it.

As a consequence of the above reported contractual commitments, KJEO is in immediate danger of losing its CBS affiliation agreement now that the grant of VHF channel 12 to said applicant has been made. With the network will go the national advertisers, for the reasons set forth below.

A situation exists in connection with the placement of advertising business whereby VHF stations are selected over UHF stations. This situation exists not on the basis of any real difference between the services of the stations but on an artificial concept of the values of VHF versus UHF, and has become a custom of time buyers and a tradition of the trade. The present attitude and policy of national and regional buyers of spot advertising upon which KJEO relies for a substantial portion of its revenue is to place their advertising upon a VHF station when that station commences operation in a community. Such advertisers are anxious to place their spot advertising adjacent to the programs of one of the major networks on a VHF station. Thus, a VHF station with a major network, competing with a UHF station, attracts most of such business and becomes the dominant station upon which the bulk of all advertisers seek availabilities.

Under such circumstances, the inception of operation of a VHF station with one of the major networks can result in such a severe loss of revenue to the UHF station that KJEO may be forced to curtail operations. This has been the history of many similarly situated UHF stations when a VHF commences operations in the same community. KJEO can compete with additional UHF stations in the area, with or without network affiliations, but operation of a VHF station, under the circumstances of the present very real, although unjustified, policy of placement of advertising business, constitutes unfair competition to UHF stations in the community; such unfair competition ultimately

destroys and terminates UHF television service in the community, to the detriment of the public interest, and this has been the actual case of a number of UHF stations in recent months. While I may have a self-interest in attempting to preserve my UHF station, this interest parallels the public interest, for if the UHF stations must terminate operations in Fresno, the public will be left with 1 VHF station with no choice of programs as against the likelihood of 3 UHF stations, each serving a different network. With the disappearance of the UHF stations the aggregate public investment in the more expensive all-channel receivers will be lost. This investment was made in reliance that the interest of the public in UHF receivers would be safeguarded by the surveillance and protection of the agency of the United States Government charged with jurisdiction over communication matters.

The Commission has knowledge of these problems. This appears not only from the original proposed notice of rulemaking and from the questions designated therein as pertinent in the first deintermixture matter designated for formal rulemaking proceedings, but also from the voluminous data and comments filed in the docketed proceedings and from the oral argument. Furthermore, the Commission has had before it the some 30 petitions seeking reallocation relief and has studied the question in connection with congressional inquiries and statements. In the latest notice of proposed rulemaking in docket No. 11532, the Commission refers to these problems as the familiar difficulties presently facing television broadcasters.

I believe that the prime requirement of a nationwide allocation plan is the establishment of facilities in as many communities as possible on equal competitive footing. This is the backbone of the establishment and continuation of a nationwide competitive system with multiple television services and multiple program choice to the public. There is a great difference between allocation of channels and the allocation of competitive channels to the communities. It has been amply demonstrated that lack of equal or competitive facilities in a market leads to the curtailment of service and the denial of free choice in selection of program, and tends to a monopolistic situation.

The principle of a nationwide competitive television system, therefore, finds its roots in competitive facilities in each individual area. Experience has now amply shown that where UHF and VHF stations are intermixed in a community, the UHF is at a severe competitive disadvantage and the intermixed allocations create an ultimate diminution of service. In some cases this disadvantage may perhaps arise for technical reasons, but in the vast majority of cases it appears that this disadvantage lies only in psychological concepts, quite real in impact. In numerous communities, UHF, for all practical purposes, will equal and in many respects be superior to VHF, yet the attitude of the advertiser creates a barrier with which the Commission is now familiar and places the UHF station at an artificial but practical competitive disadvantage.

Where UHF can supply completely satisfactory service, the answer is obvious, and that is the establishment of a truly competitive television area on an equal basis by making all outlets UHF; that stations in an all UHF community can operate satisfactorily from the standpoint of both the viewer and the station operator is demonstrated by the current situation in Fresno and by other successful UHF communities. This type of deintermixture not only places the community on a sound basis for competitive television services, but releases VHF channels for use in other areas where the circumstances require that deintermixture be achieved by creating all VHF areas—again, to achieve the same end of equal competitive facilities.

The UHF stations which stand in a position of being obliterated by VHF grants have exhausted their remedies before the Federal Communications Commission. They are now before the courts, but the courts have indicated that such matters are the responsibility of the Commission. It appears that the proper course in order to save the UHF television service and, consequently, a nationwide competitive television service, is some appropriate action by this committee or by the Congress.

With reference to the matter of subscription television, KJEO supports and endorses the position of the Columbia Broadcasting System and believes that neither the public interest nor the interest of television stations would be served by the establishment at this time of a subscription television service.

I believe I would be unnecessarily imposing on the time of the committee if I were to repeat at length the reasons which have been so excellently presented by the Columbia Broadcasting System and I therefore refer to the statement of CBS for material in support of this view.

Thank you for this courtesy and for your interest.

Respectfully submitted.

J. E. O'NEILL¹

ITEM 7

STATEMENT OF THOMAS E. HOWARD, VICE PRESIDENT, JEFFERSON STANDARD BROADCASTING CO.

I. INTRODUCTORY

My name is Thomas E. Howard and I am vice president and managing director of the engineering and general services divisions of the Jefferson Standard Broadcasting Co. This statement is submitted in connection with the hearings which commenced on January 26, 1956, concerning the Federal Communications Commission and television developments. It is respectfully requested that this statement be made a part of the hearing record.

II. JEFFERSON STANDARD BROADCASTING CO.

Our company is the owner and operator of television station WBTV, which operates on channel 3 at Charlotte, N. C., with authorized maximum effective radiated power of 100 kilowatts and an antenna height of 1,090 feet above average terrain. Jefferson Standard Broadcasting Co. is also the owner and operator of television station WBTW, which operates on channel 8 at Florence, S. C., with authorized maximum effective radiated power of 316 kilowatts and an antenna height of 790 feet above average terrain.

Jefferson Standard Broadcasting Co. is wholly owned by the Jefferson Standard Life Insurance Co., which owns 16.59 percent of the Greensboro News Co., which owns 100 percent of the licensee of television station WFMY-TV, which operates on channel 2 at Greensboro, N. C., with maximum effective radiated power of 100 kilowatts and an antenna height of 720 feet above average terrain.

In addition to serving the communities of Charlotte and Florence, WBTV and WBTW provide satisfactory television service to wide areas surrounding the cities. As an operator of television stations, our company is vitally interested in the current committee hearings.

III. EXPERIENCE AND PRESENT DUTIES

I first became associated with the broadcasting industry in 1925 as an engineer and since that time have been continuously engaged in engineering activities associated with broadcasting and communications. The highlights of my activities include the design and installation of the transmitting equipment of the St. Louis Metropolitan Police Department; installation of KSD-TV, St. Louis, which commenced operation in February of 1947 as the Nation's first postwar commercial television station; the design and installation of television station WPIX, New York; supervision of all phases of WPIX's participation in the Empire State Building multiple-antenna project; and the design and installation of television station WBTW, Florence, S. C.

My military service was in the field of communications, both at home and abroad. I entered the service as a first lieutenant and was separated with rank of colonel.

In October of 1953 I became a director of engineering for radio and television of Jefferson Standard Broadcasting Co., and in 1955 I was elected a vice president.

IV. TELEVISION ALLOCATIONS

A. Sixth report and order

As set forth in section 1 of the Communications Act of 1934, the primary duty of the Federal Communications Commission is to regulate "interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States a rapid, efficient, nationwide, and worldwide wire and radio communication service * * * ." [Emphasis added.]

¹ See p. 633 for a further statement by Mr. O'Neill. See p. 679 for a controverting statement by Paul R. Bartlett, California Inland Broadcasting Co., Fresno, Calif.

The act directs the Commission to allocate broadcasting frequencies "among the several States and communities as to provide a fair, efficient, and equitable distribution of radio *service* to each of the same." (Sec. 307 (b), emphasis added.) The act expressly states that persons engaged in broadcasting shall not be deemed to be common carriers (sec. 3 (h)).

In accordance with the above-noted statutory provisions, the Commission, in its sixth report and order released April 14, 1952, promulgated a national television allocation plan. A résumé of the history of television demonstrates that this plan was the result of intensive and comprehensive studies and hearings.

The first application for a commercial television station was filed in 1939. This application led to hearings commencing in 1940, which resulted in the authorization of commercial television under date of April 30, 1941. By May of 1942, 10 commercial television stations were in operation, but World War II halted further expansion.

In 1945 the Commission allocated 13 VHF channels to commercial television broadcasting.¹ At that time, the Commission made clear its opinion that there was insufficient VHF frequency space to provide for an adequate nationwide television broadcasting system.

The Commission imposed the freeze in September of 1948 primarily because of the fact that operating experience indicated that the operation of stations at the then permissible mileage separations was creating unanticipated interference problems.

Shortly after the institution of the freeze, the Commission appointed an ad hoc committee composed of industry and Government experts for the purpose of assisting the Commission in compiling and analyzing propagation information and other matters concerned with an allocation plan. Some of the members of the above-mentioned ad hoc committee (Messrs. Harmon, Lodge, and Wakeman) are now serving on the ad hoc committee recently appointed by this committee.

In July of 1949 the Commission issued a notice of proposed rulemaking setting forth its proposals for a national television assignment plan. Based on a study of the comments received in response to its notice and the evidence received in a hearing held between October of 1950 and January of 1951, the Commission issued its third notice of further proposed rulemaking in March of 1951. After reviewing written and oral responses to the third notice, and upon consideration of the entire record, the Commission issued its sixth² report and order in April of 1952 and commenced processing applications for new television stations in July of 1952.

Although notable achievements have been realized in the short period of time since the sixth report and order was released, certain elements in the industry are urging that basic changes in the allocation plan are necessary. Our view is that the basic features of the allocation plan promulgated by the sixth report and order are sound and should be maintained.

B. Accomplishments of statutory objectives under the sixth report and order

Although the allocation plan promulgated in the sixth report and order has been in effect for less than 4 years, tremendous strides have been taken toward accomplishing the statutory objectives of providing service to all the people of the United States and distributing television service fairly, efficiently, and equitably among the several States and communities. In July of 1952 there were only 108 television stations on the air in 63 communities. Today there are some 440 stations in operation in 278 communities. In July of 1952 there were only 23 markets with 2 or more local stations. Today there are 113 markets with 2 or more stations. As the Chairman of the Commission stated before this committee on January 26, 1956, it has been estimated that over 90 percent of the people now receive service from at least 1 television station and perhaps as much as 75 percent of the people receive service from 2 or more stations. As the Chairman of the Commission stated, research estimates place the total number of television receivers in the hands of the public at some 37 million sets at an investment cost of more than \$15 billion, and "the annual volume in television advertising, set sales, and servicing, runs close to \$3 billion a year" (January 26, 1956, statement to this committee).

The tremendous growth of the television industry indicated by these statistics attests to the basic soundness of the current television allocation plan. It is submitted that television as a service to the public will continue to grow and

¹ In 1948, one of the 13 VHF channels was assigned to nonbroadcast services.

² The remaining reports issued by the Commission during the proceeding were of such a nature as to require no discussion at the present time.

prosper under this plan, which to date has not been fully tried or tested. For the reasons set forth below, it is believed that the various proposals to alter the basic television allocation plan are without merit and that any major alterations will result in deterioration rather than improvement of television service to the people of the United States.

C. Reduced separations, etc.

Our company objects to and opposes any revision of the current television plan which would result in an abridgment of the service areas of existing stations, or encroach upon the future service potential of stations utilizing high power and antennas to provide effective service to outlying rural areas. A number of the proposals submitted to this committee and to the Commission in connection with its current television allocation proceeding (docket 11532), would have this undesirable effect. These include various plans for the assignment of additional television channels by reducing the present minimum co-channel and adjacent channel separation requirements; the use of directional antennas or other restrictive devices; reduced maximum operating powers; and a number of other proposals, most of which were considered and rejected by the Commission 4 years ago in its sixth report and order. The sixth report considered and properly rejected, among other proposals, reduced mileage separation (pars. 109, 111-113, 115, 126), reductions in power (pars. 136 to 140), and the use of directional antennas (par. 220).

The wide area coverage which may be effectively obtained through resourceful use of television frequencies is a fundamental and salutary concept of the present national television allocation table, of which the first and most important objective is to provide at least one television service to all parts of the United States. Until there are no longer any television "white areas" (i. e., areas without at least one adequate television signal) in the country, this objective should be the paramount and overriding goal of the Commission's television allocation provisions. In the 3½ years since the promulgation of the sixth report and order, substantial progress has been made in realizing this primary objective. However, based on the Commission's estimate of present coverage, it appears that some 16 million people in this country are still without adequate television service from 1 station. Undoubtedly, a significant portion of the 16 million people residing in the television desert are located in rural and small-town America. It is an engineering and economic fact that wide area coverage by stations located in urban centers is necessary to bring service to many of these people whose needs for the cultural, educational, and entertainment benefits of television exceed the needs of city dwellers. Television service to these areas should be improved rather than degraded, as has been suggested by a number of witnesses who have appeared before you.

According to a recent survey of television farm penetration undertaken by the United States Bureau of Census, approximately 1,700,000 of the Nation's 4,782,000 farms had television sets in operation during October and November 1954. Although this figure represents only slightly more than a third of the entire rural farm market, the investment in television by farmers it reflects is substantial, and amounts in the aggregate to approximately \$500 million, assuming an average retail price per television set of \$250,³ and taking into account the well-known fact that television installation costs are considerably higher on farms than in cities because of the special tower and antenna structures required to pick up satisfactory signals from stations in distant cities. Naturally, this entire sum is not at stake, since many farmers live close enough to metropolitan areas to receive adequate service. However, it is of the utmost importance that the immense investment by the rural populace, many of whom even today receive in return only one television signal, of doubtful quality, be recognized and protected by the Commission in any future action it may take looking toward revision of its present television allocation standards. No restriction should be placed on the future efforts of television licensees to provide, through improvement of their facilities, more and better television service to outlying rural regions on the fringe of their service areas. Likewise, no action should be taken which would in any way encroach upon the rural service which has been established to date.

³ This figure is a conservative estimate, based on data reported in the trade press. For instance, *Television Digest* for January 29, 1955 (p. 9), estimated that the average retail price of the 33½ million sets in use on January 1, 1955, was \$270. The same publication on November 19, 1955 (p. 1), contained an estimate, based on figures supplied by the statistical department of Radio-Electronics-Television Manufacturers Association, that a total of 7,900,000 new sets would be sold during 1955 for approximately \$1.95 billion, or an average retail price of about \$247.

D. Status of UHF

It is recognized that the highly publicized plight of the UHF broadcasters is the basic reason for the current review of television allocations by the Commission and this committee. It is claimed that the present plan does not permit competitive coexistence of UHF and VHF operations. It is stressed that although 152 UHF stations commenced operating since the lifting of the freeze in July of 1952, only some 97 commercial stations were on the air in January of 1956 and that a number of the UHF stations presently on the air are operating at a loss.

To some extent the difficulties of UHF have been the result of economic pressures inherent in any competitive industry and which are not within the control of the Commission. It is submitted, however, that these difficulties are not necessarily of a permanent character and that one cannot write off as impractical the objectives embodied in the sixth report and order, or assume that stations in the UHF band are inherently incapable of competing on a successful basis, under present television allocation plans, with stations in the VHF part of the spectrum.

It should be remembered that UHF television operators are at this date going through an initial stage of growth and expansion similar to that which faced the pioneers in VHF television service during the years prior to and during the freeze. Indeed, UHF difficulties during the years since the lifting of the freeze have been in many respects comparable to those faced by the VHF pioneers in the prefreeze period. The basic problem, then as now, was receiver distribution. An examination of the Commission's financial reports for VHF television stations during the years 1948, 1949, and 1950 in comparison with similar information for the UHF television industry for the years 1953 and 1954 shows that a smaller number of VHF stations sustained much larger operating losses during the initial period when set distribution was being built up than UHF stations have sustained during the corresponding postfreeze period of set conversion.

In 1948 the 50 television stations in operation, including those owned and operated by the networks, had aggregate revenues of \$8.7 million, aggregate expenses of \$23.6 million, and operating losses of \$14.9 million. During this year not one television station had an overall profitable operation. During 1949, by which time 98 television stations were on the air, aggregate revenues were \$34.3 million, expenses were \$59.6 million, and operating losses had grown to \$25.3 million. During this year only four television stations operated at a profit. In 1950, more than a year after the freeze had gone into effect, the television industry, with 107 television stations on the air, reported revenues of \$105.9 million, expenses of \$115.1 million, and overall operating losses of \$9.2 million. During that year only half of the stations in operation showed operating profits. Thus in an initial period of 3 years scarcely more than a hundred VHF television pioneers sustained total losses of some \$49 million during the period when receiver distribution throughout the country was being built up.

In contrast to the massive operating losses suffered by the relatively few prefreeze television stations during the period when set circulation throughout the country was being built up, the average losses suffered by UHF stations authorized since the sixth report and order have been relatively small, despite the intervening depreciation of dollar values. Thus, according to the Commission's summary of financial conditions during 1953, the first full year of postfreeze operation, a total of 112 UHF stations in operation had total revenues of \$10.4 million, expenses of \$16.7 million, and operating losses of \$6.3 million. For the following year, 1954, a total of 125 UHF stations in operation had revenues of \$25.4 million, expenses of \$35.4 million, and total operating losses of \$10 million. For the first 10 months of 1954, 18 of the UHF stations in operation had an overall profit. Although comparable figures for the year 1955 are not yet available, it is apparent that during the first 2 years after the freeze the UHF television industry, faced with the same set distribution problem as that which originally confronted VHF operators in 1948 and 1949, has suffered nothing like the overall operating losses experienced by the VHF pioneers and that, in addition, the UHF loss has been distributed over a greater number of operators. Whereas less than 100 operating VHF stations sustained total losses of more than \$40 million in the calendar years 1948 and 1949, the total operating losses of a larger number of UHF stations during the year 1953 and 1954 amounted to only slightly more than \$16 million, or approximately one-third of those sustained in the early days of the VHF service.

The foregoing comparative financial data for UHF and VHF are set forth in a chart attached hereto as exhibit A.

The operating losses suffered by UHF television stations may reasonably be expected to decrease with the gradual process of conversion throughout the country.

In the proceedings leading to the sixth report, the Commission specifically recognized that:

"It is reasonable to assume that economic problems will be faced by UHF broadcasters in areas where VHF broadcasting exists. Similar problems confronted the VHF broadcasters prior to increased receiver distribution in their respective areas." (Sixth report and order, par. 189.)

Because experience since the lifting of the freeze has borne out the above prediction is no reason for abandoning at this early stage the principles of the current allocation plan which was adopted by the Commission, after exhaustive consideration, in a rulemaking proceeding extending over several years.

It is submitted that no serious attempt has been made by most UHF broadcasters to become competitive with VHF broadcasters by utilizing the facilities available to them under the current television allocation plan. The current allocation plan provides that stations in the lower VHF band (channels 2 to 6) may operate with maximum power of 100 kilowatts e. r. p.;⁴ that stations in the upper VHF band (channels 7 to 13) may operate with maximum power of 316 kilowatts e. r. p. and that stations in the UHF band (channels 14 to 83) may operate with a maximum power of 1,000 kilowatts e. r. p. Of the 97 UHF stations on the air in January of 1956 only 4 of these stations were using maximum power and 90 were using less than 30 percent of the maximum authorized power with 30 of these 90 operating with 2 percent or less of maximum authorized power.

On the other hand, of the 341 commercial VHF stations, 217 were operating with maximum authorized power. Only 5 of the VHF stations were operating with 2 percent or less of the maximum authorized power. These facts are depicted graphically on the chart attached hereto as exhibit B.

It is submitted that any station, UHF or VHF, which chooses to utilize only 1 percent or 2 percent of available maximum power can hardly be expected to compete successfully with stations utilizing 100 percent of available maximum power.

We maintain that the real crux of the so-called UHF problem is the UHF broadcasters' failure to utilize fully and effectively the facilities offered to them by the Commission and that this fact is mainly responsible for the difficulties experienced in securing set conversions and network affiliations.

The question naturally arises as to whether it would be economically feasible for UHF stations to install the equipment necessary to achieve maximum power. It is submitted that the cost figures set forth below demonstrate that UHF stations can be as competitive with respect to VHF stations as upper band VHF stations are with respect to low-band VHF stations.

The usual antenna-transmitter combination used to achieve 100 kilowatts e. r. p. for channels 2 to 6 is a 25-kilowatt transmitter and an antenna with a gain in the order of 5.9 to 6.5. The usual combination used to achieve 316 kilowatts e. r. p. for channels 7 to 13 is a 50-kilowatt transmitter and an antenna with a gain in the order of 10 to 12. A combination which will achieve 1,000 kilowatts e. r. p. for channels 14 to 83 is a 25-kilowatt transmitter and an antenna with a gain of between 46 to 60, depending on the channel employed.

The cost to broadcasters for the above combinations is as follows:⁵

Channel and ERP	Transmitter	Antenna	Total
Channels 2 to 6, 100-kilowatt ERP	\$145,500	\$30,750	\$176,250
Channels 7 to 13, 316-kilowatt ERP	212,000	38,500	250,500
Channels 14 to 83, 1,000-kilowatt ERP	186,000	49,500	235,500

Thus, from a capital investment viewpoint, the combination necessary to achieve 1,000 kilowatts e. r. p. on UHF channels is cheaper than that used to achieve 316 kilowatts e. r. p. on upper band VHF channels.

With respect to operating costs, the major items are power consumption and tube replacement. From a standpoint of power consumption it is cheaper to operate the 25-kilowatt UHF transmitter (108-kilowatt power consumption) than

⁴ E. r. p. is an abbreviation for effective radiated power, which is a combination of transmitter power output, less transmission line losses, multiplied by antenna gain.

⁵ Based on RCA catalog prices.

it is to operate the 50-kilowatt UHF transmitter (140-kilowatt power consumption). The cost of complete sets of replacement tubes for each of the transmitters mentioned above is listed below, based on RCA catalog prices:

Channels 2 to 6.....	\$5,505.22
Channels 7 to 13.....	13,123.85
Channels 14 to 83.....	13,100.00

In view of the fact that it is reasonable to assume that tube life for UHF 25-kilowatt transmitters will be substantially the same as the tube life of upper band VHF 50-kilowatt transmitters, there appears to be no significant difference in tube replacement cost as between UHF and upper band VHF stations.

The above statistics indicate that there is no reason why UHF stations cannot make the capital and operating expenditures necessary to achieve maximum power and to become competitive with VHF stations in terms of service and coverage. In this connection, it is recognized that in areas of unusually rugged terrain there will be more "white areas" within the normal service areas of UHF stations than within the normal service areas of VHF stations. However, in most cases these areas can be served through the use of low-cost boosters or translators and there is nothing to indicate that a UHF station operating with maximum power of 1,000 kilowatts e. r. p. with adequate antenna height will not be able to cover effectively its market area and thus be competitive with VHF stations. In addition, the Commission has recently issued a proposal to amend its rules so as to authorize maximum power of 5,000 kilowatts e. r. p. for UHF stations. One UHF station (WJMR-TV, New Orleans) now operating with the presently authorized maximum of 1,000 kilowatts e. r. p. has applied for and received permission for experimental operation using 5,000 kilowatts e. r. p. This experienced UHF broadcaster (2½ years on the air) is evidently satisfied that UHF is practical, that it is here to stay, and he is taking positive steps to become and to remain competitive. Unfortunately, such a realistic approach to the problems of becoming an effective part of the industry is the exception rather than the rule among UHF broadcasters.

An effective radiated power of 5,000 kilowatts can be reached by employing a transmitter capable of 100-kilowatt output together with the currently available high power, high gain UHF antennas. RCA recently announced successful on-the-air tests on a new type of UHF amplifier tube which produced an effective radiated power of approximately 4,500 kilowatts during these tests. The RCA announcement stated that this power is more than four times the output of the most powerful existing UHF station and that:

"This test of tube and antenna establishes the engineering validity of ultra-high-power, ultra-high-frequency broadcasting. Radiated power in the order of 4 million to 5 million watts would enable UHF TV stations, so equipped, to extend the area of primary coverage and offer improved television service throughout the present so-called fringe or weak-signal areas" (Broadcasting-Teletesting, Feb. 20, 1956, p. 102).

In view of the above, there is every reason to believe that UHF can be competitive with VHF and that no basic changes in the present television allocation plan should be made at this time.

V. CONCLUSION

In reference to the sixth report and order, we believe that there is not too much wrong with a plan (as yet not fully implemented or tested) which today allows more than 440 stations to provide television programs to more than 37 million receivers serving some 90 percent of the population of the United States. No one has quarreled seriously with the proposition inherent in the sixth report and order that UHF as well as VHF channels are needed in order to realize the statutory objectives of providing television service to all the people and distributing such service among the several States and communities in a fair, efficient, and equitable manner. We believe it is apparent that these objectives are being accomplished under the current allocation plan and that no basic changes should be made in the plan. The present allocation plan should be implemented rather than changed, and UHF stations should be urged to achieve the maximum operating powers and antenna heights currently authorized in order to provide their share of the service contemplated under the sixth report and order.

We believe that the current unsavory reputation of UHF television is, in the main, a result of inadequate use of these facilities rather than the result of inherent deficiencies in the virtually untried UHF system itself. Up until the

present time we have been prone to compare only the front side of the tags on the various stations. The front side of these tags read "UHF station" or "VHF station." This is a misleading comparison. We have not looked at the reverse side of these tags which all too often read "1 percent UHF station" and "100 percent VHF station." Many of us have been led to believe that the cost of purchasing and operating equipment necessary to achieve maximum powered UHF is prohibitive and places the UHF operator at a great financial disadvantage. This is not so. It costs no more to purchase and operate equipment for UHF 1,000 kilowatt effective radiated power than it does to purchase and operate equipment for VHF 316 kilowatts effective radiated power. We are told of the enormous and unbearable losses of many of the UHF stations without being told that it is written in the history of the industry that it is normal for stations (UHF or VHF) to suffer operational losses in the early stages of operation.

In our own case we found this to be true in the early years of WBTW and we are finding it true today. Our VHF station WBTW in Florence, S. C., has been on the air 1½ years and is still operating at a loss. It should be remembered that some VHF broadcasters suffered heavy losses for periods longer than 5 years before they enjoyed the privilege of buying their first bottle of black ink.

All television stations now operate within the provisions of the sixth report and order. However, as is evidenced by many of the proposals that have been submitted, some UHF broadcasters are demanding a new set of standards based solely on their reluctance to invest the amount of money in equipment necessary to participate effectively in the industry. In doing so, they completely disregard the effects such a plan would have on the efforts to develop a truly nationwide service and disregard the interests of the public residing in rural and small-town areas. The standards proposed call for a patchwork of low cost, minimum service, and interference-ridden operations to the detriment of the American public. For example, the proposal to limit the coverage area of each television station to one community would practically eliminate television service to rural and small-town America.

Shall we close our eyes to the big picture and adopt a new plan that will hamstring a great and growing service and industry in order to allow a few broadcasters who choose to be noncompetitive to stay in this business a little longer, or shall we maintain a plan that is adding proof of its effectiveness every day in providing service to all of the people?

We believe that full and aggressive use of the facilities available to UHF broadcasters will result in elimination of many of the current difficulties of UHF stations in securing set conversions and program material. Such action would provide UHF stations with the circulation necessary to effective competition. In addition, this action would serve to create confidence in UHF and its future. The emphasis, by action and by word, should be placed on the positive rather than the negative.

In the final analysis, the Federal Communications Commission under existing law and congressional directives has the responsibility for allocating television channels. This is a problem of tremendous scope and complexity. Our view is that the Commission has faithfully carried out its responsibility in providing the present allocation plan and that this plan, if given the necessary time, implementation, and industry cooperation, will lead to truly nationwide competitive television service for the people of the United States.

Respectfully submitted.

THOMAS E. HOWARD,

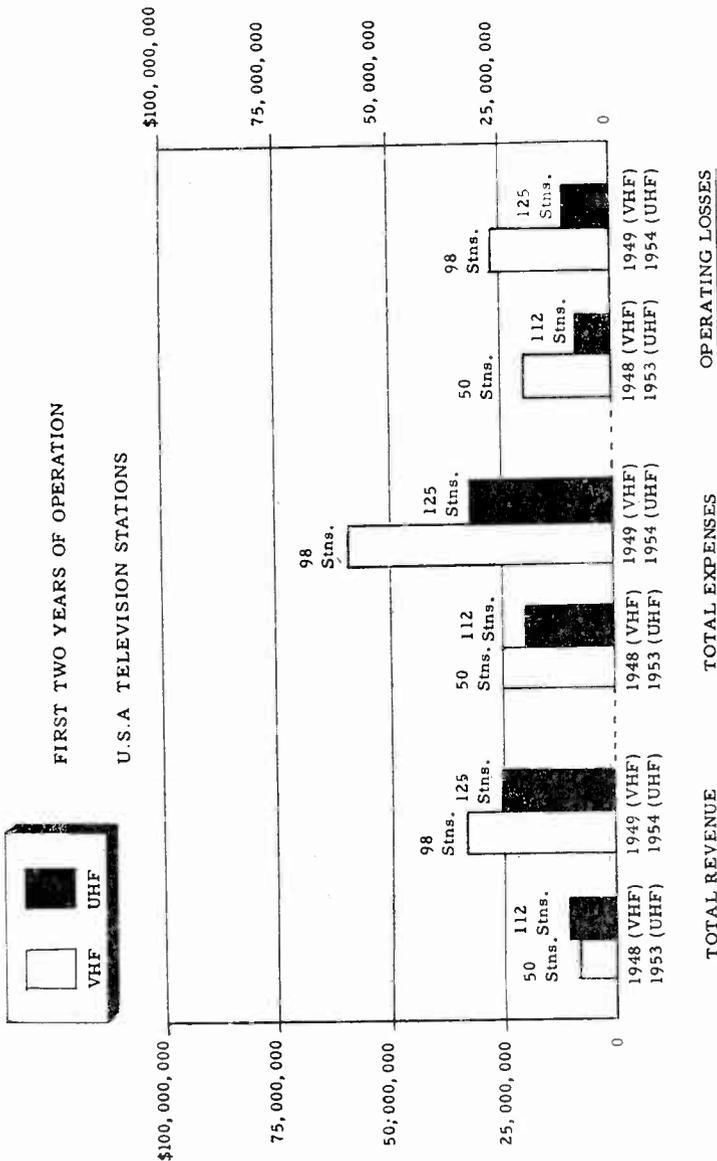
Vice President and Managing Director of the Engineering and General Services Divisions of Jefferson Standard Broadcasting Co.

FEBRUARY 29, 1956.

(The exhibits referred to in Mr. Howard's statement are as follows:)

EXHIBIT A
Data from
FCC files

Revenue - Expenses - Operating Losses

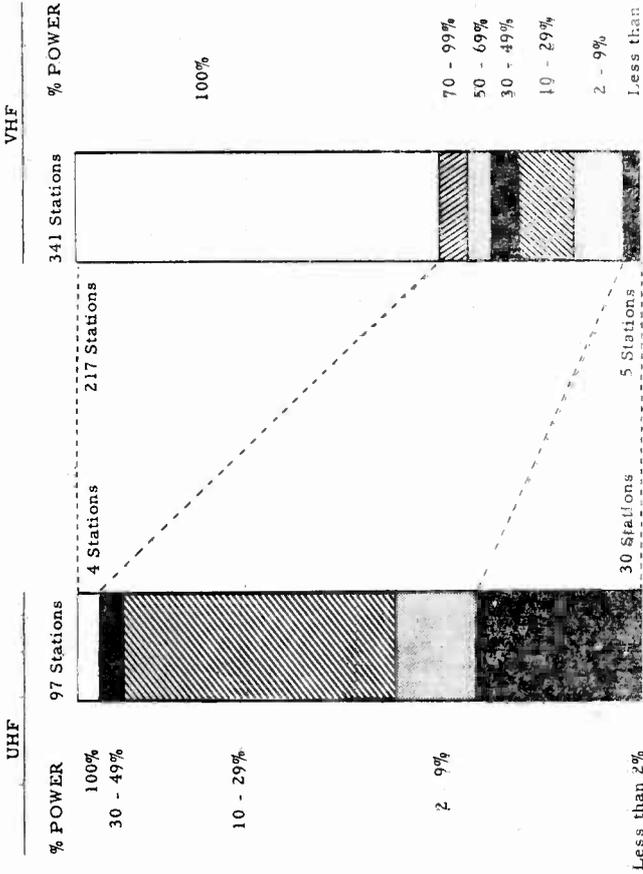


Prepared by Jefferson Standard Broadcasting Company

EXHIBIT B

U. S. A. Television Stations

Showing % of Authorized Power Now Used *



* Prepared by Jefferson Standard Broadcasting Company

* January 1956, TV Factbook

Senator BIBLE. Pardon my interruption, Mr. Chamberlain. You may proceed. Will you identify yourself for the record? And may we have quiet in the room?

**STATEMENT OF PAUL L. CHAMBERLAIN, GENERAL MANAGER,
BROADCAST EQUIPMENT, TECHNICAL PRODUCTS DEPARTMENT,
ELECTRONICS DIVISION, GENERAL ELECTRIC CO.**

Mr. CHAMBERLAIN. Thank you, Senator.

My name is Paul L. Chamberlain. I am general manager for broadcast equipment, electronics division, General Electric Co., in Syracuse, N. Y.

I am appearing here today as a representative of a television-equipment manufacturer. My testimony will be concerning UHF broadcasting and receiving equipment and technical problems which have a bearing on UHF broadcasting. For the information of the committee members, the General Electric Co. is one of the pioneers in the television field. We manufacture both UHF and VHF television-broadcast transmitters and studio equipment, television receivers, picture tubes, and receiving tubes. The company conducts an extensive research program in the entire area of communications through the facilities of the General Electric research laboratory in Schenectady, N. Y., and the electronics laboratory in Syracuse, N. Y. The scientists of these laboratories and our extensive engineering organization have been making important basic contributions to the television art in a number of areas, not the least of which is the ultra-high-frequency area.

In my appearance before the Communications Subcommittee on May 20, 1954, I outlined in some detail the technical contribution of the General Electric Co. in developing and producing VHF and UHF broadcast equipment. At that time I was accompanied by two associates who similarly outlined the company's contributions with respect to VHF and UHF receivers and tubes. I would hesitate to take the committee's time to review this record other than to emphasize again that our company delivered the first 12-kilowatt UHF transmitters less than 6 months after the first construction permit was issued by the Commission. At the time I testified we had delivered 44 UHF transmitters, of which 34 were 12-kilowatt transmitters; and we had equipped 100 percent of all stations operating with more than 5 kilowatts of transmitter power and more than 90 percent of all stations over 1 kilowatt.

At that time I predicted delivery of a 60-kilowatt UHF transmitter by the spring or summer of 1956. Despite the fact that economic problems of the UHF broadcasters necessarily affected the incentive to press these developments, the ingenuity of our engineers had enabled us to meet and exceed the predicted effective radiated power. For example, we have had in operation since January 1955 a transmitter/amplifier and antenna operating at WILK, Wilkes-Barre, Pa., producing 1,000 kilowatts of effective radiated power; and we have produced equipment for WGBI, Scranton, Pa., capable of effective radiated power of 2,000 kilowatts. This equipment is currently being installed.

I review these facts as a foundation for the statement that the broadcast equipment industry in general, and General Electric in par-

ticular, has utilized every available bit of engineering and research talent to provide successful high-power UHF broadcasting equipment to the broadcast stations, and that, although this effort has been made infinitely more difficult by the economic problems of the industry, nevertheless resourcefulness and ingenuity have been brought to bear to make a substantial technical contribution.

In the company's receiver story, told by Dr. Fink in 1954, the noise factor for UHF receivers was outlined. He reported a then industry average of 20 to 24 decibels, with General Electric UHF receiver's closing the previous year at 16 to 20 decibels and then currently running at 12 to 16 decibels. In charts which are a part of the record of that hearing, he demonstrated the significance of this noise factor in terms of received picture on the UHF receiver. He predicted that further gains could be expected from set manufacturers.

In reviewing this situation with my associates of the receiver operation of the company, prior to appearing before you today, I was advised that further progress in the state of the art has, in fact, been made. It is now possible to achieve a noise factor three decibels better than our last report to you by using a radically different receiver tube developed by our engineers. This tiny tube, which could go in the front end of a UHF receiver, is an offshoot of a classified military type.

If you will forget decibels for a moment—and I know most of you are not engineers—I would like to express it in this next sentence: That this improvement in receivers is as effective, as far as the looker and listener is concerned, as quadrupling the effective radiated power of the transmitter. I just happen to have a tube here in my pocket—

Senator BIBLE. That was very thoughtful of you. [Laughter.]

Mr. CHAMBERLAIN. A tiny little fellow, Senator [showing tube].

Senator BIBLE. It certainly is.

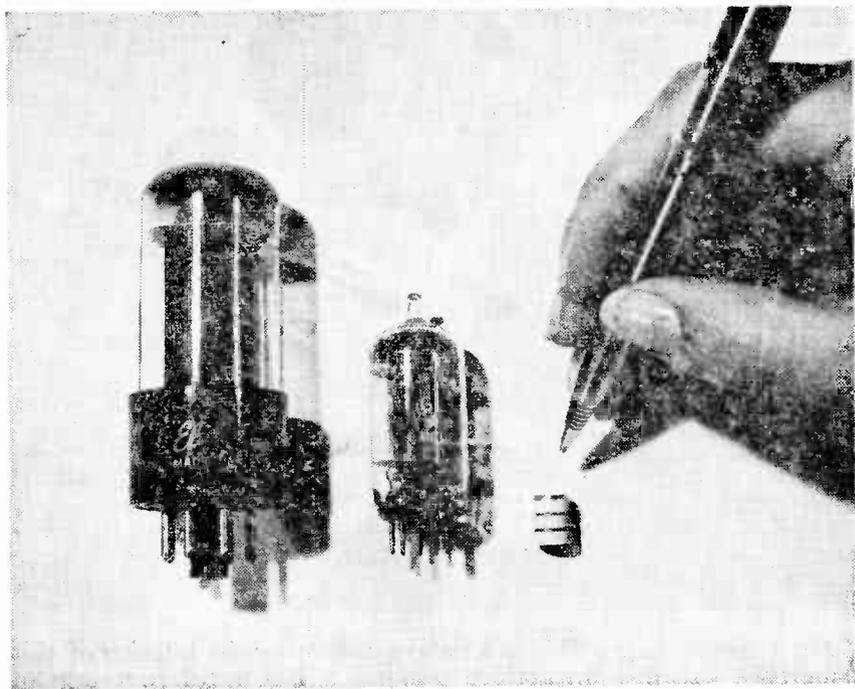
Mr. CHAMBERLAIN. Again, departing slightly from this prepared text, and in an attempt to clarify this just a little bit—

Senator BIBLE. You could almost make that tube a part of the record.

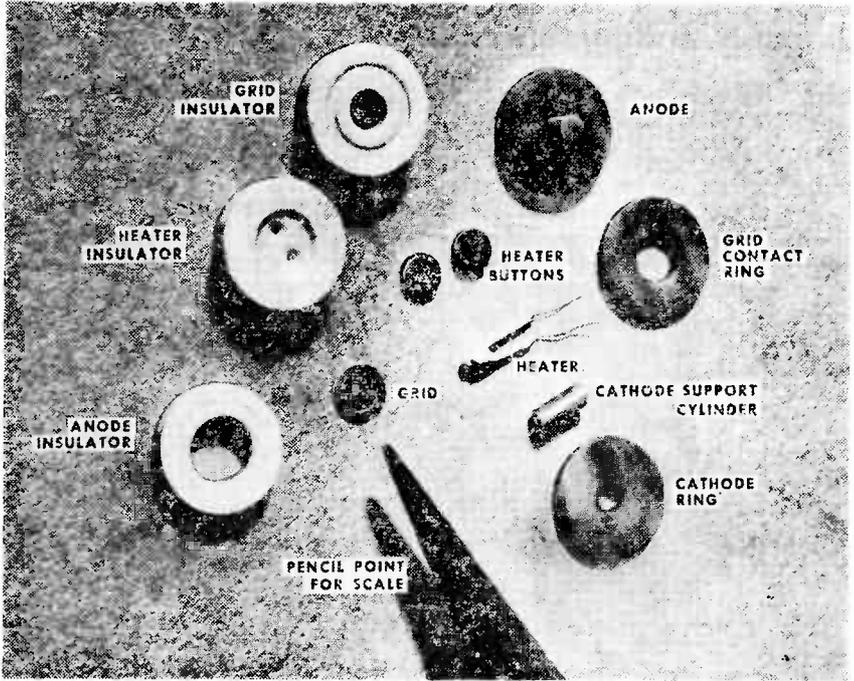
Mr. CHAMBERLAIN. That is right. Here is a picture of that tube compared to a miniature glass tube and the standard-sized glass tube and with the lead pencil in there, as a matter of scale.

Senator BIBLE. It certainly illustrates the point very well. This can be made a part of the record, for the benefit of the committee.

(The picture referred to, together with an enlarged photograph of the components of the tube, are as follows:)

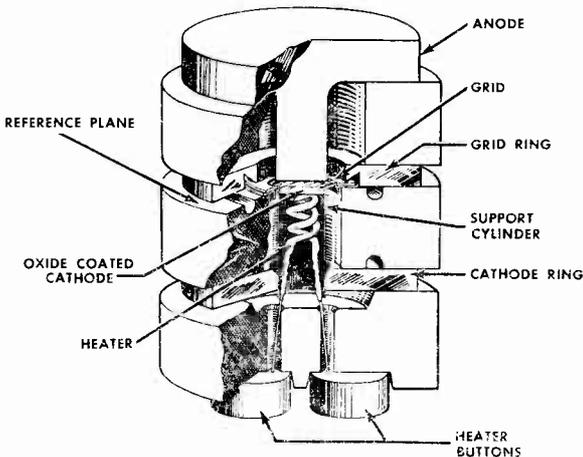


Milestones in radio and television receiving tube development. At left, conventional glass type with plastic base; center, miniature-type tube; right, new ceramic microminiature introduced by General Electric.



Mr. CHAMBERLAIN. This is a cutaway showing the interior of this same tube [holding up a third picture]. The metal parts are of titanium, largely, the body of the tube is ceramic. It is an interesting thing. This tube can be used in certain classified work, including missiles. It is capable of full operation, at great exalted temperatures—temperatures in excess of 700°C .

Senator BIBLE. Let's likewise make this part of the record.
(The picture is as follows:)



G-E MICRO-MINIATURE CERAMIC TUBE, TYPE 6BY4

MR. CHAMBERLAIN. It looks like a blowtorch at that point. Here are some of the parts that go in there. I will touch on one of them. This structure labeled "grid" in the center portion of this tube is a mesh, like a fly screen, if you want to think of it that way. There is a little bit of difference, though. The wires are four ten-thousands of an inch in diameter. That is about one-fifth as thick as a human hair, and they are spaced 1,000 to the inch.

MR. COX. Could you tell us, if it is not classified, just generally how the cost of manufacture and of operation of a set with this in it would compare with the present sets?

MR. CHAMBERLAIN. Would you like me to talk on that now?

MR. COX. If you have it in the statement later, that will be all right.

MR. CHAMBERLAIN. I would like to defer that, if I may.

MR. COX. All right.

SENATOR BIBLE. I would be interested in that because I just got a bill on my little TV set yesterday for a tube. If it isn't classified, you may develop it in the course of your testimony.

MR. CHAMBERLAIN. Our tube operation sampled every tuner manufacturer in the industry and every set manufacturer in the industry with free samples of this radical, new tube, offering them our assistance toward the development, by them, of successful applications in their equipment. These initial samples were shipped without cost, and we have made additional samples available at nominal charges. We understand that many companies in the industry have devoted considerable time and effort toward achieving successful applications of this new tube.

We can summarize our receiver story in substantially the words used by Dr. Fink to the effect that the noise factor has been the fundamental limitation on UHF receiver performance and that, although television set manufacturers cannot be complacent, gratifying progress has been and is being made.

I would be the first to concede that I am not qualified to pass on the broader issues involved in this allocations dilemma. My experience has been primarily in the development, manufacture, and marketing of equipment. From that standpoint, it is my unqualified opinion that there is available today UHF transmitting and receiving equipments capable of furnishing an adequate service so far as the technical considerations of the equipment are concerned.

The General Electric Co. did file a statement in the FCC's pending Allocations Rule Making Proceeding, docket 11532. I would like to file with this committee a copy of that statement without taking the time to read it into the record.

SENATOR BIBLE. How long a statement is that? It can be made a part of the record. Is that attached to your statement?

MR. CHAMBERLAIN. Yes.

SENATOR BIBLE. It will be made a part of the record.

(The information is as follows:)

FEDERAL COMMUNICATIONS COMMISSION, WASHINGTON 25, D. C.

Docket No. 11532

In the Matter of Amendment of Part 3 of the Commission's Rules and Regulations Governing Television Broadcasting Stations

COMMENTS OF THE GENERAL ELECTRIC CO.

As a manufacturer of both UHF and VHF transmitters and receivers, the General Electric Co. has from the beginning been closely associated with the matters covered in docket 11532, and it is in this capacity that these comments are being filed.

To those of us who have more particularly developed, manufactured, installed, and checked out UHF transmitter and antenna systems, it is of vital concern that if UHF is to be abandoned, it is not

(1) given up under the mistaken impression that it is incapable of giving an adequate service;

(2) lost by default—through failure to recognize that without positive prompt action to help UHF now, it may soon become economically impossible for UHF to continue as a television service.

If UHF is to be abandoned, we urge that such a drastic irretrievable step be taken only with a full awareness of the consequences, based on a thorough examination of all the critical facts.

In our judgment, based on an intimate day-to-day association with many UHF and VHF stations through our capacity as the supplier of equipment, all that has been established by television operations from the sixth report and order to date is that UHF stations have generally not survived competition with VHF stations in the same markets. Taken to its logical conclusion, this may then force a choice between an all-VHF television service or an all-UHF television service. Although there may appear to be some intermediate solutions, we suggest that any compromise between these two positions will in the long run ultimately prove to require the abandonment, for economic reasons, of the UHF channels. It is for this reason that we conclude that it is essential to examine carefully the ultimate issue at this time.

In any choice between an all-VHF or an all-UHF service, the availability of 70 UHF channels would, in the absence of very special circumstances, tend to weight the balance almost conclusively in the direction of UHF, keeping in mind the Commission's broad objectives as expressed in the sixth report. However, the trend at the moment discloses an almost exclusive preoccupation with the infinitely more limited VHF channels, or compromises based on the use of VHF. The purpose of our comments is to urge that any consideration of the issues in this rulemaking proceeding should start with a thorough objective inquiry into the possibility of an adequate all-UHF television service.

We suggest that although such a study appears to be both the obvious and the logical first step, it has never been the subject of any intensive inquiry¹ and therefore it may well be that no one is today properly qualified to state whether UHF can or cannot give an adequate nationwide competitive TV service.

We wish to make it clear that the General Electric Co. is not supporting (or attacking) the concept of an all-UHF service. Our position is only that the first and primary question to be resolved by the Commission in this rulemaking is whether it is possible to have an adequate television service utilizing UHF channels. Not until this question is definitely settled can it be possible to proceed with assurance to a consideration of the other alternatives—each of which involves infinitely more far-reaching compromises of FCC principles.

An all-UHF television service was in fact originally contemplated by the FCC (Chairman Hyde's testimony before the Communications Subcommittee, p. 132). It has more recently been said that "In theory very significant gains would accrue to the public if this were to happen. And indeed if the decision on television allocations were being made for the first time, it would be difficult to conceive of a good argument against having all television in the UHF * * *" (the Harry M. Plotkin memorandum of February 1, 1955, prepared for the Senate Committee on Interstate and Foreign Commerce: p. 10).

¹ See, for example, par. 25 of the sixth report and the testimony of then Chairman Hyde before the Communications Subcommittee at p. 141 (May 1954).

A major objection has been said to be the cost to the public of converting its receivers.² However, any study would presumably include an examination of proposals for a transition period which would be coextensive with the useful life of the great majority of existing television receivers. A move of the television service to UHF over such a 5- to 7-year period, with stations permitted in the meantime both a VHF and a UHF channel, could greatly reduce the economic impact on the public. Such a period would also coincide with the volume sale of color receivers and the peak of the normal monochrome replacement purchases—both of which factors could be helpful in easing the conversion problem. The public would in effect have adequate notice, so that when individuals in the normal course of events came to purchase a color set or a second set or a replacement for their worn-out monochrome set, they would buy either a VHF-UHF set or a UHF-only receiver. In this sense at least theoretically there would be no major economic loss suffered by the public. Station operators would in general have time enough to fully depreciate their VHF transmitters, and to use VHF income to cover their investment in UHF equipment. We do not represent that the net effect would be to please every interest: we are faced with a true dilemma where there is no one satisfactory solution. It is necessary for some interests to be intruded upon, and the question is to make sure that all of the interests are adequately evaluated. A transition period of this nature would not seem to foreclose further consideration of this approach when we consider the critical nature of the problem; the 10 years already devoted toward attempting to realize the basic objectives; and the advantages offered by a 70-channel service compared to a 12- or 15-channel service.³ Furthermore, though it seems essential to program any such conversion over such a period of time, the study may disclose that many major advantages would be realized almost immediately, in the event that such an approach is deemed to be feasible.

Assuming then that there is no controlling reason foreclosing the consideration of an all-UHF service, we wish to express our conviction that a thorough objective study of the performance characteristics of UHF equipment would bring into existence for the first time sufficient evidence to permit a conclusion to be drawn on the technical ability of such equipment to give an adequate television service.

There are respects in which VHF is capable of providing a better television service than UHF.⁴ We suggest, however, that this would not necessarily warrant a conclusion that the Commission is, therefore, limited to VHF channels for its television service. A Cadillac is superior to a Chevrolet in several respects, but the Chevrolet is capable of providing a more than adequate transportation service. If it were necessary to abandon production of 1 of the 2, it is

²Note in this respect that since the sixth report many proposals designed to help achieve the objectives of that report and order sought indirectly to require the public to buy all-channel receivers. It was, for example, suggested that manufacturers be required to manufacture only all-channel receivers—either by agreement or statute. The objection made to most of these proposals was not the cost to the public—it was that the proposals were either not practical or not effective. Particularly when viewed over the transition period which has been suggested, the cost to the public—rather than being considered an absolute bar to a move to an all-UHF service—should perhaps be considered and weighed as one of the investments required to achieve the most efficient and effective utilization of a great national natural resource, the spectrum.

³We suggest that of all the current proposals, the all-UHF approach could be said to have the highest value potential:

(1) It is the solution most likely to produce the fewest continuing conflicts in the constant struggle for space in the spectrum.

(2) It would both conserve spectrum space and represent an efficient utilization of the spectrum.

(3) It will enable equipment manufacturers to concentrate on accelerating the development and production of advanced designs of transmitters and receivers.

(4) It will serve the anticipated needs of many other critically needed existing FCC services, as well as the military for additional VHF space.

(5) In contrast to the complexity of engineering and administering VHF drop-in programs, it would provide a simple, fundamental, long-term solution to the overall allocation problem.

(6) All television stations would then be on a basis of substantial equality in terms of their ability to compete with each other both for programs and audience.

(7) By the same token, there will be room for one or more additional strong networks since there will be outlets available in key markets having equal desirability, each with the other in those markets.

(8) Long-range future expansion would be more easily facilitated through the use of 70 channels, compared to the severely limited spectrum space available in the very high frequency area.

⁴Note in this connection that the VHF drop-in proposals would inherently appear to destroy at least some of the very characteristic as to which the VHF superiority is most advertised—coverage. There are of course some respects in which UHF is inherently superior to VHF. See in this connection the October 7, 1955, petition of the American Broadcasting Co., pp. 9 and 10.

conceivable that considerations of maximum economy and efficiency in utilization of critical materials might tip the balance toward the Chevrolet—even though it is inferior to the Cadillac in much the same sense that UHF is inferior to VHF. The study we propose of the technical capabilities of UHF would be designed not to compare it with VHF, but to determine whether despite some disparities in that comparative respect, UHF still has an absolute capacity for adequate service which justifies the FCC in considering retaining the 70 UHF channels for the television service.

There is, of course, the problem of whether sufficient assignments could be made in an all-UHF allocation table to permit realization of the objective of a nationwide competitive service. While this would obviously have to be explored, we have a less acute allocation problem with a 70-channel service than with a 12- or 15-channel service, so this does not seem to be the critical consideration at this stage.

Consistent with our approach to this rulemaking proceeding, we refrain from comment on VHF drop-in proposals, proposals for additional VHF channels, and other alternatives, consideration of which must necessarily proceed on the unproven assumption that an all-UHF service is economically or technically impossible, and favorable action on which would probably lead to the practical abandonment of the UHF channels. Disposition of deintermixture proposals also would depend on a determination of the adequacy of UHF.

It would seem of critical importance that existing UHF stations be encouraged to remain in operation during the period of any study such as that suggested in these comments. Should such a study affirmatively establish that UHF is capable of giving an adequate service, we suggest that it is particularly important that there be a nucleus of operating UHF stations to serve as the base on which to build the transition period previously outlined. On the basis of our close association with many of the currently operating UHF stations, it is our firm conviction that it will take some affirmative action from the Commission at this time, if many of these UHF stations are to continue in operation. Whenever the Commission acts to authorize a VHF station whose signal inevitably will enter a market now served by UHF stations, the ability of such UHF stations to continue is definitely jeopardized. We strongly urge that if the Commission concludes that a study should be inaugurated to establish the facts with respect to the ability of UHF to give an adequate television service, it should at the same time adopt a policy of not authorizing any additional VHF stations during such period where the effect of the operation of such a VHF station would be to enter a market now served by UHF stations.

In closing our comments, we again wish to emphasize that the General Electric Co. is definitely not proposing an all-UHF television service. We are urging that before the UHF channels are lost to the television service either by intent or by default, there should be a major effort to determine what the facts are with respect to ability of UHF to furnish an adequate service. We do not, ourselves, know the final answer although we are convinced that there is considerable misunderstanding in this area. We would, therefore, propose that the Commission accept the offer of the RETMA Frequency Allocation Study Committee to conduct those technical studies which the Commission may determine are essential to its consideration of the issues in this rulemaking proceeding; and that the first such inquiry should ideally be into the effective coverage of UHF broadcasting under various conditions of terrain and power. In our opinion, there should be sufficient data fairly readily available on this specific inquiry to permit a highly informative report to be made within 60 to 90 days.

Respectfully submitted.

W. J. MORLOCK,

General Manager, Technical Products Department, General Electric Co.

SYRACUSE, N. Y., December 12, 1955.

MR. CHAMBERLAIN. However, since this statement has apparently been misunderstood in some quarters, I would like to take time enough to summarize the company's position as outlined in this statement.

To those of us who have developed, manufactured, installed, and checked out UHF transmitter and antenna systems, it is of vital concern that if UHF is to be abandoned it is not—

(1) given up under the mistaken impression that it is incapable of giving an adequate service;

(2) lost by default—through failure to recognize that without positive prompt action to help UHF now, it may soon become economically impossible for UHF to continue as a television service.

If UHF is to be abandoned, we urge that such a drastic, irretrievable step be taken only with a full awareness of the consequences, based on a thorough examination of all the critical facts.

In our judgment, based on an intimate day-to-day association with many UHF and VHF stations through our capacity as a supplier of equipment, all that has been established by television operations from the FCC's sixth report and order to date is that UHF stations have generally not survived competition with VHF stations in the same markets.

It would seem reasonable under these circumstances for a major effort to be directed toward developing and strengthening the use of the 70 channels available in the UHF part of the spectrum. However, to our deep concern, the trend for the past few months has disclosed an amazing preoccupation with the infinitely more limited VHF channels or compromises based on the use of VHF.

The real purpose of our comments before the Commission was to urge that any consideration of the issues in that rulemaking proceeding should start with a thorough, objective inquiry into the possibilities of the more effective use of the UHF frequencies as a condition precedent to achieving an adequate nationwide television service.

We suggest that although such a study appears to be both the obvious and the logical first step, it has never been the subject of any intensive inquiry, and therefore it may well be that no one is today properly qualified to state whether UHF can or cannot give an adequate television service.

Effective utilization of the UHF channels—

- (1) offers the solution most likely to produce the fewest continuing conflicts in the constant struggle for space in the spectrum;
- (2) would enable equipment manufacturers to concentrate on accelerating the development and production of advanced design of UHF transmitters and UHF/VHF receivers;
- (3) would provide a fundamental, long-term solution to the overall allocation problem;
- (4) would provide room for one or more additional networks;
- (5) would facilitate long-range future expansion.

Assuming there is no overall controlling reason for avoiding use of the ultra high frequencies, it is our conviction that a thorough, objective study of the performance characteristics of UHF equipment would bring into existence, for the first time, sufficient evidence to permit a conclusion to be drawn on the technical ability of such equipment to give an adequate television service.

The study we propose of the technical capabilities of UHF would be designed not to compare it with VHF, but to determine whether, despite some disparities in that comparative respect, UHF still has an absolute capacity for adequate service which justifies the FCC in taking the steps necessary to retain the effective use of the UHF channels for the television service, however radical these steps may initially appear to be.

In closing my comments, I wish to emphasize that the General Electric Co. is definitely not now proposing an all-UHF television service.

We are urging that, before the UHF channels are lost to the television service either by intent or by default, there should be a major effort to determine what the facts are with respect to the ability of UHF to furnish an adequate nationwide service.

Senator BIBLE. Thank you very much, Mr. Chamberlain.

Do you have any questions?

Mr. Cox. Yes, sir.

Senator BIBLE. You may proceed.

Mr. Cox. Could you comment now, then, on that cost item that we raised a while ago?

Mr. CHAMBERLAIN. The cost of the tube—the selling price, the retail selling price has not been definitely established. Assuming that it is well accepted, and that volume production can be achieved, we think it will be priced under \$5 at list, and I hasten to point out that list prices on tubes generally only prevail where the serviceman puts them in the socket. When go you to the store and buy them, generally speaking you buy them for somewhat less than list.

Mr. Cox. How does that compare with the existing glass tubes that are in use?

Mr. CHAMBERLAIN. There is no directly comparable existing glass tube. It is certainly higher in price than many tubes used for TV purposes.

Mr. Cox. How does its life compare and its performance, powerwise, and so forth?

Mr. CHAMBERLAIN. It is too early to tell about life except in the laboratory. Sometimes those tests are not conclusive. I see no reason why it should not be as long lived as existing tubes. In many respects it is a more stable, rugged tube. It will stand acceleration sufficient to adapt it to missile work, for example. It is entirely free from microphonics. It is built like a brick house, shall we say.

Mr. Cox. Does it enter into this problem of whether or not you can get the same service in the high ranges of the UHF band of spectrum as in the lower ranges, or doesn't it relate to that problem?

Mr. CHAMBERLAIN. It does definitely. It is a high-frequency tube. The noise measurements I mentioned were taken at 900 megacycles, which is just above channel 84 in the UHF band. It is designed with this purpose in mind.

Mr. Cox. Could you tell us just in general terms what the percentage of all-channel sets now being manufactured is?

Mr. CHAMBERLAIN. I am not sure I could give you the industry figures. I took a reading on it with our own people just the first of this week, and we are currently manufacturing and shipping 18 percent of our production in all-band sets.

Mr. Cox. Is that more or less than you have done in the past?

Mr. CHAMBERLAIN. We have been as high as 25 percent at times, and usually found them backing up in the warehouses when that occurred. We have been, I think, as low as 15 percent, so it is pretty close to being an average, I would say.

Mr. Cox. Does that include both color and black-and-white sets?

Mr. CHAMBERLAIN. We are not currently building any color receivers.

Mr. Cox. Could you tell us what is the cost differential between your VHF-only and your all-channel sets, approximately?

Mr. CHAMBERLAIN. Between \$20 and \$30, depending on whether it is in the higher price range or the lower price range.

Mr. Cox. Is that to the consumer?

Mr. CHAMBERLAIN. Yes. All of these are consumer prices. I think, if I may say so, there has been too much confusion in people quoting manufacturing prices at times, rather than selling prices, and you get a distorted view since we are on the incentive system in this country.

Mr. Cox. It is this differential which makes a man make up his mind whether he buys it or not?

Mr. CHAMBERLAIN. Yes, sir.

Mr. Cox. In a statement of Mr. Howard which was inserted in the record he quotes some costs for transmitters and antennas which show that the combined cost for transmitter and antenna for the low-band V channels would be about \$176,000, for the high-band V channels, about \$250,000, and for the UHF band something less than that, around \$235,000. Now, that doesn't quite agree with some information we have had. Would that be, in your opinion, more or less accurate?

Mr. CHAMBERLAIN. I assume, Mr. Cox, that these are for the maximum effective radiated powers that are permitted in these bands?

Mr. Cox. Yes; 100, 316, and 1,000 kilowatts, respectively.

Mr. CHAMBERLAIN. I can tell you what our list prices are.

Mr. Cox. That would be very helpful.

Mr. CHAMBERLAIN. VHF channels for 100 kilowatts, ERP, a 35-kilowatt transmitter with a 3-bay antenna with a gain of somewhat over 3, the selling price is \$163,000. In the high channels, 7 through 13, for 316 kilowatts, ERP, using a 50-kilowatt transmitter and the proper antenna, it would amount to \$253,000. We can achieve a megawatt of power two ways, and have done so: In WILK we are using a 23-kilowatt transmitter, and an antenna with a gain of 50—the price tag is \$226,000. We can get the same megawatt with a 45-kilowatt transmitter and a 25 gain antenna—that comes out to \$244,000.

I can add one more while you are at it.

Mr. Cox. All right.

Mr. CHAMBERLAIN. We can go to 2 megawatts, which is what WGBI has requested permission to use on a temporary experimental basis, at a cost of \$270,000.

Mr. Cox. How would the power costs of operation in these three categories compare? Are they roughly the same, or do they get more expensive as you go up the spectrum?

Mr. CHAMBERLAIN. It gets progressively higher. I would hasten to point out, however, that when you consider the total operating cost per hour of a TV station, including the investment and talent, programming, and manpower necessary to handle it, and all the rest of it, the power cost is not a large percentage of the total.

Mr. Cox. It can cost more than that?

Mr. CHAMBERLAIN. That is right.

Mr. Cox. Could you tell us something in general terms about the area coverage efficiency of transmitters in these three categories, assuming, let us say, you are in a region where the terrain is not unfavorable to UHF—that is, where there are not a lot of hills?

Mr. CHAMBERLAIN. That gets to be kind of a tough one to answer, Mr. Cox. The closest I can come, I think, to giving you a factual story

on it will not answer your question exactly as you have expressed it, but it will give a measure of comparison on power.

I would like to go back and refer to a chart which was part of my testimony before the subcommittee in 1954 in which I attempted to do just that. This chart was drawn to illustrate the comparative power necessary for given coverage on channels 7 through 13 in the case of a VHF station, and channels 14 through 83 in the case of a UHF station, both stations located in Washington, both stations using the identical tower height of 500 feet.

In order to get grade A coverage for a radius of 10 miles we needed 1.6 kilowatts ERP for VHF and 5 kilowatts for UHF. For a grade A coverage of 24 miles we needed 60 kilowatts ERP on VHF, high channel, and 250 kilowatts on UHF. For 32-mile grade A coverage, 200 kilowatts for VHF and 1,000 kilowatts for UHF. Now, the ratios in power—effective radiated power—as compared between a U and a V vary on these 3 distances from 3 to 1 in the case of the shorter range coverage to 5 to 1 in the case of the longer range coverage.

There should be one thing pointed out, and that is that you can achieve, economically, much higher gain, as we term it, in a UHF antenna than you can in a VHF antenna. Gains of 50 are entirely practical on a UHF antenna. Gains much in excess of 12 are very expensive and difficult to get on VHF, in an economically sound structure, so the disparity between transmitter powers is not as great as the disparity in effective radiated power.

Mr. Cox. In the figures that you gave there, you had gotten the UHF station up to its then permissible maximum power of a thousand kilowatts?

Mr. CHAMBERLAIN. That is right.

Mr. Cox. You had the high band V up to 200 kilowatts but it could still go up another 116 kilowatts?

Mr. CHAMBERLAIN. That is correct.

Mr. Cox. So that that would have given it some additional coverage which could not then be duplicated with the permissible power of the U station?

Mr. CHAMBERLAIN. That is correct, as long as you continue the spacings that were set up by the sixth report and order. By that I mean that if you go to any drop-in proposition, such as has been proposed, you will artificially limit in many cases—

Mr. Cox. Interference will enter the picture?

Mr. CHAMBERLAIN. Interference will be the governing factor rather than the ability of the transmitter to lay down a signal at a distance. I submit that you can get the same effect any time by examining the AM spectrum. We have had broadcasters using 250 watts on AM who can see their tower lights farther at night than they can hear their stations without interference.

Mr. Cox. Changing our assumptions to allow for some hilly terrain, or for foliage, and so forth, does the differential as between the effective area of the two types of stations become much greater there?

Mr. CHAMBERLAIN. I beg your pardon; would you restate that?

Mr. Cox. Let us move it to Pennsylvania where you have hilly terrain. Is the differential between the effective area coverage of a high band V and a U station going to be more unfavorable as far as the U is concerned?

Mr. CHAMBERLAIN. You will have deeper shadow areas if you are on the shadow side of a mountain or something of that sort. It takes more power to fill in satisfactorily. I hasten to point out, though, that as Senator Bible said earlier, translators, repeaters, satellites, whatever you want to call them, furnish a very economical means of filling in such areas, and probably can be licensed to be operated unattended. I would expect that would be the case.

Mr. Cox. With regard to this 2,000-kilowatt transmitter at Wilkes-Barre, has your experience been such as to lead you to believe that that can duplicate the coverage, reasonably closely, of a V station operating at maximum power?

Mr. CHAMBERLAIN. For two reasons, I can't answer that. The first is that the station is not on the air yet with the 2,000 kilowatts, and the second is that there is no V in the area to compare it to.

Mr. Cox. Those are two good reasons.

Shifting to another point, there has been some suggestion that UHF has certain advantages over VHF as far as color transmission is concerned. Could you comment on that?

Mr. CHAMBERLAIN. I have heard that statement made. I cannot speak from full knowledge. I have not seen a UHF transmission and a VHF transmission side by side, and I think you would have to see quite a few under varying circumstances, and under controlled conditions, before you could make that statement, and have it proved one way or the other.

There are some slight advantages or disadvantages—paper advantages and disadvantages, at least—on one over the other. The people I have talked to—in both our transmitting and our receiving areas—the engineers doubt if there is any significant difference. They frankly think it is pretty much of a standoff. Now, we do know that on UHF certain types of interference, such as automobile ignition and lightning, are not factors, and they are sometimes bad factors on VHF. That would apply either to black and white or to color.

Mr. Cox. You talked about the economics of the broadcasting industry as affecting the development of new equipment, et cetera. Mr. Storer testified regarding a proposal that his company had made for detintermixture and other allocation changes which, in his opinion, would create some 25 markets in the top 100 which would be either all UHF or with only one V station, which he thought would permit the U's to continue to operate. He estimated this would comprise some 20 million families and some 4 million sets. Do you think the preservation, on a sound continuing basis, of that much of a UHF operation would afford sufficient incentive to equipment manufacturers to continue to develop the transmitters and receiving equipment and continue the progress you have been outlining?

Mr. CHAMBERLAIN. I do.

Mr. Cox. That is all.

Senator BIBLE. Thank you very much, Mr. Chamberlain, for your very helpful analysis.

The chairman has to make a rather urgent phone call. We will take a 5-minute station break and be back at 11:25.

(There was a short recess taken.)

Senator BIBLE. The committee will come to order, please.

Our next witness is Martin F. Malarkey of the National Community Television Association.

We are very happy to have you with us, Mr. Malarkey. You may proceed.

**STATEMENT OF MARTIN F. MALARKEY, JR., PRESIDENT,
NATIONAL COMMUNITY TELEVISION ASSOCIATION**

Mr. MALARKEY. Thank you very much, Senator.

Mr. Chairman, members of the committee, at the outset I wish to express my sincere appreciation and that of the National Community Television Association for the opportunity you have given to us to appear and present certain facts about the community antenna television reception available in those areas having little or no television service.

The National Community Television Association, as the name implies, is a national organization of community antenna television operators and affiliated manufacturers and suppliers of community antenna television equipment, formed for the purpose of promoting the development of community antenna television. At the present time it represents more than 200 operating companies throughout the United States, as well as 15 manufacturers and suppliers of community antenna television equipment.

During the course of my remarks I will briefly describe the short history, scope, and functions of the community antenna industry, referring to the mode community which has been set up in the hearing room. Then I will discuss the basic problem of securing adequate television reception in fringe reception areas, remote from television broadcast stations.

Senator BIBLE. That I am glad to hear. Go right ahead.

Mr. MALARKEY. Thank you.

I will make certain recommendations toward a solution of these problems. I will also address myself to certain matters which, I understand, have been raised before this committee regarding the legal status of community antenna television and the extent to which, if any, the Federal Communications Commission or State regulatory agencies should exercise control over the community antenna industry. I will, of course, welcome any questions from the committee or its counsel.

In the hearing room with me are E. Stratford Smith, general counsel and executive secretary of the National Community Television Association; Mr. Fitzroy Kennedy, chairman of the board of Spencer-Kennedy Laboratories, Inc., of Boston, Mass.; and Mr. Donald-Spencer, president of that company. Spencer-Kennedy Laboratories is a prominent manufacturer and supplier of community antenna television equipment. Mr. Kennedy is also the chairman of an advisory committee of such manufacturers and suppliers affiliated with the association.

Also present is Mr. Milton J. Shapp, president of the Jerrold Electronics Corp., of Philadelphia, Pa., another prominent manufacturer of community television equipment. Mr. Shapp will testify in his own behalf on the fringe area reception problem. I may, with the permission of the committee, call upon these gentlemen to assist me

in responding to some of the legal and technical questions which may be addressed to me.

The concept of community antenna television is quite simple. It involves an extension of the apartment house and hotel master antenna systems to an entire community, or part of a community. Generally, community antenna systems will be found in communities where topographic or geographic conditions preclude, or seriously limit, reception from existing stations, and, secondly, where only limited local television service, in terms of network services and number of stations, is available. The model village in the committee room illustrates the basic principle of a community antenna system. In the typical case a master receiving antenna is located on a mountain top where signals of distant stations are to be received. [Indicating on the model.]

You will notice separate antennas are constructed for each channel. Signals are received at this point, amplified and transmitted by means of a coaxial cable down into the community to be served, and at a distribution point within the area suitable line amplifiers, which you see represented in small models here on different poles, are used to amplify the signal. Then the coaxial cable is used to distribute the signal into the individual homes of the public desiring the service.

Senator BIBLE. That cable isn't kept above ground, though?

Mr. MALARKEY. Yes, sir. The cable is mounted on telephone poles and power company poles within the community.

Senator BIBLE. Ordinarily don't you go underground?

Mr. MALARKEY. There have been 1 or 2 systems constructed underground. The majority of them are above ground.

Senator BIBLE. I see. Thank you.

Mr. MALARKEY. It is the usual practice to require an initial payment, sometimes called a connection charge, from each subscriber. This is used to defray, in part, the cost of building the system.

Senator BIBLE. Do you have an average figure on that?

Mr. MALARKEY. The average figure, sir, is about \$125.

A monthly maintenance charge, which will average \$3.50 per month, is collected from each individual subscriber. Basically, a community system provides an antenna service that delivers to its customers all the program content, without alteration or deletion in any way, of the signals it receives at the master antenna site. It cannot guarantee to bring to its subscribers any particular program, or series of programs. We are not in the business of furnishing a program service. The basic function is that of a master receiving antenna, almost wholly analogous to those found in apartment houses and hotels in large cities.

The industry is hardly more than 5 years old. It dates from the first system installed at Astoria, Oreg., in 1949, which was, as far as we have been able to learn, a noncommercial operation. The first commercial community antenna system is believed to be the one installed at Lansford, Pa., in May 1950. From this beginning the industry has grown to an estimated 465 community antenna systems throughout the United States, serving more than 1,250,000 people. The investment in the industry has been estimated to range from \$30 to \$50 million. This, of course, is only a very, very small part of the public investment in television, and it is not contended that

community antennas constitute a large segment of the television economy. Community antenna television is simply one facet of the overall television industry, but one which plays a very significant part in making television reception available on a truly nationwide basis.

The question into which the committee is inquiring today relates to the development of ways and means for meeting the requirements of what, for the most part, are small cities and towns, for either their first, improved, or additional television service. In these cases, broadcast stations have either not been considered economically practical, or more service than the community could provide through available stations is desired.

The demand of the public for television in these areas is such that it cannot be ignored or denied. The problem, of course, is not new. It has existed almost from the day the first television station went into operation. The community antenna television industry was born out of this requirement for service. In fact, it is the only method, up to this time, which has made significant progress in the direction of making fringe area reception possible. The community antenna industry agrees wholeheartedly with what it knows is the sentiment of this committee—that every reasonable effort must be made to reach communities not now having adequate, or any, service. Moreover, the community antenna industry does not oppose any legal and technically sound methods of bringing television service to remote areas, whether they be translators, satellite stations, or other means. Such other methods will not sound the death knell for community antenna television. We are completely confident that community antenna television systems are, and will remain for a long time, a necessary and significant factor in the fringe area television picture. In fact, we believe that in most instances, if not hampered by unnecessary restrictions, community antenna television can do a superior job at a cost which the public will be willing to pay in exchange for the assurance of continued, high-quality service, furnished by responsible management, financially and technically qualified to serve the public.

Therefore, I wish to emphasize the fact that our industry is not opposed to the establishment by the Federal Communications Commission of a technically and financially sound translator service; and it is our earnest hope that the Commission will be able to finalize its rules and regulations for such a service in the near future. The fact that sound standards should be adopted would seem elementary, since the public should not be misled into purchasing television receivers in situations where the translator operator is neither technically nor financially qualified to furnish and maintain consistent high-quality service.

The community antenna television industry has been, and is continually devoting its energies toward the development of new, low-cost, high-quality equipment to make community antenna television service practical in an increasing number of communities. I do not refer merely to research programs in making this statement. Much of this equipment is now available and more will shortly be announced.

There are ways in which the Federal Government could assist this industry in its endeavors to bring service to more communities at reduced cost. It is the intention of the industry shortly to petition the Federal Communications Commission for permission to utilize certain microwave frequency bands suitable for television transmis-

sion to serve community antenna television systems. This can be done without in any way interfering with other users of microwave frequencies. Approval by the Commission of this proposal, when it is presented, could substantially improve the ability of the community antenna industry to serve many more television-starved communities in cases where terrain and distance factors have heretofore made antenna systems impractical. Legislation is not necessary. There is nothing to inhibit amendment by the Commission of its rules to give the community antenna industry direct access to microwave service, once it has been convinced of the practicability of our proposal.

Another matter upon which I wish to touch briefly is the question which, I understand, has been raised before this committee regarding the jurisdiction of the Federal Communications Commission, if any, with respect to community antenna television. The suggestion has been made that the investment in community antenna television systems is "in a more or less dubious state until the question is decided."

I would like to say that the community antenna television industry does not regard its investment in this service to be in a dubious state, or in any way unsound, by virtue of the absence of any ruling by the Federal Communications Commission on the subject. A ruling by the Commission that community television systems are subject to its jurisdiction certainly would not destroy the community television industry. On the other hand, I wish to make it clear that community television operators do not believe that they are, or should be, subject to public utility type regulation by either the Federal or State governments. Community television service, while it is a public service, as are many private businesses which serve the public, is not, in our opinion, a public utility type industry.

Community television systems do not have the protection normally afforded to utilities. They are subject to competition from television stations, satellites, translators, and so forth, and such other methods of providing television service as may be authorized. An increase of power or the relocation of a television transmitter can change the competitive picture for a community antenna television operator by throwing a strong signal into a community which was never before reached. Competition and the threat of competition may be expected to maintain rates and charges at a reasonable level.

With the advent of the translator service, for example, there unquestionably will be even greater competition than exists today, and the proponents of each service will endeavor to convince the public that theirs is the most economical and practical. Accordingly charges must be established by community antenna television operators on a competitive basis. Obviously, also, for competitive reasons, service standards must be kept high. Regulation is only justified where a monopoly is permitted. Community antenna television systems do not enjoy a monopoly in the furnishing of television service. To place the community antenna television systems under utility-type regulations would, in our opinion, have the immediate effect of discouraging the flow of investment capital into the industry, and of equal importance, would substantially impair the ability of existing operators to maintain, improve, or extend their services.

The investing public must be assured of a reasonable opportunity to recover their investment, together with an adequate profit in a business so fraught with change as television. It is doubtful that

governmental agencies could or would wish to give to community television the traditional protection against competition that utilities generally enjoy, and which justifies regulation of their rates and services. Utility-type regulations would make investment in community antenna systems unattractive and could be expected to materially retard the further progress of this industry. The loser, of course, would be the public.

Gentlemen, I have endeavored to make this statement brief and to the point. By way of summary, we want the committee to know that the community television industry is as anxious as the committee to provide ways and means to bring television reception to the maximum number of people. We are pleased that the Commission is finally proposing to establish rules of the road governing the operation of low-cost translator stations to assist in resolving this problem. We have not opposed, and do not oppose, such a service if founded on a sound technical and economic basis which will assure to the public continuous, reliable service.

We also plan to develop the use of microwave transmission links on a non-common-carrier basis. As I stated just a moment ago, we believe that the community antenna television industry is a public-service industry, but that it is not a public utility type industry and that it can best flourish and serve the public interest under a concept of free competition with other methods of providing television service.

Thank you very kindly for your courtesy in granting me this time this morning, and I will be pleased to answer to the best of my ability any questions which members of the committee or counsel may have.

Senator BIBLE. Thank you very much, Mr. Malarkey. I am rather interested in what your studies have shown as to the size community which a community antenna system can economically serve.

Mr. MALARKEY. That, Senator Bible, depends entirely on several factors: How close is that community to a signal source. A community of 500 to 1,000 homes—as small as 500 to 1,000 homes—could economically be served by a community antenna TV system if the signal source were a mile or two away on the top of a mountain.

Senator BIBLE. By 500 homes do you mean 500 homes with TV? Is that 500 receiving sets?

Mr. MALARKEY. 500 potential receiving sets.

Senator BIBLE. 500 potential receiving sets?

Mr. MALARKEY. Yes, sir.

Senator BIBLE. Thank you.

Mr. MALARKEY. Yes, sir.

Senator BIBLE. Do you have, in your operation throughout your 200 operating companies, towns of that small population that have community antennas?

Mr. MALARKEY. Yes, sir; there are operations in West Virginia, for example, that serve as few as 25 and 30 homes.

Senator BIBLE. And that is economic?

Mr. MALARKEY. It is economic, because of the fact that the signal is available within a few hundred feet or a half mile away on top of the mountain. You run a coaxial line down into the homes. Usually the systems are built on a cooperative basis.

Senator BIBLE. If you are in an area that is truly an isolated area—and I am pinpointing my own State and thinking of Tonopah Valley, which is hundreds of miles from anywhere. It is 200 miles from Las

Vegas, 200 miles from Los Angeles, 400 miles from San Francisco, and they have the rather sizable Sierra Nevada range, which breaks it off from the coast. Would it be possible to operate a community antenna system in a community like Tonopah, which has about 700 homes? I don't know if I have assumed all the factors necessary for an intelligent answer.

Mr. MALARKEY. It is possible that a community television system would be feasible in Tonopah providing microwave service were made available to us so we wouldn't have the long overland haul into that community.

Senator BIBLE. The size of the community, then—in attempting to sum up what you are saying—the size of the community to be served depends a great deal upon the expense in receiving the signal?

Mr. MALARKEY. Yes, sir; that is correct.

Senator BIBLE. Thank you. You may proceed.

Mr. Cox. Are you able, when you go into a community of this sort, to extend service to everyone there who wants it, or do you find that the extension of your lines within the community to serve certain more or less isolated people on the fringes would be uneconomic?

Mr. MALARKEY. No, sir. The standard practice has been to extend the service into the remotest parts of town. If a town grants a franchise, or permission to develop the system, it is usually done on the basis that the system will provide service to all within the confines of the appropriate limits of the town.

Mr. Cox. If you have to run a special line out to a man who lives, say, a half a mile or a mile beyond anyone else, does he have any additional connection charge because of that fact, or does he pay just the charge that is paid by everyone else in the community?

Mr. MALARKEY. There have been cases that I am familiar with where that question has been raised. Usually we revert back to the old public utility company concept of contribution in aid of construction, and if a chap who is 2 or 3 blocks or a half a mile away from the end of the line desires the services, we will make it available to him upon his paying a connection charge that would be higher than what the people would pay that are along the regular lines, with the understanding that any homes that desire the service in between his home and the end of the system, when they connect to it, he would be refunded the money. That is usually the case.

Mr. Cox. You mentioned a franchise. When you go into a community, you have to then get permission from the governmental authorities to establish your system?

Mr. MALARKEY. Yes, sir.

Mr. Cox. Is that usually an exclusive franchise?

Mr. MALARKEY. No, it is not.

Mr. Cox. That is, if another operator wanted to come in, the city would still be free to grant him similar permission?

Mr. MALARKEY. That is correct.

Mr. Cox. Then you enter into some sort of contractual permissive arrangements with the telephone company or power company to permit stringing of your cables?

Mr. MALARKEY. Yes, sir.

Mr. Cox. Do any of these systems which have been installed emit radiation in the sense that might, for that limited purpose at least, bring them within the control of the FCC?

Mr. MALARKEY. I would like, if I may, to refer that question to Mr. Smith.

Mr. Cox. Certainly. Mr. Smith?

Mr. SMITH. Yes, Mr. Cox. There have been from time to time, problems arise because of the spurious radiation from the components of community antenna systems, and it is possible—technically possible—to minimize this radiation to a point where it does not interfere with off-the-air reception, and the Federal Communications Commission has instituted rulemaking procedures proposing to limit the amount of radiation from any point on a community antenna system. The Community Television Association has helped the Commission formulate the proposed regulation and filed comments in the proceeding.

We would say that they certainly have whatever jurisdiction they have to control the emissions or radiations from diathermy equipment, TV sets, etc. That would equally be applicable, I think, to community antenna systems. That is not the utility type regulation, however.

Mr. Cox. Did you have something further?

Mr. MALARKEY. No, sir.

Mr. Cox. You mentioned the average connection cost and average monthly charges. Could you tell us, at least approximately, what would be probably the maximum charge in each of those categories by a member of your association?

Mr. MALARKEY. There are systems that have charged as high as \$160 for a connection, and there are systems who have charged as high as \$7.50 per month, as their service and maintenance charge, but in those remote instances I would like to point out that the systems were usually located in communities that were spread wide apart, required tremendous investment in cable and equipment, and in the case of the system that charged \$7.50 monthly, they had contracted for microwave from the American Telephone & Telegraph Co., upon which they had to pay an \$8,000 or \$9,000 monthly rental; and the greater majority of that \$7.50 monthly charge was, of course, to pay for the microwave—

Mr. Cox. To get the signal into the community?

Mr. MALARKEY. Yes, sir; to enable the people to enjoy reception.

Mr. Cox. Would it be reasonable to say that generally both the connection charge and the current monthly charge bear a relation, in the first instance, to the system's capital expenditures and, in the second instance, to its own operating expenses?

Mr. MALARKEY. That is correct.

Mr. Cox. Now, doesn't there come a point in time, however, where the system will have recouped its investment in full?

Mr. MALARKEY. Yes, sir.

Mr. Cox. Does it continue, either through the initial connection charge or through excess current charges, to take in revenue beyond that point? Is there any reduction then made in the current charge, or is that continued at an even rate for the future?

Mr. MALARKEY. The pattern that has developed over the past 3 years is a pattern of continually lowered connection charges to the customers. The system will charge \$125 originally for its initial connections; possibly after the first 500 they will see fit to drop it to \$95 and

then to \$65, then to \$35. There is one system that now makes connections at no cost. They just pay the monthly charge.

Mr. COX. When these are reduced, is there a credit back to the people who paid the higher rate? They pay that for the first service?

Mr. MALARKEY. Yes, sir.

Mr. COX. Do you obtain permission from the originating stations to distribute the signals which you receive?

Mr. MALARKEY. No, sir. It is not our practice to ask for permission to receive the signals.

Mr. COX. Has this ever been challenged by the operator of a station?

Mr. MALARKEY. Since we are getting into the legal end of it, I would like to refer that to Mr. Smith.

Mr. COX. Mr. Smith?

Mr. SMITH. Yes, Mr. Cox. I would like first just to amplify Mr. Malarkey's preliminary answer. We do not as a matter of official policy go to TV broadcast stations and say, "Will you please give us permission to receive your signals?" This was done in the early stages of the industry on several occasions, and in some instances the stations immediately wrote out permission because they wanted the additional coverage that could come as a result. However, a lot of station operators realized they didn't know themselves exactly where the property rights, if there are any in a broadcast signal, would lie. For example, a lot of the programs are network programs. The station necessarily wouldn't have authority to grant any property-right permissions, if that issue is basically involved here.

Also, artists' and performers' societies, unions, sponsors, ad agencies, all manner of persons, might very well claim property rights, and the stations really were not in a position to grant any and all necessary permissions, if any permissions were required—and I want to keep emphasizing that. And on several occasions stations, including one of the prominent networks, said, "Don't bother to ask us. We want the additional coverage that your industry provides, but we are not in position to give you formal statements in writing." So we did adopt this practice of not going and officially requesting permission.

In almost every instance, however, the stations are well aware of the fact that their signals are being received, and in a majority of cases they furnish our operators copies of their program schedules, so that they can indicate what is going to be on their particular channel, at what particular time of day.

Now there have been a few isolated instances where broadcasters have undertaken to challenge the right of community systems to pick up their signals. They are so few that I can mention them specifically, if you would like me to.

Mr. COX. That is unnecessary.

Mr. SMITH. All right. The uniform response of the community antenna operators in those instances has been to the effect that the community antenna is operating nothing but a master antenna system, and that once a signal is broadcast into the air, any member of the public has a right to the reception of it in his own home for his private consumption, and that the question of how the signal is received—whether it be on a master antenna, in an apartment house, on a mountain-top, from a pair of rabbit ears on the top of somebody's TV set, or a roof-top antenna—has nothing to do with property rights.

If any rights exist in the broadcast signals, the community antenna operator does not infringe them because he is only exercising the rights of the public to receive the service, and he is only being paid for the purpose of furnishing an antenna system. Briefly, that is the answer that our operators have always given, and thus far we have not actually been taken to litigation on the question.

Mr. COX. Would you say, then, that that makes a distinction between the FCC's treatment of this question in the Bridgeport booster case, on the ground that you are not providing a rebroadcast, and the booster there was?

Mr. SMITH. I would certainly think that that would be the basis for treating, or putting, us in a different category. If we were in a position to have participated in that case and the issue were before us, that is precisely the argument that we would have made. We do not broadcast. We just furnish an antenna service. In the case of the boosters, it is a rebroadcast and the Communications Act itself requires permission of the originating stations for a rebroadcast.

Mr. COX. Have boosters or translators been installed in areas where community antenna systems are in operation, Mr. Malarkey?

Mr. MALARKEY. Yes. There have been several instances, Mr. Cox.

Mr. COX. Has there been any effect on the quality of your service from such operations?

Mr. MALARKEY. We have heard that there have been records of interference, interference signals from the boosters into the receiving antennas of the community antenna systems in that area.

Mr. COX. That is, they get a second image on the screen?

Mr. MALARKEY. A double image, yes, sir.

Mr. COX. Perhaps this is something on which you would not have any reliable figures, but could you express an opinion as to whether or not the citizens of a community could install and maintain a booster or translator for more, or less, than the average cost of installing and operating a community antenna system?

Mr. MALARKEY. I believe Mr. Smith would be more familiar with the economics of that question than I would be.

Mr. COX. Fine.

Mr. SMITH. That, Mr. Cox—and I am also going to take that ball and toss it to another witness you are going to have this afternoon, who is devoting a substantial amount of his presentation to that matter—but it would depend on the individual communities involved to a great extent. We think that over a period of a year or two, in many communities, that it can be demonstrated that the antenna systems will furnish a service at less cost to the public, but Mr. Shapp this afternoon can elaborate on it at length, I think.

Senator BIBLE. I hope this afternoon is not too many minutes away. [Laughter.]

Mr. COX. Do your operations tend to discourage the development of a local TV station in the area, or have you primarily operated in areas which, in your opinion, would never support a station?

Mr. MALARKEY. We operate primarily in those areas that economically would not support a TV station.

Mr. SMITH. Might I supplement that? This is a development that has just been evident through FCC public releases during the last month or two. There is a substantial indication today that potential broadcasters are not hesitating to apply for satellite construction per-

mits in areas occupied, or being served, by community antenna systems. We are seeing more and more of it every day. I really do not believe that we are a substantial hindrance to the development of broadcast service.

Mr. COX. Do you not in some instances actually operate in areas where there is a local station, where your service consists of additional program choices?

Mr. MALARKEY. That is correct.

Mr. COX. If that station in that area is a UHF station, and you are able to provide your service without conversion of the viewer's set, do you not possibly impede his attainment of conversion in that area?

Mr. MALARKEY. No, sir. That has not been the case. I can give you a specific instance of a UHF-TV station that today depends primarily upon the coverage given to it, or provided it, through 22 or 25 community antenna systems in the area. If it weren't for those community TV systems, the president of the station tells me that his coverage wouldn't be nearly as great as it is.

Mr. COX. Could you tell us what station that is?

Mr. MALARKEY. That is WHUM-TV, channel 61, in Reading, Pa.

Mr. COX. I take it none of your systems provide any locally originated programming at all?

Mr. MALARKEY. There have been systems who have attempted to originate local programs—not because of the commercial value, but because they were endeavoring to supplement the lone signal, or the signals, that they were able to receive at their mountain, and give their customers some additional entertainment on the third channel in the system.

Mr. COX. In connection with that, do they sell advertising or derive revenues in addition to the monthly charges?

Mr. MALARKEY. Mr. Smith can correct me in this statement if I am wrong, but I understand that of the 2 or 3 operators who have attempted closed-circuit operations on a commercial basis, they have stopped operations.

Mr. SMITH. There are just a limited few still in operation, and going specifically to your question, 1 or 2 of them have attempted to sell commercials for their closed circuit operation. I don't want anybody to get confused on this point, however: They do not sell commercials and interrupt, or in any way alter, the broadcast signals that they receive and insert commercials on those channels. And my understanding also is that the few who have attempted to sell local spots to support their own third channel, or second channel, whatever it may be, haven't found it to be a too successful venture; and most of them do it just for the purpose of making—when I say "most", the few who do—do it for the purpose of making the basic antenna service more attractive to the community and more serviceable to the community.

Senator BIBLE. Mr. Malarkey, just a couple of questions occurred to me. I am wondering how long a contract a subscriber signs when he asks for the community installations in his home.

Mr. MALARKEY. Senator—

Senator BIBLE. A year, or 2 or 3 years?

Mr. MALARKEY. It varies from system to system. There are some contracts that are cancelable by either party on 30 or 60 days' notice.

There are contracts that provide guaranteed service for a year, and there are some for 2 years. There are 1 or 2 that I know of for 3 years.

Senator BIBLE. And what type of enforcement problems do you run into in cancellation of contracts? If they don't pay the bill, you cut off the service—is that correct?

Mr. MALARKEY. Yes, sir.

Senator BIBLE. And you say you represent 200 operating companies. Are they all in active operation today?

Mr. MALARKEY. Yes, sir, they are all in active operation today.

Senator BIBLE. What has been their pattern of success? I mean, are they successful? The reason I ask the question is this: We have a community antenna in Reno. It is competitive, of course, with one live station there, and I have heard rumblings constantly that the community antenna system is on shaky ground, or that they are about to go out of business. I don't know how accurate that is. I am wondering what your experience has been. When you named the highest cost for installation, as well as the highest monthly cost, I think you are referring to my hometown, because I think that is true of Reno, Nev. I am wondering what the experience has been.

Mr. MALARKEY. It is a coincidence that you happened to mention Reno. Reno is one of the very few unsuccessful systems in operation in the country today.

Senator BIBLE. It is a coincidence I happen to be the chairman when it comes up.

Mr. MALARKEY. There are very, very few community systems who haven't been able to deliver a needed service and have had to, for one reason or another, cease and desist operation. They have all continued to grow, even in those areas where there are 2 or 3 signals available from the local stations.

Senator BIBLE. That is why I was asking earlier as to how many homes you had to have to sustain a community antenna. It may be the cost of bringing this from the high Sierra Mountains down to Reno. It may be due to the microwave.

Mr. MALARKEY. Yes, sir.

Senator BIBLE. Reno is, today, a community of 50,000 people. So it baffles me that they are having such great difficulties in making it financially sound.

Mr. MALARKEY. Well, if I might express a personal opinion, the Reno problem could be solved if microwave facilities were available to bring into Mountain Slide the signals from the originating stations, so that they could be microwaved down into the community. The problem in Reno has been one of poor original signal receiving up in Mountain Slide. I have been up there.

Mr. Cox. Could you tell us what percentage of these community antenna systems are cooperative and what percentage is commercial, roughly?

Mr. MALARKEY. We don't have figures to support what I am going to say, but it is my impression that the greater majority of the systems in operation are commercial systems.

Mr. Cox. All of the larger systems?

Mr. MALARKEY. All of the larger systems are commercially operated systems.

Senator BIBLE. I don't know that I got a direct answer to my question. My understanding is that the 200 operating companies that are in existence today are original companies and have stayed in existence throughout the period of development of the industry.

Mr. MALARKEY. There are 200 operating companies which are members of our association. There are 450 or 465 operating companies.

Senator BIBLE. I had reference to the 200 operating companies of which your association was the representative.

Mr. MALARKEY. You are asking whether they are all operating companies today?

Senator BIBLE. Yes, and are they in existence today.

Mr. SMITH. Yes, sir.

Mr. MALARKEY. Yes, sir; 195 or 196 of them are companies that are in operation today. The other 3 or 4 companies are companies who are just developing their antenna and building their transmission lines and are in the process of going into the business.

Senator BIBLE. So your statement is that where you do start community antenna systems, that with very, very few exceptions, they stay in business; is that a correct statement?

Mr. MALARKEY. That has been our experience.

Senator BIBLE. There are just a few isolated instances where they have had financial reverses?

Mr. MALARKEY. Yes, sir.

Mr. COX. Have any of them actually ceased service, do you know?

Mr. MALARKEY. One that I know of, in Maine.

Senator BIBLE. I think that is fine, Mr. Malarkey.

It is my understanding that we have one more witness and that he has asked that he be given just a little more additional time to put his statement in final form. With that in mind we will stand in recess until 2:15.

(Whereupon, at 12:07 p. m., a recess was taken to 2:15 p. m. of the same day.)

AFTERNOON SESSION

Present: Senators Magnuson (presiding), Duff, Thurmond.

The CHAIRMAN. The committee will be in order.

Our first witness this afternoon is Mr. Milton J. Shapp, president of Jerrold Electronics Corp.

You may proceed, Mr. Shapp.

STATEMENT OF MILTON SHAPP, PRESIDENT OF JERROLD ELECTRONICS CORP., PHILADELPHIA, PA.

Mr. SHAPP. Mr. Chairman, members of the committee, I am Milton J. Shapp, president of Jerrold Electronics Corp., of Philadelphia, Pa. I am here this afternoon to outline the details of a new plan that will speed the extension of television service to every town of over 1,000 population in the United States. If the Federal Communications Commission approves a proposal that we will file with them on Monday, there is no technical nor economic reason why multichannel television service cannot be made available to every such community in the United States before the end of this calendar year.

Jerrold is prepared today to furnish multichannel service to any of the communities in the Northwest States presently served by unauthorized reradiators. We have done sufficient engineering already to quote specific prices for providing three-channel service to Bridgeport and Quincy, Wash., with construction to start immediately. We are prepared to undertake projects for bringing television to any of the almost 600 communities shown on this map [indicating]—communities that today are virtually devoid of television reception. Over 5 million Americans live in television-starved areas—2 million of them in these 600 towns.

Gentlemen, the plan I shall present to you this afternoon is not nebulous. It is quite specific. We are prepared to quote prices on equipment already in production and to undertake installation of systems anywhere within the United States. This new Jerrold plan (that has been dubbed by our engineers as the "Peashooter") is in our opinion the real answer to providing multichannel television coverage to all of the present blacked-out areas in the United States; television of a high order of quality and consistency at a price well within the reach of the citizens who live in these communities.

First, let me give you a brief background of the Jerrold organization, and a brief description of our experience in the field of bringing television to remote areas. Ever since our company was founded in 1948, our primary business has been to make television reception possible in fringe and isolated areas of the country. In 1948 and 1949, we produced television boosters for individual set owners. In 1950, we pioneered the development of community antenna systems. In the past 5 years, our company has equipped more than 300 cities and towns throughout the United States with community antenna systems. We are the leading manufacturer in the community antenna industry today—an industry that serves approximately 1,500,000 citizens with television reception.

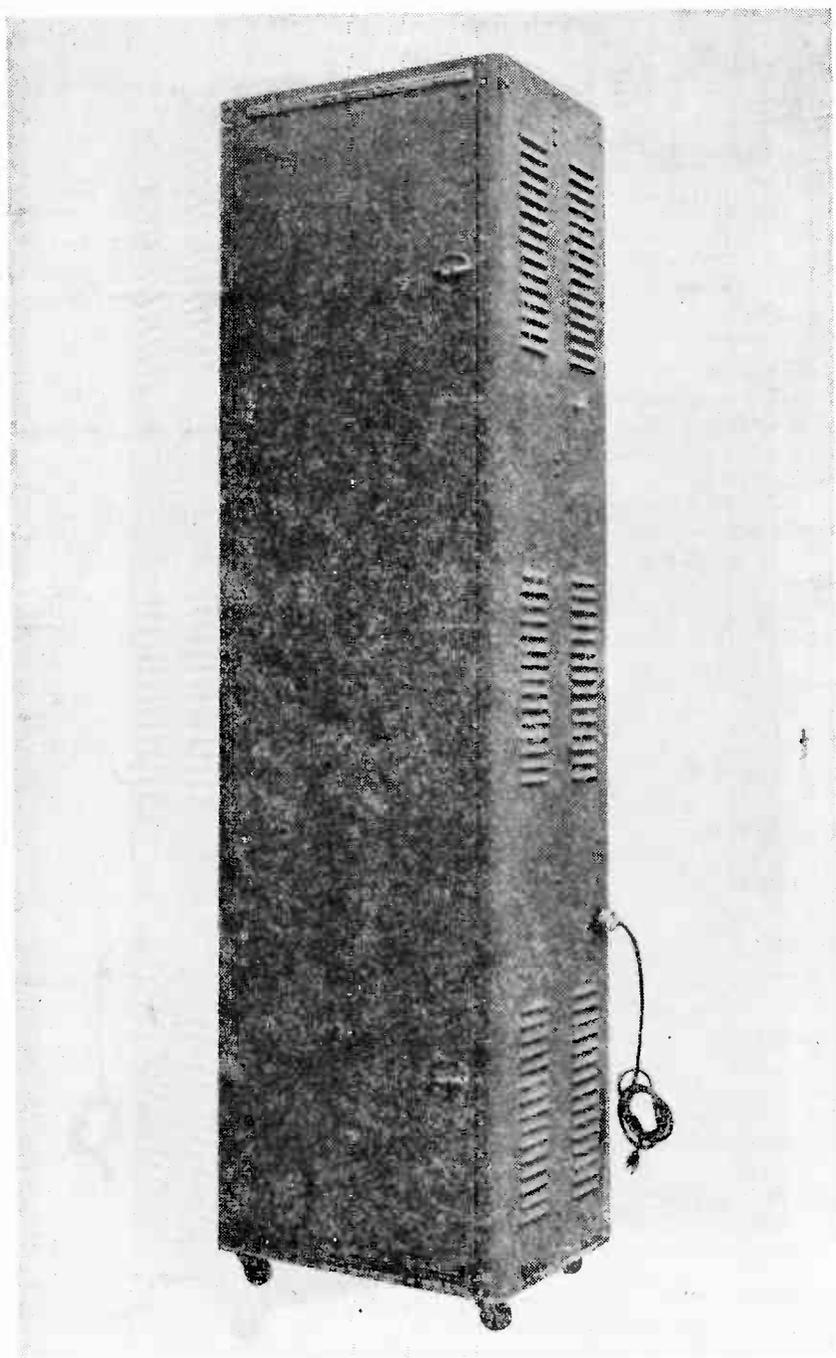
During the past 3 years, we have designed, manufactured, and installed a fairly substantial number of satellites and translators in the Latin and South American countries. Our engineers are at this very moment completing the installation of six translators in Venezuela.

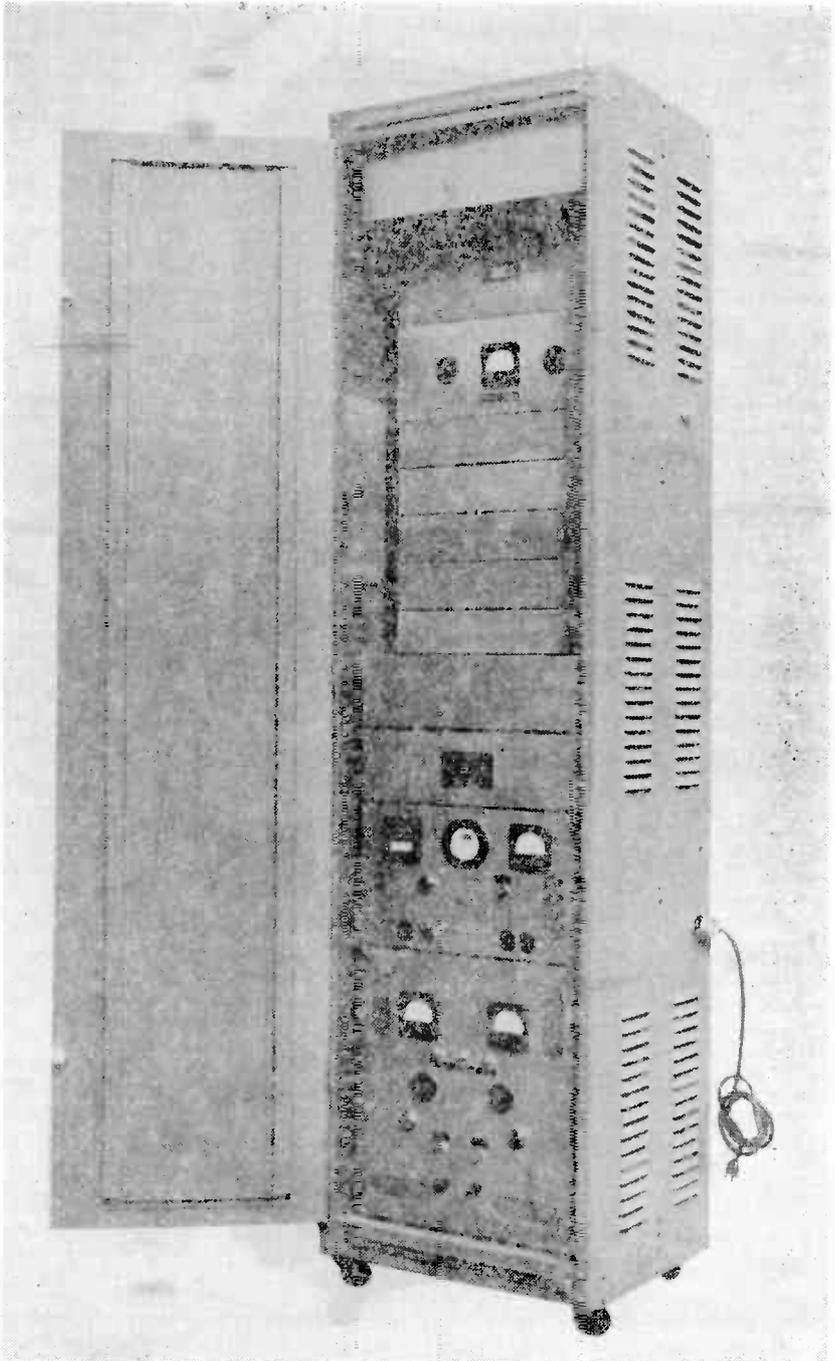
I have here, as exhibits for the committee, some photographs¹ of the translator equipment we are installing in Venezuela right now. I cite this to show that our basic work, Senator, is in the field of bringing television to remote areas by whatever means is the most practical, by community systems, by satellite, or whatever means is the most economic and technically the most feasible for the given area.

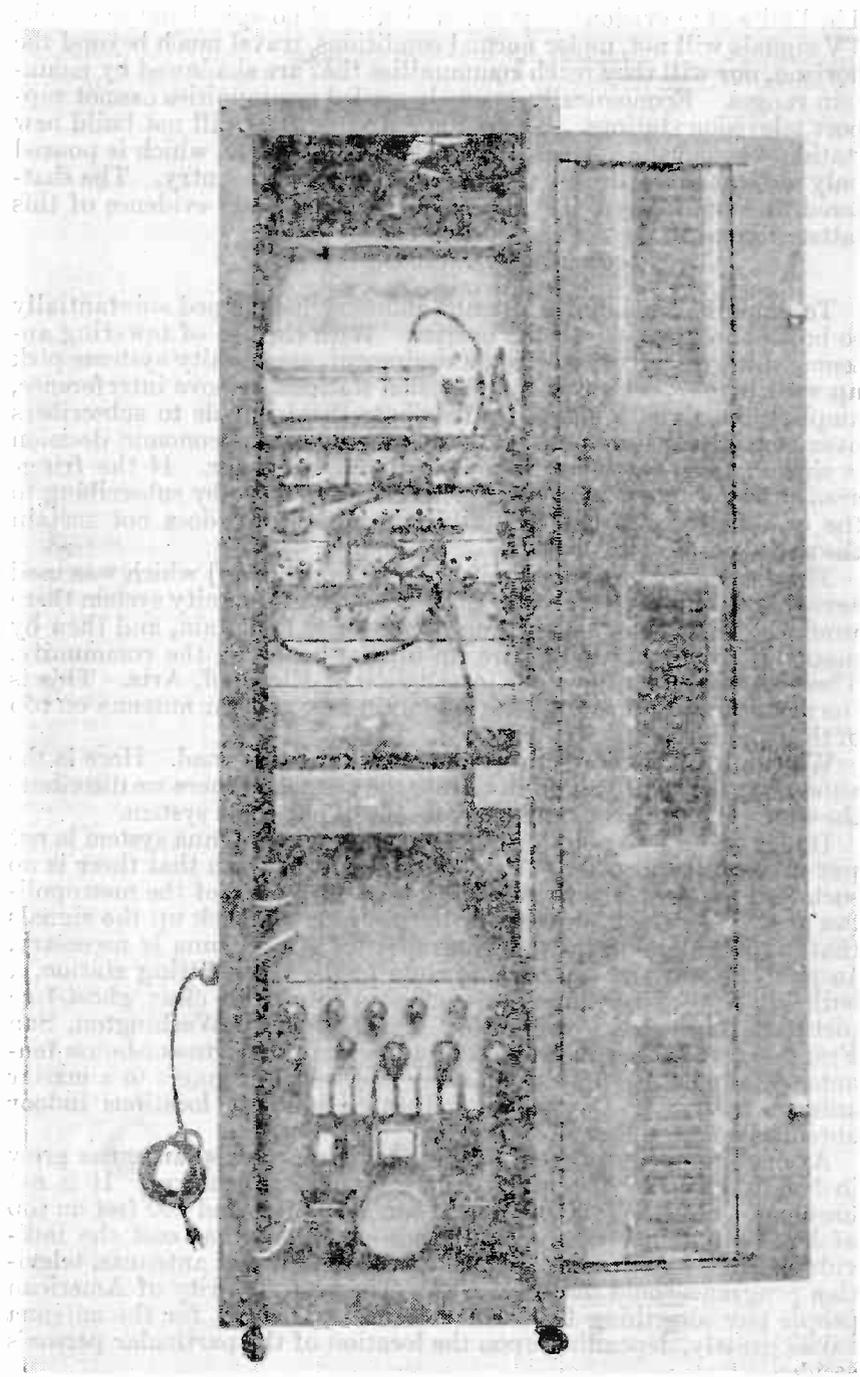
Our company has probably done more research, study, and development on the problems of extending television coverage to remote fringe areas than any other single company in the United States. The "Peashooter" plan which we have developed for extending television coverage to all communities in the United States is based upon the experience that our organization has gained in this highly specialized industry.

To understand the nature of the Jerrold proposals, it is necessary first to understand the technical and economic factors that have prevented the spread of television into the small isolated and fringe areas.

¹ The photographs referred to are reproduced on the following pages.







The limits of television reception are both technological and economic. TV signals will not, under normal conditions, travel much beyond the horizon, nor will they reach communities that are shadowed by mountain ranges. Economically, sparsely settled communities cannot support television stations. Television entrepreneurs will not build new stations beyond the horizon of the advertising dollar, which is poured only into the more densely populated areas of the country. The shattered illusion of the UHF allocation program bears evidence of this latter statement.

COMMUNITY ANTENNA SYSTEMS

To date, the community antenna industry has helped substantially to break through this double barrier. With the aid of towering antennas and specialized electronic equipment, community systems pick up weak signals broadcast by television stations, remove interference, amplify the signals, and then distribute these signals to subscribers over coaxial cable systems. By this method, the economic decision is shifted from the advertiser to the final consumer. If the fringe area citizen wants television, it is his choice to do so by subscribing to the community system. The advertiser generally does not sustain the added costs.

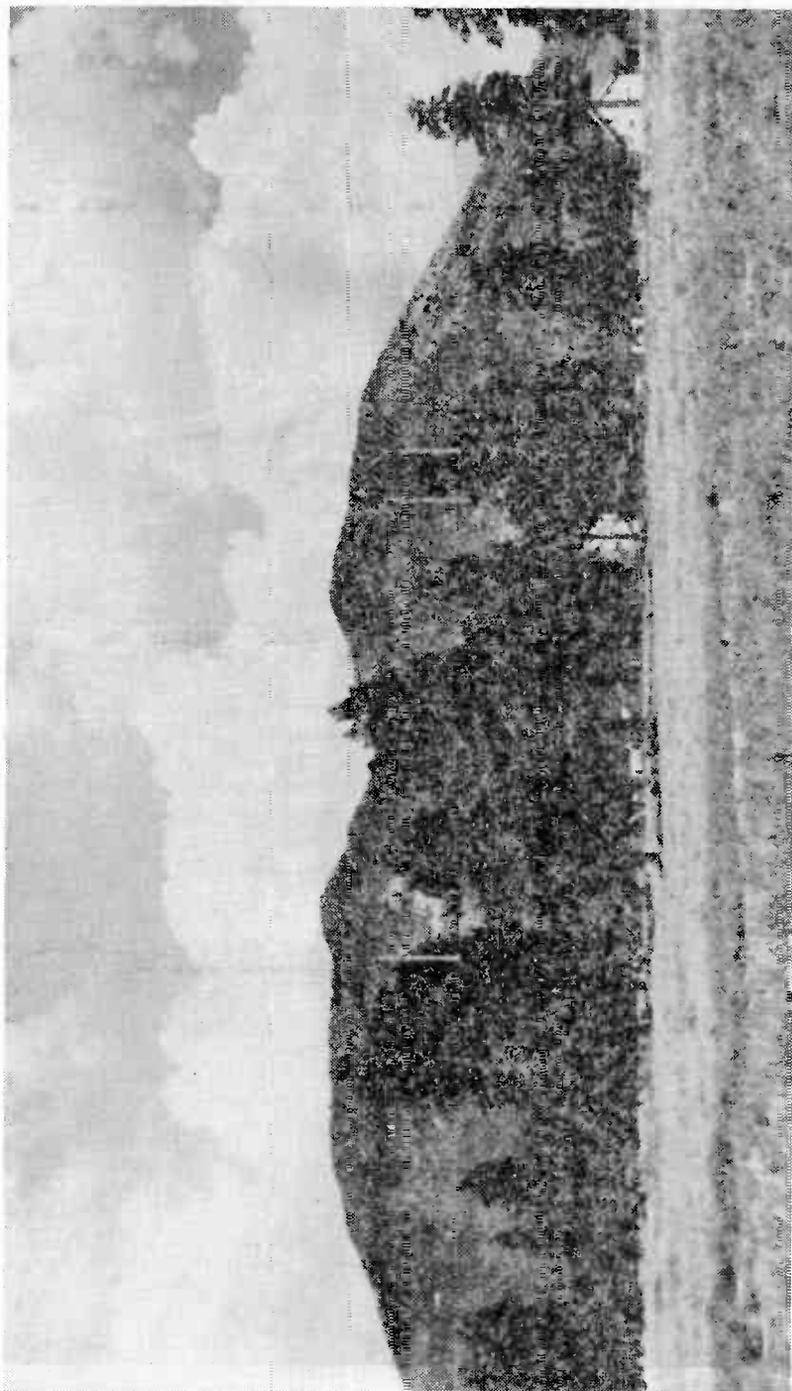
This is a model of a community system [indicating] which was used here this morning. Generally in the average community system there would be an antenna site on top of a nearby mountain, and then by means of cable we would wire up all the homes in the community. These photographs show our installation at Flagstaff, Ariz. This is the mountain at Flagstaff—the mountain top, and our antenna on top of the mountain.

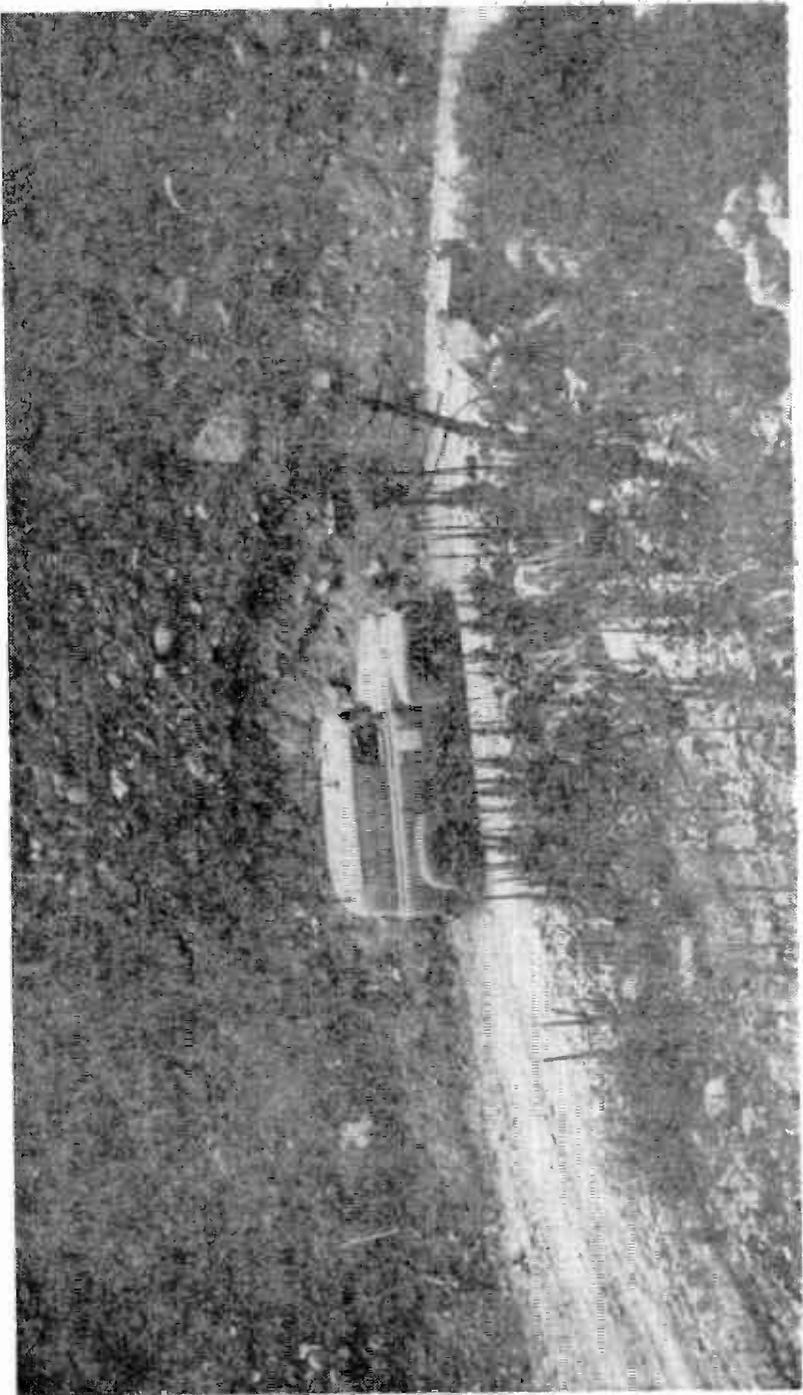
We run by cable down this mountain along this road. Here is the antenna at the top. It goes down into the town, and there we distribute the signals into the community by means of our cable system.

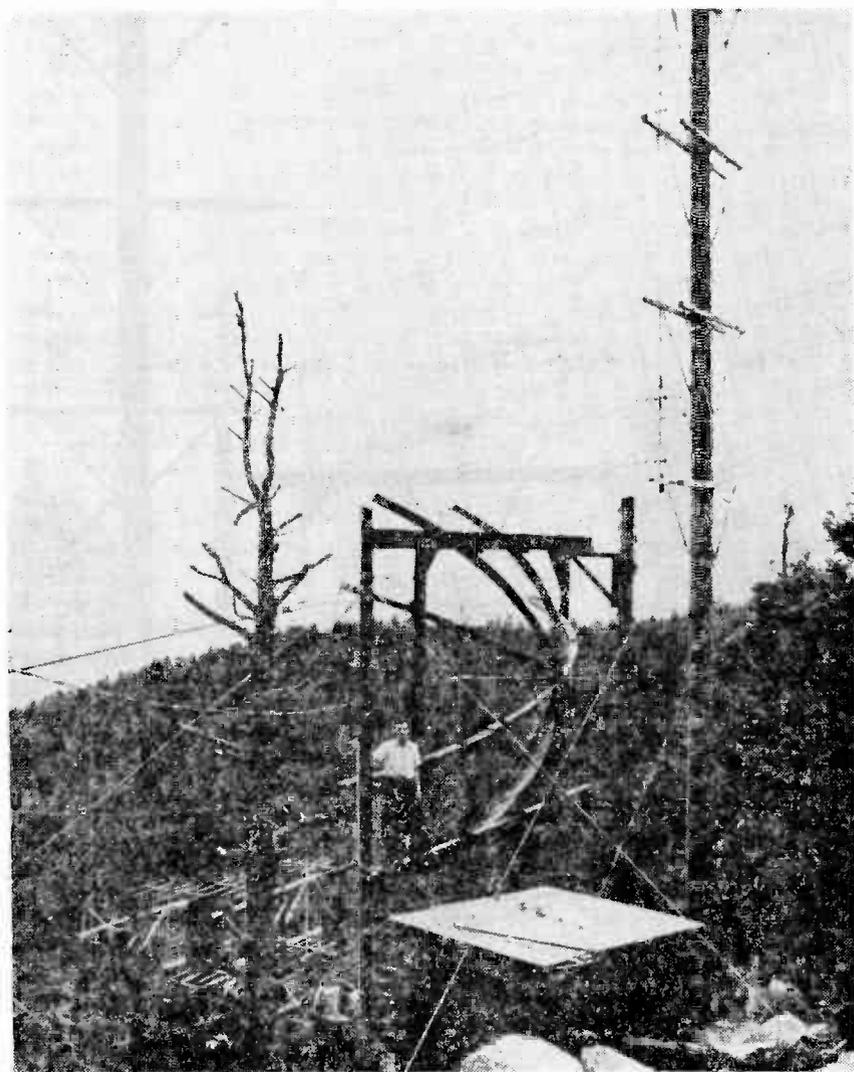
It is important to point out that a community antenna system is not pay-as-you-see television. It is an unfortunate truth that there is no such thing as free television reception, even in most of the metropolitan areas. A television receiver by itself cannot pick up the signals that are broadcast from the transmitters. An antenna is necessary. In many homes and apartments close to the transmitting station, a built-in or rabbit-ear antenna is sufficient to provide clear, ghost-free pictures. However, even in New York, Chicago, Washington, San Francisco, and other metropolitan areas, many apartment-house tenants spend \$50 to \$75 (plus monthly charges) to connect to a master antenna system in the building, because in these locations indoor antennas do not suffice.

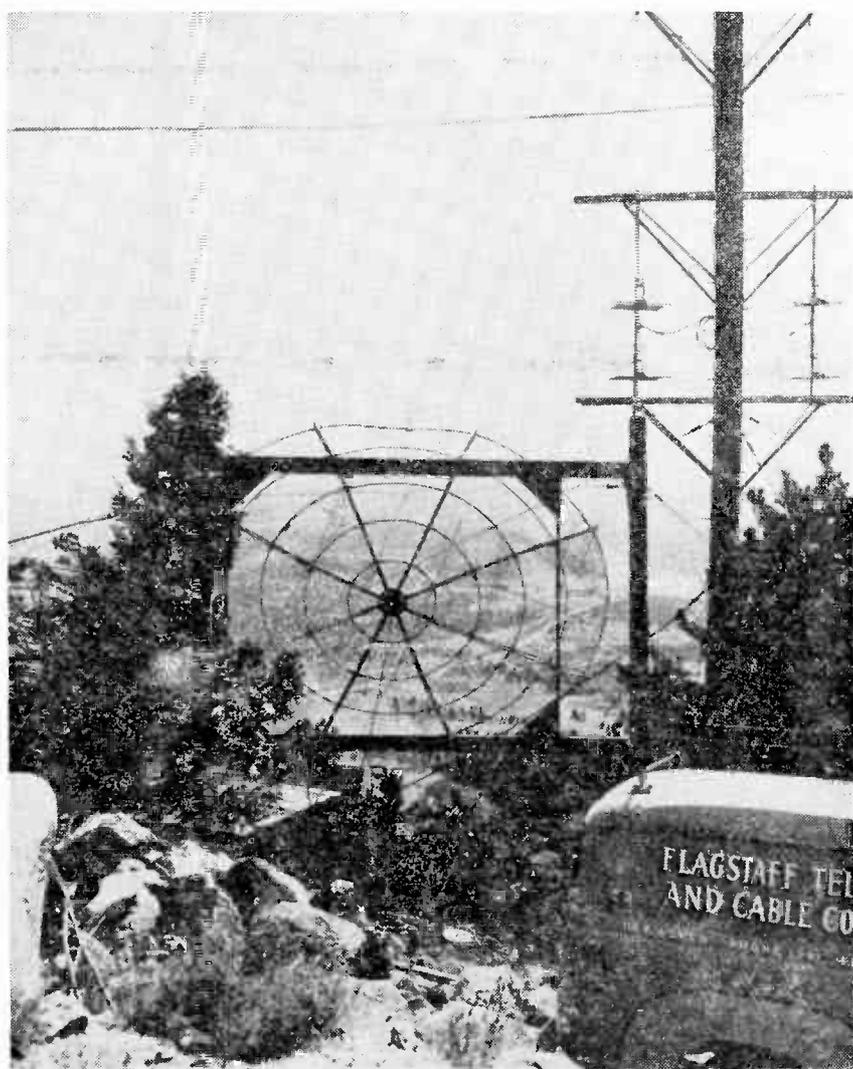
As one travels away from the transmitters, rooftop antennas grow in height with the distance from the transmitting tower. It is not uncommon at all to find antenna towers of 50 feet and 100 feet on top of homes in fringe-area communities—antennas that cost the individuals from \$100 to \$300. Without these high-cost antennas, television programs could not be viewed. The vast majority of American people pay something for their antennas. The cost for the antenna varies greatly, depending upon the location of the particular person's residence.

(The photos referred to are as follows:)

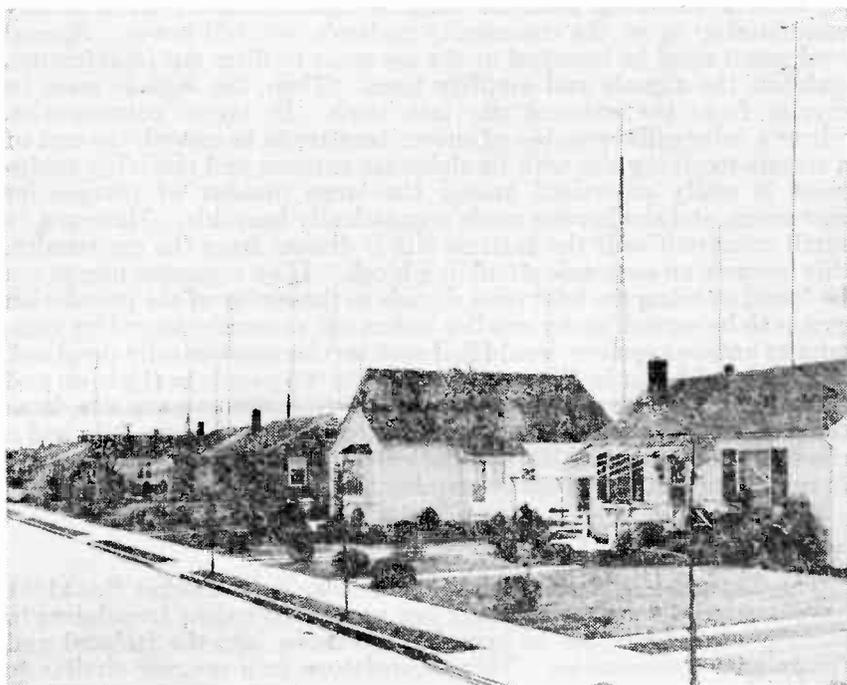








I have here some photographs of a fringe area community that show the antennas in some of these towns where the people have paid from \$75 to \$150 or \$300 for their individual towers. I might add that



in that particular town—which is Ventnor, N. J.—we have a community antenna system, and people are taking these towers down to connect to the system rather than have an individual tower in their home. They get better pictures and the cost is lower.

A community antenna is, as its name implies, an antenna that is shared by a community. Instead of everybody in town putting up their own towers of 300 feet, 400 feet or 500 feet, as would be necessary in the flatlands of Texas or Mississippi to receive programs, or instead of everyone putting an antenna on top of the nearest mountain and running his own lead-in from that site to his receiver, 1 giant tower or 1 antenna is erected, with resultant economies.

Each person who desires to receive television then pays a connection charge and a monthly maintenance fee to the owner or operator of this community antenna. In this manner, the consumer attains far better television reception at a lower cost than he would obtain in that community by installing his own antenna. In most cases to date, the installation of community antenna systems has been privately financed and the companies are operated to produce a profit. In a number of cases, the systems are cooperatively owned, and since the capital expenditure and risk is shared by the viewers, and since these cooperatives are normally operated on a no-profit basis, the connection and monthly rates may be somewhat lower.

As I shall show later, these rates can be as low as \$74 a connection and \$2 a month for many of the cities in the Northwest area.

However, community systems, too, face an economic barrier. Regardless of the density of population or the number of potential subscribers, a receiving antenna must be erected, either on a nearby mountaintop or on the community system's own tall tower. Special equipment must be installed at the antennas to filter out interference, stabilize the signals and amplify them. Then, the signals must be carrier from the antenna site into town. In larger communities, where a substantial number of subscribers are to be served, the cost of a remote receiving site with its elaborate antenna and receiving equipment is easily amortized among the large number of prospective customers, and the burden made economically bearable. However, in small communities if the antenna site is distant from the community, this becomes an economic stumbling block. If an economic means can be found to bring the television signals to the center of the population group to be served, many smaller towns not presently served by community antenna systems would find such service economically practical.

I might add that in Flagstaff we have 14,000 people in the town and they could afford to run this cable 7 miles from the antenna site down the mountain to the town to serve that population. If we only had a community of 3,000 or 4,000 population there, it would be uneconomical to run a community system by running the cable off the mountain.

TRANSLATORS

The Federal Communications Commission in its Docket No. 11611 has proposed the use of relatively low power (10 watts) translators to accomplish the purpose of bringing television into the isolated and fringe area communities. These translators, in a manner similar to the head-ends of community systems, are to be installed at locations where broadcast television signals can be received. Instead of bring-

ing these signals to town and distributing them through the community by means of cable, it is proposed that the translator simply rebroadcast the programs picked up, utilizing the now unused top 14 UHF frequencies for this purpose.

Whereas the translator will find application in some communities, it is not a cure-all for the small community problem. Its use has economic and technical limitations. The proposed translator has all the costs usually associated with the receiving site or head-end equipment for a community system. These costs are determined by the nature of the signal reception and have little to do with what is done with the signal thereafter. Therefore, it is important to understand that the UHF transmitter portion of the proposed translator merely replaces the transportation system necessary to get the television signals from the receiving site to the population area to be served.

Most descriptions of the proposed translator system assume that the cost of the system ends at this point. However, this is not the case. The individual set owner is still faced with the cost of installing and maintaining a good UHF antenna and a converter for his own television receiver. Of necessity, the total cost of installation and operation of most translators must be supported by their viewers.

Arranging the economic support of the proposed translators is by no means as straightforward as in the case of a wired community system. In a cable system only those who subscribe to the service and thus pay their share of the cost are able to obtain television reception. With the translator, a signal is broadcast toward a population area and anyone who provides himself with the proper UHF receiving equipment can receive the signals. In many of the communities in the northwest section of the United States, where unauthorized reradiators have been in operation, various arrangements have been made to divide the cost of operating the transmitter equipment among the viewers. These arrangements have taken the form of some civic action, but there are many accounts in the newspapers to indicate the difficulties of obtaining a truly cooperative program. Unauthorized reradiators have had to be shut down by their operators for periods of time in order to "pass the collection hat" around the community in order to obtain operating funds. There are within any group, those individuals who are willing to "let George pay it." The financial problems of installing and operating a translator service, with costs much higher than the unauthorized reradiators, may well prove to be a very difficult community problem to resolve.

Technically, the translators may provide good service in some types of communities. Bridgeport, Wash., is typical of a community which, in our opinion, can be best served by this means. The community is close to the signal receiving point. I might add that in Bridgeport there are some 270 to 280 homes spread out over about 8 miles of the city, so that the density is slightly over 30 homes per mile, which makes cabling in the town rather expensive per residence unit. That is why we say that Bridgeport is typical of a community which can best be served by translators.

The CHAIRMAN. You have an unusual situation in Bridgeport, because we are building a huge dam there and when the dam is finished then there is going to be a rearrangement of their economic factors, which might then make it good for cabling.

Mr. SHAPP. Yes.

However, because of the very nature of UHF frequencies, there will be many communities that cannot be covered properly by the proposed translators. People living behind hills or large buildings within the community may find themselves shadowed and unable to receive the translator signals. Furthermore, because of the low power transmitted and because of the relative inefficiency of UHF tuners and converters at the high frequency—top 14 channels—of the UHF band, the area of coverage for reliable reception will be limited. Further, due to the more rapid falling in efficiency of tubes at the higher frequencies, the service cost of maintaining snow-free reception at these frequencies will be higher than normally experienced in other UHF areas.

From an economic standpoint, it appears that the cost of installing a UHF antenna and converter to receive signals from a translator will be no less than \$70 per home. In many cases, because of low signals or because of terrain features, this cost may be higher. In addition, each individual will be asked to bear his share of the cost of the translator itself.

As in the case of the unauthorized booster, in my opinion it is doubtful that any translator equipment will be placed on the market in the near future that will sell for much less than \$2,000 a channel. This price does not include the engineering surveys, nor does it include the cost of installation. It does not include the cost for many specialized filters or other equipment that may be necessary in many areas in order to obtain clear, interference-free pictures. It does not include housing shelter for the equipment, nor does it include the cost for running power up to the proposed transmitter site. Based upon the experience of our company in installing front-end equipment at antenna sites in over 300 community antenna systems, it is doubtful if any translators can be installed to provide 3 channels into a community—the minimum service furnished by most community antenna systems today—for less than \$10,000. In many cases the cost will be greater.

I might add that in the case of some of the northwest cities this can be reduced because they have had power run up to the antenna sites; they do have shacks and some buildings, so that equipment can be utilized for installation of translators.

When the \$70 cost per individual receiver is added to the share of the cost for the installation of translators that must be borne by each subscriber, it becomes fairly obvious that the translator proposal in itself will not bring "free," or even low cost, TV reception to small communities.

I just point out at this time that these communities, in that respect then, are no different than remote fringe area communities in other sections of the country who have to install their own big antennas, and so forth.

THE JERROLD PEASHOOTER PLAN

However, there are features of the proposed translators which, if combined with community antenna systems, would offer a very practical solution to the problem of bringing television to the majority of small, isolated communities on a more economical basis. As stated previously, the main barrier to community antenna systems is the cost of bringing the signals from the mountain top to the town by means of

cable. Further, as stated above, the chief advantage of the translator is that it offers a rather economical method of conveying the signals from the mountain top to the community.

Jerrold proposes that the Federal Communications Commission consider a combination of the translator service and a modified type of wired community service as a means of bringing television to the fringe area communities. Jerrold is filing such a proposal with the Federal Communications Commission, and we have asked for an experimental license to test and demonstrate immediately the feasibility of this proposal in Ellensburg, Wash.

The CHAIRMAN. What authority does the FCC have to give you to do this?

Mr. SHAPP. We are asking to use the top 14 UHF frequencies, such as is proposed in their translator service, for this point-to-point type of service from our mountain top into town, with these signals.

The CHAIRMAN. Through a cable?

Mr. SHAPP. No; through the air.

The CHAIRMAN. Why do you have to ask the Communications Commission for that authority?

Mr. SHAPP. Because these frequencies have been assigned, at the present time, for broadcast purposes, and we do not have the authority to just go ahead and use those frequencies.

The CHAIRMAN. So what you are asking, then, is to use frequencies in this particular case, say in Ellensburg, that are not being used anyway?

Mr. SHAPP. That is correct, sir. Back here by the airport [indicating on model] we have a horn up on top of the mountain. Here is our receiving horn in Ellensburg. We would propose that the antenna site beam the signal through the air right down here.

The CHAIRMAN. That would use only one frequency?

Mr. SHAPP. We would have three channels.

The CHAIRMAN. Three channels coming off there down here?

Mr. SHAPP. Yes.

The CHAIRMAN. They would be UHF?

Mr. SHAPP. Yes, sir; say, channel 72, 74 and 76.

The CHAIRMAN. What about the sets?

Mr. SHAPP. We would then have one converter at our horn location in town, convert to the low band VHF frequencies of 2, 4, and 6, and distribute by means of cable throughout the city.

The CHAIRMAN. In other words, you do the translating into the V?

Mr. SHAPP. That is right, 1 converter, 1 big antenna, which gives us better reception.

In accordance with our plan, the desired television signals at a receiving site would be picked up, filtered, stabilized, amplified, and converted in much the same way as necessary under the proposed translator service. However, by means of a highly directional antenna system—which our engineers have dubbed the “peashooter”—the UHF signals will be beamed directly to the center of the population group to be served. Maximum transmitter power of less than 0.1 watt is required for this service. At the central point in the community, the signals would be received by another high gain, highly directional antenna, and then converted to low-band VHF frequencies, channels 2 through 6. These signals will then be fed into a wired distribution system to serve the population group.

The CHAIRMAN. Let me understand this—which I don't. With the antenna on top of the mountain, you are picking up V signals; aren't you?

Mr. SHAPP. That is correct.

The CHAIRMAN. You are translating them into U signals?

Mr. SHAPP. That is right.

The CHAIRMAN. Then you are reconverting them, or reversing it back to V?

Mr. SHAPP. We are beaming them into the town as UHF, picking them up, reversing them back into V for distribution by cable.

The CHAIRMAN. The V station that originates the signal comes into the home exactly as it originated the signal, but you convert it on the way back?

Mr. SHAPP. That is right.

Mr. COX. Or on another V channel?

Mr. SHAPP. That is right.

Mr. COX. It makes no difference which channel is being used.

The CHAIRMAN. Supposing you had a town that had all U sets, or all-channel sets. You wouldn't have to do that; would you?

Mr. SHAPP. Actually anybody in Ellensburg, or any other city where we put the system, who wants to put up their own UHF antenna and pick up the signals can do so if they want. It is our opinion, as I shall go forward here to show, that the cost of doing it by cable, with 1 converter and 1 big antenna, is less than everybody buying their own UHF antenna and UHF converter.

Mr. COX. Would that signal be available to everybody in the community, or would they have to be pretty much in the direct line of sight between the two horns?

Mr. SHAPP. It is a line-of-sight proposition. At 12 miles, which happens to be the distance in Ellensburg from antenna to town, with the antennas we will use, it will be about a mile and a half across. We cannot pinpoint it like a searchlight.

The CHAIRMAN. I can buy an all-channel set and pick you up anyway?

Mr. SHAPP. That is correct.

Mr. COX. Within a certain range.

The CHAIRMAN. I would put up my own antenna.

Mr. SHAPP. I think you will find—as I will attempt to prove here—the cost and the performance is superior.

The CHAIRMAN. Why did you pick Ellensburg?

Mr. SHAPP. It so happens we have a community antenna system in Ellensburg. We have a 12-mile run that has been very costly to maintain, and also we can go to work immediately to run this test in Ellensburg. If any other city is desirous of the test, we will be glad to do it there.

Technically, this combination peashooter-cable system offers many advantages over either the straight community system or a straight translator service. By this method, only 1 UHF antenna and only 1 UHF converter are needed to serve the entire community, as contrasted with the current proposal requiring each home to have an antenna and converter. This antenna will be extremely high gain—on the order of 25 to 30 decibels—that means it is picking up signals on the order of a hundred times better than the normal UHF antenna will do it—and will feed into a relatively low-noise input UHF con-

verter of a crystal-controlled type. The resultant signal will be far superior than would normally be received at these frequencies of an individual antenna and individual home converter.

The CHAIRMAN. Let's get this into the record. You pick it up there in the center of town, and you put your cables around. Now suppose I am living in Ellensburg, what are you going to charge me to get this cable?

Mr. SHAPP. At the present time the rate in Ellensburg is \$125 and \$3.50 a month.

The CHAIRMAN. That is for installation?

Mr. SHAPP. \$125 for installation, \$3.50 a month for the service.

The CHAIRMAN. Then, of course, your suggestion is that if I wanted to pick up those signals anyway, I would have to spend almost that much for my own antenna?

Mr. SHAPP. In Ellensburg you would probably have to spend about \$100 to \$110 to pick up your own signal.

The CHAIRMAN. So I am getting a little better signal—I think that is your contention?

Mr. SHAPP. That is right.

The CHAIRMAN. For approximately the same price?

Mr. SHAPP. That is right.

The CHAIRMAN. Then you have a service unit that services the place?

Mr. SHAPP. We have a company—like a small telephone company—in Ellensburg that takes care of maintenance. I might add for the record, too, sir, that the installation—

The CHAIRMAN. Where do you put these cables—underground?

Mr. SHAPP. No; on the telephone poles. We have contracts with the telephone and power companies for attaching them to their poles.

The CHAIRMAN. Just like it is here [indicating the model]?

Mr. SHAPP. That is right.

The CHAIRMAN. What would you do in Washington, where you couldn't have telephone poles?

Mr. SHAPP. Washington, D. C.?

The CHAIRMAN. Yes; right here.

Mr. SHAPP. It isn't necessary in Washington.

The CHAIRMAN. I am a great believer in abolishing telephone poles and putting everything underground.

Mr. SHAPP. They use a lot of fir, sir. [Laughter.]

The CHAIRMAN. No; they don't use fir.

Mr. SHAPP. I started to say that we have a lot of economies to affect in a community system this way, too. In the normal community system, where we come in from the edge of town, we come in from one side and then wire through the town. We have a lot of amplifiers in cascade, including those off the mountain.

The CHAIRMAN. All you are trying to say, in this whole thing, is that you think in a community similar to Ellensburg or Flagstaff, or wherever we have these peculiar terrain problems—which is mainly out in the West, although there are some places in the East, too—that you are able, through this system that you are describing, to do a better job as economically as if the individual resident tried to do it himself?

Mr. SHAPP. That is one thing, sir. In the mountainous terrain; that is the point I intend to make. However, in the flat areas, which are covered by all those pins throughout the area [indicating large

map], the translator service will not provide the coverage that is proposed, and the only way that you are going to get low-cost television into all of those areas in the United States—from the Dakotas down through Texas, down in the South, and up the eastern coast—is by means of using these UHF frequencies at these places, peashooting them in, and wiring the town.

The CHAIRMAN. If you do that, maybe the individual is going to make a bigger initial investment, but in the long run, he will get better television and service—and you will sell the equipment?

Mr. SHAPP. We will sell the equipment.

The CHAIRMAN. You think you have a better system?

Mr. SHAPP. Our salesman comes into a town with three books in his briefcase and asks them which they want.

The CHAIRMAN. As I understand it, it has worked out very well in some communities?

Mr. SHAPP. Yes.

The CHAIRMAN. Now you want to go ahead in a town like Ellensburg, experimentally, and try out the shifting of the V to the U and back to the V in a community about the size of Ellensburg, which would be about 20,000 people?

Mr. SHAPP. No, it is about 12,000.

The CHAIRMAN. Your customers would number about 20,000 altogether, including surrounding areas?

Mr. SHAPP. That is right. We are prepared to go into Quincy at this time with such a system also. I have the costs worked out for Quincy, to show the relative cost of this type of service as against the translator service.

Mr. Cox. How big is Quincy?

Mr. SHAPP. About 2,500.

The CHAIRMAN. Quincy grows so fast every week we can't keep track of it. [Laughter.]

Mr. SHAPP. We had trouble getting the population figures. This is a pictorial of what is described [referring to a large chart]. Here are the figures on Quincy that compare the cost of bringing television—three channels of television—by means of this peashooter-cable deal, as against just a translator.

The CHAIRMAN. What stations would you pick up in Quincy—those in Spokane?

Mr. SHAPP. The Spokane stations.

The CHAIRMAN. In Ellensburg, you pick up Seattle?

Mr. SHAPP. Two Spokane and one Seattle.

The CHAIRMAN. Which one out of Seattle?

Mr. SHAPP. I think it is channel 5.

The CHAIRMAN. KING.

Mr. SHAPP. Yes.

The CHAIRMAN. Why could you pick up KING and not pick up the rest of them?

Mr. SHAPP. There is a duplication of programs on channel 4 from Spokane and channel 4 from Seattle, and also we have a cochannel problem with the two systems and the stronger signal is Spokane.

The CHAIRMAN. It isn't because KING has a difficult signal—it is because of the programing?

Mr. SHAPP. Yes. We give NBC, CBS, and ABC programing in this manner. Here, on a cooperative basis—we have already contacted.

one of the leading banks out in Seattle, who is willing to finance, on a cooperative basis, the installation of cable systems in conjunction with this peashooter plan, whereby the people in a town form a cooperative, and put up whatever may be the cost per subscriber, say, \$75 a person. They put up \$25, with \$50 advanced to the co-op by the bank for each person and paid back on a regular bank-loan basis. We have the details of the exact forms and everything else in a rough-draft form with this bank now. This plan is entirely bankable on a cooperative basis. That is the reason I said before that it is entirely likely the initial cost, on a cooperative basis, can be even under what it would cost each person to buy the converter and UHF antenna.

The CHAIRMAN. You are giving Ellensburg two Spokane stations and a Seattle station, which provide mainly national network programs?

Mr. SHAPP. That is correct.

The CHAIRMAN. What if somebody wanted to start a local station in Ellensburg?

Mr. SHAPP. Fine.

The CHAIRMAN. Does your system interfere? I am just asking this engineeringwise. That wouldn't interfere with your thinking at all?

Mr. SHAPP. Not at all.

The CHAIRMAN. How could I have a set in Ellensburg to get the local station?

Mr. SHAPP. We could put the local station on the system, as we do in many cases—make it four channels in town—or depending upon what frequency it was, say it was a high VHF channel, we could throw a switch on the back of the set and they could pick it up on rabbit ears and throw it in on the set. It works both ways.

The CHAIRMAN. So if we encourage local stations, and get their costs down, it wouldn't interfere with this system at all?

Mr. SHAPP. No, sir.

The CHAIRMAN. Well, it would interfere to the extent it might join it.

Mr. SHAPP. Some broadcasters have expressed a fear that the extension of community systems would preclude the development of new broadcast stations. Just in the past 3 weeks, there has been a station grant at Clovis, N. Mex., and Victoria, Tex., and a CP filed in Pocatello, and all 3 of these towns have community systems. The spread of community systems—

The CHAIRMAN. They are not incompatible, are they?

Mr. SHAPP. They are not. They both perform a needed service for the community.

Senator DUFF. In other words, if you get what you want from the Federal Communications Commission here, you are not going to be in a place where you have the situation preempted so that nobody else can come in afterward?

Mr. SHAPP. No, sir, Senator. In most places where this system would be used—the larger communities, frankly, can afford a cable off the mountain anyway, and in the smaller communities of one or two thousand population, they can't afford stations anyway. We will bring television into those areas in a manner that they can't get in any other way; and then if any other station—if a station does come on the air, this will not in any way interfere with the local station. It will speed the spread of television throughout the whole country.

Senator DUFF. What possible objection would there be to your getting a right of this kind, since you don't preempt any situation?

Mr. SHAPP. I would hate to make a forecast of what the Federal Communications Commission may decide.

Senator DUFF. I understand that, but I understand they move in mysterious ways in all commissions at times.

The CHAIRMAN. The Senator from Pennsylvania in trying to ascertain what possible objection could there be to this.

Mr. SHAPP. I can see none, sir. In fact, there are two precedents for this: A. T. & T. applied for, and received, permission to use the top 14 UHF frequencies for experimental purposes on their scatter tests in Florida. Also, there is a precedent in that the FM band has been used for commercial music broadcasts, and so the frequencies assigned for that purpose have been used for another purpose, because the FM frequencies were not taken up.

Mr. Cox. Would this use by you of some of these top 14 UHF channels interfere with the use of those channels for the general translator purposes that the FCC has in mind?

Mr. SHAPP. No, sir. In fact, it will expand the use of translators for this reason: A translator operates on low power and must of necessity spread out. It is limited to 60 watts e. r. p. It is not directional. Ours will be a very directional—as directional as possible, at low power. We will not be subject to the interference that you will get from a number of translators in a given area. You can put a greater number of these systems to work in an area than you can on the regular translators in those top 14 frequencies. Furthermore, we would be willing to take these frequencies on a nonexclusive basis, even a secondary basis——

Senator DUFF. I think that is the important thing.

Mr. SHAPP. If some broadcaster wants to use it at a future time, fine. Let him have it.

The CHAIRMAN. In this case, there are enough of them available that are not being used. It wouldn't interfere particularly.

Mr. SHAPP. That is right.

Mr. Cox. In other words, this present proposal is broad enough to permit concurrent use by you and by a translator in the pure form as well?

Mr. SHAPP. The answer is "Yes." Mr. Smith is proposing, in our application, that they just change a few words in the proposed rule-making, and that would accommodate this peashooter plan. That is all it would take. There is no congressional legislation necessary for it. It is entirely up to them to do this.

The CHAIRMAN. Go ahead if you want to finish any more of your statement.

Mr. SHAPP. I have pretty well covered most of the things I have here.

The CHAIRMAN. We will put the whole statement in the record. (The balance of the statement is as follows:)

The UHF signals picked up are converted, as I stated previously, to VHF channels at a central point in town. Since they will be carried out to all sections of the community via cable from this central hub, great economy in the community system layout can be effected over the conventional community antenna system. The number of amplifiers in cascade normally needed can be greatly reduced. This not only increases the quality of reception throughout the community, but also reduces the complexity of equipment and makes it

easier to maintain the system at a high operating level. The cable will serve all homes in the area. Thus, there will be no shadow areas caused by hills or tall buildings.

Economically, it can be shown that for any community that has a density of 60 or more homes per mile, the cost per subscriber with normal expected television saturation in the community will be less by this means than for each person to install his own individual UHF antenna and converter. The cost of the 0.1 watt peashooter on top of the mountain will be substantially less than the cost of the 10-watt proposed translator. Thus, the overall cost per subscriber will be much less when connected to the combination cable-peashooter system than when receiving UHF signals direct from a translator.

The accompanying chart (having reference to a large chart displayed in the hearing room) shows these relative cost figures for 40, 50, 60, 70, 75, and 80 percent saturations worked out for comparative translator and cable-peashooter systems that might be installed in Quincy, Wash. You will note that at only 50 percent saturation (and more than 50 percent of the people in Quincy already have VHF television sets) the cost per subscriber on a cooperative basis for installing and connecting to a combination cable-peashooter system is \$80, whereas the cost of installing a UHF antenna and converter and bearing a proportionate share of the translator cost is \$83 per subscriber. As saturation increases, the cost differential per subscriber becomes even more favorable for the cable-peashooter system. For example at 80 percent saturation, these figures become \$65 to \$80 in favor of the peashooter.

The Jerrold plan has another very great advantage in that each person connected to the system will of necessity carry his fair share of the cost for the entire system. Because of this, it is possible to obtain bank financing for the citizens of the community to install a system of this sort on a cooperative basis. Our company has been in contact with one of the leading banks of the Northwest which is willing to loan approximately two-thirds of the money necessary to install cooperative systems in these communities. Contracts for handling the paperwork on these loans have already been drafted.

Our company is prepared to work with the citizens of any community in the Northwest States to install either a community antenna system, or a translator or a peashooter system to bring quality television reception to them at the lowest possible prices. In most communities, as in Quincy, the cost per subscriber for a cooperatively owned peashooter system will not exceed \$75 for the connection. Service can be rendered on a cooperative basis for less than \$2 a month.

For technical and economical reasons, it is our belief that the translators proposed in FCC Docket 11611 will find application primarily in those communities that are situated close to a receiving location and where the density of population within the community is so low that distribution of signals to the viewers by means of cable would prove uneconomical.

There are many areas of the country now without television wherein the proposed translator alone cannot be effective at all. This map of the United States [having reference to a large map on display in the hearing room] shows almost 600 communities which, according to the latest figures published by Television Digest in January of 1956, have less than 10-percent television saturation. This low saturation is indicative of only one thing, lack of adequate reception. This is only a partial list of television deficient areas throughout the country. So great is the public's desire for television that even in areas where reception is very poor, even with high-cost roof antennas, saturation often exceeds 10 percent.

In most of these areas, there are no favorable mountaintops to provide receiving sites for television signals and to provide transmitting sites for the translated UHF signals. Thus, there is little, if any, application for the proposed translators in these areas. All through the South, Mississippi, Alabama, Florida, Georgia, et cetera, through the great Midwest plains of Nebraska, Kansas, Iowa, and on up through the Dakotas and back down into the southwest of Texas and Arizona, one finds that great distance is the barrier and not mountainous terrain.

To bring television to these communities, once again we propose the use of UHF peashooters, this time serving as milliwave links instead of more expensive microwave common carrier links. These smaller communities cannot afford the cost of bringing television signals to their communities by means of microwave.

The upper 14 UHF channels are not being used today for any broadcast purpose. A. T. & T. has already received permission to utilize these frequencies for experimental purposes relative to scatter broadcast. We will request permission from the FCC to use the top 14 UHF frequencies for UHF Peashooters

to supply signals for community systems all over the United States. With high directional antennas and limited power, there is no danger of interference to be caused by this service. Our proposal is to supplement the translator service, not supplant it.

The granting of this proposal would make it economically and technically feasible for any community of over 1,000 population anywhere in the United States to have television reception—in most cases of a multichannel nature—by the end of 1956. There need be no blacked-out television areas in this country.

The equipment to do this job is already developed and most of it is already in large-scale production. With FCC approval, the UHF Peashooter program can start immediately. There need be no area in the United States without television by the end of the year.

Mr. SHAPP. Would you care to go over the costs to show how the costs are lower off this plan than off the translator?

The CHAIRMAN. I think you should say something about that, because it was my understanding, when the Commission was here, that they were inclined to lean toward a solution of this problem through the translator. We queried them at some length as to the cost of translators. There were varied answers as to the costs, and as to whether the service would be as economical as alternatives such as the one you propose, but I would think they might run about the same. I think what you are trying to say—and what you have perhaps proven—is that in some communities you can give a better service.

Mr. SHAPP. That is correct. Also there has been a lot of misconception on the price.

The CHAIRMAN. If I lived in Ellensburg, which is a nice place to live, incidentally— [Laughter.]

Senator DUFF. I believe you stated it pretty well.

The CHAIRMAN. Yes; it is a beautiful town—I probably would want this. Suppose it might cost me a little more to have this service, still I would know I was getting good service and, therefore, I would be willing to pay this extra cost.

Mr. SHAPP. And you know the service is there to stay.

The CHAIRMAN. And I have got some maintenance, too.

Mr. SHAPP. You have more maintenance on a UHF converter and antenna than you do off the system.

The CHAIRMAN. As the Senator from Pennsylvania just mentioned to me, what was maybe bothering him, and surely would bother me, too, is whether or not you are getting something exclusive, but in this case you are not.

Mr. SHAPP. No, sir.

The CHAIRMAN. In other words, I can take it or leave it, can I?

Mr. SHAPP. That is right. If anybody in the town wants to put up their own antenna to pick up the signals, they could do that, too.

The CHAIRMAN. You couldn't stop them from doing that. I would say, going back to Ellensburg, that 9 chances out of 10, they probably wouldn't want to.

Mr. SHAPP. That is right. I think we can prove that quite easily.

The CHAIRMAN. There would be no objection of a public policy nature, because you are not taking an exclusive right at all.

Mr. SHAPP. In most of these towns through here, I believe that you will find the cooperatives will form in these towns, and they will operate this peashooter service themselves, to bring the service into the town. They will hop from town A to B to C.

The CHAIRMAN. Let me ask you this now. How many cooperatives have been formed in the United States?

Mr. SHAPP. In the United States, I am familiar with about 10 or 15 of them, sir.

The CHAIRMAN. How many other systems do you have that you service now?

Mr. SHAPP. Systems?

The CHAIRMAN. Yes; about 300?

Mr. SHAPP. Altogether, about 400 systems in the country.

The CHAIRMAN. The bulk of them are now being operated as a local corporation for profit—and there is certainly nothing wrong with that.

Mr. SHAPP. That is correct.

The CHAIRMAN. There is a movement to form cooperatives?

Mr. SHAPP. It will be a lower cost, and this movement is definitely on. The price has been proven, and people will form these cooperatives. The banks can step in and finance it.

The CHAIRMAN. Take Walla Walla. That is a private company, isn't it?

Mr. SHAPP. Yes, sir.

The CHAIRMAN. You charge so much and make a profit?

Mr. SHAPP. It cost about \$230,000 to put in that system in Walla Walla.

The CHAIRMAN. I think people are entitled to a reasonable profit if they put up their money for these systems.

Mr. SHAPP. It is a great risk business.

The CHAIRMAN. But there is a chance that there will be more and more cooperatives formed; and, as you say, financial institutions may loan the money for the initial capital cost, and then you could go on from there.

Mr. SHAPP. That is right.

The CHAIRMAN. That is entirely a matter of choice of the people in the area.

Mr. SHAPP. I think this plan here will further because it makes a low-cost project. You can say it is going to cost X dollars. Each person coming in the cooperative will pay so much. When you get above a certain saturation, they can pay the money into the cooperative for expanding the system or reducing charges.

Mr. COX. Would there be some chance, if you started a cooperative in one of these areas of reasonable size, that you could build up the set circulation to the point that, if the cost of operation of TV stations is reduced, you might create a situation where a TV station could go in where it couldn't if it had to go in cold and build up set circulation itself?

Mr. SHAPP. I believe that happened, frankly, in Victoria and in Clovis, N. Mex. They are getting enough sets there now so the risk of putting in their own station is reduced.

The CHAIRMAN. What about Walla Walla? There would be no chance for a cooperative there as long as the other fellow is there?

Mr. SHAPP. No. In these bigger cities it is entirely possible the cooperatives will not be practical anyway. It is too much money and too much bother. But, frankly, this plan is designed to bring it into the smaller communities. There it is. We can get the finances

to wire up these big communities. It is in the small communities that, frankly, it is uneconomical for a man to invest his money, because he can't make enough out of it anyway, it is a big-risk deal, and it is lower cost for the people to pay out.

The CHAIRMAN. The Commission just ruled against the Bridgeport booster, didn't they?

Mr. SHAPP. Yes.

The CHAIRMAN. Do you think you are offering an alternative solution to that service?

Mr. SHAPP. Yes, sir.

The CHAIRMAN. In a town like Bridgeport?

Mr. SHAPP. Yes, sir.

The CHAIRMAN. Or Quincy?

Mr. SHAPP. My recommendation for Bridgeport at this time would be a translator—with 230 homes, and spread way out. If you say it is growing, it is possible that the people know this.

The CHAIRMAN. Quincy is good for this?

Mr. SHAPP. Yes, sir, for the peashooter and a cooperative deal on wiring, because the costs would much less than they would be otherwise, and the service would be far superior. This is a map of Bridgeport, by the way, an aerial photograph [indicating] which we took, which shows how sparsely settled the area is.

The CHAIRMAN. That is because of the dam construction. That is a little different case. Quincy is growing to be a solid community, and as the Columbia Basin lands come in, it will get bigger and bigger. It will be a long time, however, before it will be big enough to support a TV station.

Mr. SHAPP. That is correct. If the people in Quincy would want to, they could have TV on this principle starting tomorrow, by depositing \$75—and the bank will put up \$50 to his \$25. He signs up, and gets service at less than \$2 a month on a cooperative basis. We will take a contract on that.

The CHAIRMAN. Quincy is technically off the air right now, with the booster. The FCC would have to act on your application very quickly?

Mr. SHAPP. Yes, sir.

The CHAIRMAN. You think you offer the alternative—what they should do in Quincy? You use that as an example?

Mr. SHAPP. Yes, sir.

Mr. Cox. Their time for comments closes on March 15 in that translator proceeding?

Mr. SMITH. That is right. Mr. Shapp's proposal will be part of those comments and will be filed right away.

The CHAIRMAN. When did you file your applications?

Mr. Cox. Monday.

The CHAIRMAN. You are going to file it Monday?

Mr. SHAPP. We will file it Monday. We hoped to file it yesterday, but we got tied up.

The CHAIRMAN. I do not think the weekend will make much difference.

We are interested in this because it so happens that there is this problem in my own area—but it is equally true, I think, in many areas west of the Mississippi River.

Mr. SHAPP. The problem exists right now, out in your area, as how to get TV to these people because many of them have bought sets, have spent a lot of money on it, and it is necessary to fill the vacuum.

The CHAIRMAN. I think the problem you have is that you are in the nature of a common carrier under Government license, and, therefore, you have to be sure that you are giving the service that the people pay for.

Mr. SHAPP. Senator, was that a statement or a question, about the common carrier?

The CHAIRMAN. You are in the nature of a common carrier, aren't you? You are operating under a Government license, and coming into the people's homes like electricity, water, and all these other things.

Mr. SHAPP. We are a public service company.

The CHAIRMAN. As long as you are giving the people what they pay for, I do not think anybody would get mad about that. I think you would give them better service. I think that is your point.

Mr. Cox. If it were set up on a cooperative basis there would be no problem of regulation at all, because there would be no profit by anyone.

Mr. SHAPP. There is no profit.

Mr. Cox. If there were an override on costs, it would be applied to future costs to reduce carrying charges?

Mr. SHAPP. They might add another channel or do a lot of things. Maybe the cooperative some day will put the local TV station on the air. These things would be determined by the local group who formed the cooperative.

The CHAIRMAN. Yes. Out in my State, under our State laws, they can easily form these cooperatives.

Mr. Cox. Would there be any chance, once you have beamed the converted signal down the mountain, to reconvert it down here and to broadcast it—not transmit it by cable—on another low V channel? Is the nature of some of these areas such that that could be done free of interference? At least, I suppose it would require an FCC license for it?

Mr. SHAPP. It would call for an FCC license also. I think you would have the problem of financing this, sir, because when there is a cable each person who gets a signal is getting it because he is connected to the cable. There is none of this passing the buck—"Let my neighbor do it, or let somebody else in town support this thing."

Mr. Cox. The costs can be fairly distributed to all those actually benefited?

Mr. SHAPP. That is right.

The CHAIRMAN. The cable is connected right to the home. You don't have an antenna there at all?

Mr. SHAPP. No. The cable goes right in. There is a terminal board, like a telephone terminal, that goes in the wall behind the set. It is wired directly to the receiver. There is no antenna—no antenna or converter problems.

The CHAIRMAN. Let me ask you this question: What problem do you think you will have with the originating station? You have to get their permission to pick that signal up; don't you?

Mr. SHAPP. No, sir.

The CHAIRMAN. Why not?

Mr. SHAPP. We are providing an antenna service, and not a program service, and it is our contention—although I should let our attorney speak, I guess.

(Discussion off the record.)

Mr. SMITH. Our point, Senator, as to why we do not think it would be necessary to receive permission in this instance is that Mr. Shapp's peashooter idea is what one of his engineers called "the poor man's microwave." The telephone company, when it furnishes off-the-air pickup service of this variety, using microwaves for an antenna system, doesn't have to get permission from the broadcaster to do it. We are actually substituting a radio technique for a wire technique here. Our transmission is not in the nature of a broadcast, and therefore we do not think the provisions of the Communications Act prohibiting rebroadcasting without permission of the originating station would be applicable.

The CHAIRMAN. You would have to be very careful that when you pick it up you do not interfere with it in any respect, so that it comes out just the way you pick it up.

Mr. SMITH. That is correct, absolutely.

The CHAIRMAN. Because sometimes, in some of these cases—not in my State, but this happened down in Nevada—a booster operator started putting in his own local advertising. Of course, the advertiser wouldn't care in your case, because he is just getting bigger coverage.

Mr. SHAPP. The stations don't care, either, because they are getting better coverage.

The CHAIRMAN. I would think you would have to have permission from the station.

Mr. SMITH. We do not feel so. We may have a point that we have to clarify.

The CHAIRMAN. Don't you get permission sometimes?

Mr. SMITH. Only on an informal basis. We went into it this morning. Briefly, the stations, many of them, are not in a position to grant permission because they do not own all of the property rights—if they have any, once the signal is broadcast—

The CHAIRMAN. Some of them feel they can't delegate it.

Mr. SMITH. That is right. I do not want any misleading statements on the record, but generally the attitude of the broadcaster is, "We are happy to have the additional coverage that comes out of these systems." They cooperate, send their programs out so we know what is going to be on the air, but they say, "Go ahead and do it, and don't ask us for permission."

The CHAIRMAN. In other words, as I understand it, you have had no objection to date from the originating stations.

Mr. SMITH. We have had 4 or 5 objections in the 5-year history of the industry. None has ever been litigated.

The CHAIRMAN. What are they about?

Mr. SMITH. They challenge us as infringing their property rights in their broadcast programs. Whenever that question has arisen, we have had conferences with the people involved. Up to now we have never been taken to litigation on the question. We think an antenna does not infringe any property rights.

The CHAIRMAN. What would be the reason for objecting, basically?

Mr. SMITH. We are at a complete loss to understand.

The CHAIRMAN. Unless somebody wanted to be stubborn.

Mr. SMITH. They might feel they wanted us to pay them for use of their programs. I think the reason they haven't made a real issue out of it is that as a practical matter there isn't enough for it to create any problem for them. None of them have really demanded litigation.

The NARTB recently said that if any broadcaster wanted to litigate this problem, they would file a brief in support of the broadcaster in court, but so far it has not come to a legal issue.

Mr. Cox. You mentioned that maintenance would be taken care of as part of this system. That, however, is maintenance of the system, of the amplifiers in the system, etc. It does not have anything to do with the maintenance of the individual set?

Mr. SHAPP. No. Our maintenance would go to the maintenance up to the wall behind the set, and the TV serviceman in the town would take care of the servicing of the set.

Mr. Cox. Your installation charge is the charge for carrying the cable down to the plate behind the set, and it is not a charge the serviceman might make when he first puts the set in and puts it in operation?

Mr. SHAPP. That is correct.

The CHAIRMAN. In other words, you are an antenna service?

Mr. SHAPP. That is all we are. That is all we hope to be. We would like to extend this antenna service into many, many more communities throughout the country.

The CHAIRMAN. Well, I do not know—if you are not exclusive and are not interfering with anybody else's right to do what he wants to do—why you shouldn't be allowed to do it.

Mr. SHAPP. I hope so, too.

The CHAIRMAN. In other words, I have the choice. I can take you or leave you if I live in a given community. If I think you are not giving me the service I am paying for, I can drop the service and put up my own antenna.

Mr. SHAPP. Yes; or you can put up a translator. There is nothing to give an exclusive to the peashooter.

The CHAIRMAN. You are not interfering with anybody starting a local TV station?

Mr. SHAPP. Not at all. I sincerely feel, Senator, that this plan could be put into operation, with the approval of the FCC, and within a very short period of time you would have no more problems with blacked-out areas in the country. It would be covered.

The CHAIRMAN. Of course I want you to know I am giving you a curbstone opinion here. The FCC may have a lot of reasons why you should not be allowed to do this.

Mr. SHAPP. You may be on the curbstone, sir, and I am down in the gutter looking up. [Laughter.]

The CHAIRMAN. After all, I think you are contributing an idea, because what we are trying to do is get television to the small communities. We think they need it, we think they are entitled to it, and we want to do everything we can to pursue that goal. You are in effect contributing an idea as to the way in which you think it can be done.

Mr. SHAPP. That is correct.

The CHAIRMAN. Offhand, I say I do not know of any reason why they shouldn't allow you to do this, or give you the authority to do it, if you do not get into what Senator Duff mentioned—exclusiveness of right in a given situation.

Mr. SHAPP. I do not think we need it, nor would we want it.

The CHAIRMAN. Anybody can take your service or leave it.

Mr. Cox. Is there a possibility that there might be services other than broadcast services that would be interested in these frequencies if the use you propose were not to be made of them?

Mr. SHAPP. There is no use for it at the present time. In fact, they are called the useless UHF frequencies.

The CHAIRMAN. As I understand it, you would be touching only frequencies that are not being used anyway?

Mr. SHAPP. They are not being used. They are up in space.

The CHAIRMAN. If there is any conflict, there are all sorts of frequencies left?

Mr. SHAPP. Yes, sir.

The CHAIRMAN. Well, thank you very much. Can you take care of South Carolina?

Mr. SHAPP. Well, it just so happens that in South Carolina we have got one.

The CHAIRMAN. Well, tell us about South Carolina. The Senator from South Carolina just showed up.

Mr. SHAPP. I happen to have my South Carolina salesman here. Jerry, do you want to take over and talk about South Carolina?

The CHAIRMAN. Senator Thurmond, he was talking about their plan to make television available to the smaller communities. They have what they call a community antenna system, which can be run as a cooperative or any other way they want to handle it. They put an antenna and a transmitter up on a mountaintop and bring the signals down and retransmit them on cables to the different homes. South Carolina is one of the places where you have kind of a rugged terrain, in spots, where they can't get television.

Senator THURMOND. The upper part of our State is rather hilly.

Mr. SHAPP. Here is an area in North Carolina and South Carolina [indicating on the map] where the red pins represents towns of one to five thousand population, and the green dots are over 5,000 population. These towns have practically no television today, and there is very little likelihood that they will.

Senator THURMOND. None of these towns have television?

Mr. SHAPP. That is right. They may have 10 percent saturation.

Senator THURMOND. You have some of those right by Columbia; haven't you?

Mr. SHAPP. Here is Columbia here—these are about a hundred miles from Columbia.

Senator THURMOND. Where you have got those pins would not be a hundred miles.

Mr. SHAPP. We have just put these in the center of the county. Actually, on a map of this size, we have made no attempt to pinpoint the exact town.

Mr. ZAPPLE. Why don't you have your salesman indicate the figures showing what communities do not have television?

Mr. SHAPP. We are getting the figures here now. We have the map of South Carolina, that shows the counties and shows the saturation of television.

Senator THURMOND. You will notice in the eastern part of the State there is Florence. They have a station in Jefferson County now.

Mr. SHAPP. This area here seems to be getting television [indicating].

Senator THURMOND. I mean the eastern part.

Mr. SHAPP. Down through here?

Senator THURMOND. No; that is the southern. Right along where you are now.

Mr. SHAPP. In Florence?

Senator THURMOND. They have a big TV station there now in Jefferson County.

Mr. SHAPP. They just went on the air. These figures are for December. They went on in February.

Senator THURMOND. They have a good station there.

The CHAIRMAN. That is the only one in eastern North Carolina?

Mr. SHAPP. No, these do not have television. Some of this area is getting it because the station just went on the air.

Senator THURMOND. This Florence station will go out for 75 miles.

Mr. SHAPP. It is possible most of these areas will get coverage from the Florence station.

Senator THURMOND. Florence will cover this whole area.

The CHAIRMAN. Yes, but your problem is up in those mountainous areas. They will have to have this system, or some other type.

Senator THURMOND. Greenville has some coverage in the mountains up there. They have one on a mountaintop, and Spartanburg will soon have one on the mountain.

The CHAIRMAN. That is what you are doing.

Mr. SHAPP. It is entirely possible there will be no need for a system of this type in that area.

Senator THURMOND. Charlotte, Greenville, and Spartanburg will take care down to Columbia, and Florence and Charleston will take care of this area you have got shaded.

Mr. SHAPP. As the stations come on the air in some territories of this sort it is entirely possible that these pins will have to be pulled off the map. However, I might also add that there are a lot of places that are not shown on this map that actually do not have television, because these figures are based upon counties. You might have 1 city in a county getting television, which would raise the percentage of that county over 10 percent, and there might be some other outlying towns in the county who would not be getting any television.

Senator THURMOND. Savannah covers our area, too.

Mr. SHAPP. In the flat country, stations can get out quite a way.

The CHAIRMAN. I have no further questions, Mr. Shapp.

Senator THURMOND. I am glad you are interested in improving coverage. We can always use better coverage.

The CHAIRMAN. You get your application in Monday or Tuesday and we will inquire of the Commission what they think about it and hope that they act promptly on the matter—as promptly as possible, so that we can get some of these matters settled, because out in my State,

now that they declared the boosters illegal, we want those people to get television, and maybe you have the solution. Maybe you have the answer. I don't know.

Mr. SHAPP. I think we have, sir, and we will certainly be glad to get out there and talk to the people and show them what we have. I think we can solve their problems.

The CHAIRMAN. I am sure the Commission will take a look at this proposal because it seems to me to suggest an alternative for some of the things they are discussing. However, they did put a great deal of emphasis on translators when they were here.

Thank you very much.

Mr. SHAPP. Thank you, sir.

The CHAIRMAN. We have no further witnesses today. We will leave the date open. The committee will resume at the call of the Chair.
(Whereupon, at 3:10 p. m., the committee adjourned.)

TELEVISION INQUIRY

WEDNESDAY, MARCH 14, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to notice, at 2 p. m., in room P-63, United States Capitol, Senator John O. Pastore, presiding.

Present: Senators Pastore (presiding) and Purtell.

Senator PASTORE. The hearing will come to order.

Before hearing from the first witness, there is a statement that I am going to make for the record.

We are resuming hearings this afternoon on the UHF problem and the general question of allocations. Before calling our first witness, there are a number of items to be placed in the record.

1. Letter dated March 6, 1956, from Paul M. Butler, Chairman of the Democratic National Committee, to Senator Magnuson, regarding his request to the major television and radio networks for time for a reply to President Eisenhower's announcement of his willingness to run for office again. Mr. Butler suggests that the committee ask the networks to explain their refusal of equal time. Senator Magnuson has asked me to announce that he hopes the networks will give careful consideration to the issues raised in Mr. Butler's second telegram, and to state again that questions regarding political time will be gone into at a later date.

2. Letter from Richard S. Salant, chairman of the television transmission tariffs committee of the National Association of Radio and Television Broadcasters, clarifying the status of that committee's study of the reasonableness of the telephone company's charges for intercity relays and correcting any misunderstanding that might have arisen as a result of the testimony of Mr. McConnaughey on February 21, 1956, to the effect that the industry had studied such rates and they were likely to go up.

(NOTE.—This letter should be read in connection with Mr. McConnaughey's testimony, pt. I, p. 181. See also letter from Mr. McConnaughey dated March 23, 1956, with regard to this matter, which is printed at p. 785.)

3. A further statement by J. E. O'Neill, of Station KJEO, Fresno, Calif., supplementing his statement filed March 2, 1956, and pointing out that, as he had prophesied, when his application for a stay holding in abeyance the grant of a V in Fresno pending appeal was denied, he was immediately notified by CBS that it was canceling his affiliation contract effective next June, when it is expected that the V station will be on the air.

4. Letters from (a) the National Grange and (b) the National Council of Farmers Cooperatives opposing any reduction in television service to rural areas.

5. A letter from the National Legislative Committee of the American Legion, forwarding a resolution of the national executive committee of the American Legion on continuation of free television broadcasts in the interest of hospitalized veterans.

(NOTE.—Pursuant to later request by said committee, this letter is printed in connection with other material relating to subscription television and will be found at p. 1054.)

6. Petition addressed to Senator Wayne L. Morse by a group of residents in Scottsburg, Oreg., urging licensing of television reflectors.

7. Two letters from UHF station operators, (a) Leo B. Keegan of station WNLC of New London, Conn., and (b) O. E. Richards of WFAM-TV, Lafayette, Ind.

8. Statement of Stewart Watson, president of Monona Broadcasting Co. of Madison, Wis.

(NOTE.—See, in connection with this statement, the counterstatement of Arthur W. Scharfeld on behalf of Radio Wisconsin, Inc., of Madison, Wis., printed at p. 749.)

(The matter referred to is as follows:)

ITEM I

DEMOCRATIC NATIONAL COMMITTEE,
Washington, D. C., March 6, 1956.

Hon. WARREN G. MAGNUSON,
Chairman, Senate Interstate and Foreign Commerce Committee,
Washington, D. C.

DEAR SENATOR MAGNUSON: Immediately upon the announcement that Mr. Eisenhower again would be a candidate, I dispatched the following telegram to each of the major television and radio networks:

"Since Mr. Eisenhower has requested and received all radio and television networks tonight to discuss his candidacy for reelection, I respectfully request, in keeping with established procedures, equal facilities for the Democratic Party. Kindly advise at your earliest convenience."

This request was promptly rejected by all four of the networks. I sent a second telegram, as follows:

"I have received your refusal to provide public service time to the Democratic Party to balance the time which was given to Mr. Eisenhower's political address last night. May I respectfully suggest that you reconsider your arbitrary decision, which appears to have been based upon the advice of your lawyers that we have no legal recourse to force you to grant fair treatment to the Democratic Party. In support of my suggestion that you reconsider your decision, let me cite these facts:

"(1) Mr. Eisenhower's address was political. He spoke as a candidate. He outlined his program. His radio and TV talk produced such headlines as that in the Washington Post this morning: 'Ike opens 2d term drive in TV talk,' and that in the Washington Evening Star today: 'President launches his campaign.'

"(2) My request for time for the Democratic Party was based not upon legal grounds but upon the moral responsibilities of the networks to give the same treatment to both political parties. I contend that when the President makes a political talk, which is carried by the networks without charge, the other party has a moral right to an equal amount of free time.

"(3) Your position that your network has no obligation to give the Democratic Party equal time when free time is given to the President for a political talk sets the precedent that the President can campaign free of charge from now to the convention. The only opportunity open to the Democratic Party to obtain equal airing of its views would be to purchase expensive time. Such a situation would constitute, I must point out, a corporate contribution of hundreds of thousands of dollars to the Republican cause.

"(4) Some representatives of the networks are currently seeking for a relaxation of present laws which are designed to protect the parties and their candidates from arbitrary favoritism by the networks. It is argued that the networks can be trusted to act fairly without the force of law to compel them to do so. Your action today seems to me to greatly weaken the case for relaxation of the existing rules.

"(5) If the networks persist in the position that the Democratic Party can expect fair treatment only when there is a law to compel fair treatment, I feel confident that the Congress will want to explore this problem fully and take whatever steps the Congress deems necessary to assure fair treatment to both major political parties.

"In conclusion, I should like to suggest that the clear legislative intent of the Congress has been that networks and the member stations which our Federal Government licenses are intended to serve all of the people, not merely whatever party may happen to be in control of the executive branch. Your action today seems to me to be in clear violation of the spirit of the present law and the intent of the Congress. Your action today does not merely deprive the Democratic National Committee of an opportunity to present the views of the Democratic Party: It also deprives the millions of Americans who belong to the Democratic Party of the right to hear from their leadership—a right which you gave last night to the millions of Americans who are Republicans. In the name of fair play, I call upon you again to reconsider your hasty decision."

In response to the second telegram, the Mutual Broadcasting System offered equal time on March 7 from 10 to 10:20 p. m. to a Democratic spokesman who is not a candidate for public office this year.

I respectfully suggest that you might want to consider asking the presidents of the other three networks to appear before your committee and explain in detail for you their refusal of our request for equal time.

I will advise you further as soon as these networks have replied to our second telegrams.

With warm personal regards, I am

Sincerely,

PAUL M. BUTLER.

ITEM 2

NATIONAL ASSOCIATION OF RADIO AND TELEVISION BROADCASTERS,
Washington, D. C., March 7, 1956.

HON. WARREN G. MAGNUSON,

*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

DEAR SENATOR MAGNUSON: It has come to my attention that on February 21, 1956, the Honorable George C. McConaughy, Chairman of the Federal Communications Commission, in testifying before your committee concerning the American Telephone & Telegraph charges for intercity television transmission, stated (mimeographed transcript, p. 552):

"I think we might tell you they are very apt to go up. The television industry has made a very close study of it at a number of conferences which were had, and I think from the standpoint of costs they are apt to go in the opposite direction."

While Mr. McConaughy's statement concerning the "television industry" and its views concerning television transmission tariffs is not wholly clear, this testimony has given rise to considerable misunderstanding concerning the status of a study currently being conducted by a committee, established by the National Association of Radio and Television Broadcasters, and known as the Television Transmission Tariffs Committee, of which I am chairman. Accordingly, I am writing this letter in order to report on the status of this committee's study.

The Television Transmission Tariffs Committee was established by the Television Board of Directors of the National Association of Radio and Television Broadcasters at a meeting of the board, January 26, 1955. To quote from the resolution, it was "created for the purpose of investigating the reasonableness and validity of common-carrier tariffs relating to intercity relay filed with the FCC." After preliminary organization meetings, the committee met on March 21, 1955, and April 7, 8, 1955, with representatives of American Telephone & Telegraph. It soon became apparent, as a result of these meetings, that a determination of the reasonableness of A. T. & T. intercity

television transmission charges was exceedingly complex and that the committee could itself reach no conclusions. Accordingly, on May 5, 1955, the committee recommended to the National Association of Radio and Television Broadcasters that, because of the complexity of the issues, and their transcendent importance to the industry, a fund be raised from voluntary contributions by television stations and networks, in order that outside experts could be retained to make a comprehensive study of the A. T. & T. rates and the basis therefor. A copy of the committee's report and recommendation to the NARTB is attached hereto.

The NARTB approved the committee's recommendation, and the stations and networks have contributed in excess of \$50,000. The law firm of Cravath, Swaine & Moore, New York City, has been retained to make the study recommended and to report to the committee, and the industry concerning the basis of A. T. & T.'s rates, its costs, and the reasonableness of the rates. The law firm is now only in the earliest stages of its study, and is currently seeking to obtain necessary information from A. T. & T. Because some questions have arisen concerning the information which Cravath, Swaine & Moore have requested of A. T. & T., a meeting between the committee and A. T. & T. representatives is scheduled for March 16, 1956.

It is apparent from these facts, therefore, that the question of A. T. & T.'s charges and costs is now under intensive, but still very preliminary, study by the television industry. Certainly, no conclusion, tentative or otherwise, has been reached by the committee, or the television industry, that A. T. & T.'s costs have risen or that any rate increase is warranted.

In order that there be no misunderstanding about the work of this committee, to which the television industry has so generously contributed in both confidence and funds, we would appreciate your placing this letter in the record of the current hearings of your committee.

Yours very sincerely,

RICHARD S. SALANT,

Chairman, Television Transmission Tariffs Committee, National Association of Radio and Television Broadcasters.

RESOLUTION BY THE TELEVISION TRANSMISSION TARIFFS COMMITTEE,
WASHINGTON, D. C., MAY 5, 1955

Whereas the issue of tariff rates is of transcendent importance to the whole structure of the television broadcasting industry, and a rate increase might have disastrous consequences to that structure; and

Whereas it appears from the subcommittee report that it is extremely difficult to reach a conclusion as to whether present tariff rates are reasonable or unreasonable; and

Whereas a proper approach to the resolution of the problem would be very costly and time consuming, involving the engagement of outside experts and the expenditure of several hundred thousands of dollars, even without litigation; and

Whereas because of the difficulties described in the subcommittee report, the committee can give no assurance that an expenditure of as much as half a million dollars would result in action which would either reduce or even maintain present rates; and

Whereas since the establishment of this committee and the preparation of the subcommittee report, the A. T. & T. has postponed a rate increase for 6 months; and

Whereas this 6 months' period provides the opportunity for additional organizational and preparatory efforts: Therefore be it

Resolved (as a recommendation to the TV board of the NARTB), That an all-industry committee be formed; and that this all-industry committee take all steps necessary and desirable to assure the availability of funds and expert judgment to resist any requested rate increase; and that this all-industry committee meet regularly in order to keep informed of the situation and to keep the public and the industry apprised of the current status of A. T. & T. intercity video rates.

ITEM 3

FURTHER STATEMENT OF J. E. O'NEILL, STATION KJEO, FRESNO, CALIF.

Mr. Chairman and members of the committee, my name is J. E. O'Neill, and I am the operator, through the O'Neill Broadcasting Co., of UHF television station KJEO at Fresno, Calif.

On Friday, March 2, 1956, my statement regarding the deintermixture situation at Fresno, Calif., was filed with this committee and inserted in the record. In that statement I referred to the fact that UHF station KJEO at Fresno was in immediate danger of losing its CBS affiliation to the newly granted VHF station; that all of our requests to the Federal Communications Commission for relief had been turned down; that we had sought review in the appellate court of the Commission's action in making the VHF grant in an all-UHF community, and that the matter was now pending in the court. I pointed out that in similar cases the court had indicated that such matters were the responsibility of the Commission. The court in that case had said, "If extinction of UHF stations results from the Commission's policy and actions, the responsibility must lie at the Commission's door."

What I stated in my former statement that I feared would happen has, in fact, happened.

On Friday, March 2, 1956, the date of the presentation of my previous statement, the appellate court denied our application for a stay order to hold the VHF grant in abeyance pending a final determination by the Commission and the courts. This means that the VHF station can now undertake construction. Within several hours of this decision I received notice from CBS of cancellation of KJEO's affiliation agreement, effective in June of this year, by which time it is estimated the construction of the VHF station will be completed.

Thus, after 2½ years of service to the community and an investment of over \$600,000 and great effort and money in building up a UHF listening audience, we now face extinction because the Commission has permitted the injection at this time of a VHF station in a UHF community. While we suffer the loss of the network and face possible loss of our station and investment, the public interest will suffer even more in the possible creation of a one-station VHF community. You are familiar with stories of other UHF stations in the same situation.

Only quick and decisive action by this committee and by the Commission can stave off the disaster which we, as well as the other stations, face in attempting to operate against the unfair competition of a VHF station. This relief must come within the next few months, either by way of definite deintermixture of UHF communities or of the drop-in of VHF channels for the use of stations such as ours.

As I stated in my earlier statement, the facilities provided must be on a competitive basis. It has already been amply demonstrated that lack of equal or competitive facilities in a market leads to the curtailment of service and the denial to the public of free choice in the selection of programs. This committee and the Commission should immediately take proper steps to make communities such as Fresno either all-UHF or all-VHF; otherwise, there will be complete obliteration of UHF stations—the very real future we now face in Fresno unless prompt relief can be brought us.

Respectfully submitted.

J. E. O'NEILL.

March 6, 1956.

ITEM 4 (A)

THE NATIONAL GRANGE,
Washington, D. C., March 5, 1956.

HON. WARREN G. MAGNUSON,
*Chairman, Interstate and Foreign Commerce Committee,
United States Senate, Washington, D. C.*

DEAR MR. CHAIRMANS As an organization representing nearly 1 million farm people, the National Grange is vitally interested in the hearings inquiring into television problems now being held before your committee.

Your committee is fully aware of the fact that farmers and other rural people depend more on radio and television, where it is available, for entertainment, news, information vital to the conduct of their business and cultural and educational material than do the citizens of our country residing in large cities. This is obviously so because they live in remote areas and do not have readily available to them the many sources of news, education and culture that are available to the inhabitants of our cities.

The last annual meeting of the National Grange was held in Cleveland, Ohio, in November of last year, and at that meeting the following resolution was unanimously adopted:

"The Grange, realizing the growing importance of television, opposes any action by the Government which would in any way reduce existing television service to rural areas or would prevent maximum expansion of service to the areas."

We understand that a number of witnesses appearing before your committee, speaking principally on behalf of UHF station operators, have urged upon you changes in our national television allocation plan which, if adopted, would unquestionably accomplish exactly the contrary to the objectives set forth in the above-quoted resolution. We do not question the sincerity or good faith of those making the suggestions, but simply to state them makes it obvious that they would reduce existing television service to rural areas and would prevent expansion of such service. For example, we have in mind such proposals as to reduce the present limits of power; reduce the present limits of antenna heights; reduce the presently required mileage separations between television stations; and the confinement of television stations to their home communities.

We have been instructed to oppose vigorously any action by the Government contrary to the objectives set forth in the above-quoted resolution, and we intend to carry out these instructions.

We request that you make this letter a part of the record of the hearing now being held by your committee.

Respectfully,

HERSCHEL D. NEWSOM,
Master.

ITEM 4 (B)

NATIONAL COUNCIL OF FARMER COOPERATIVES,
Washington, D. C., March 8, 1956.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

DEAR SENATOR MAGNUSON: We have noted with considerable concern some of the views expressed during the hearings currently being conducted by the Committee on Interstate and Foreign Commerce relative to proposals directly affecting television broadcasting.

The National Council of Farmer Cooperatives wishes to take this means of registering with the committee its strong protest against any action by the Government which in any manner would reduce existing television service in rural areas, or which would prevent further expansion of television service in the future.

The National Council is a national organization of farmers' marketing and purchasing associations which represents some 5,000 farmer cooperatives serving a membership of nearly 3 million. The council for many years has recognized the dependence of farmers upon radio, and more recently upon television, not only as a source of entertainment but also as a working tool which makes available to them timely reports on weather and market conditions and other valuable information needed in efficient farming operations. Since the range of television broadcasting is more limited than that of radio, television service to rural areas is even more restricted than radio service. For this reason, we vigorously oppose any actions which would reduce this service; and we strongly urge, instead, that the committee give consideration to steps which will improve rural television service.

On a number of occasions in the past, the National Council has testified before or has filed statements with the committee. Our special interest in communications stems from the fact that the people we represent live in small towns and rural areas. Because they are more isolated than urban residents, their need for the best possible communications service is substantially increased.

While our interest in adequate television service for rural areas is deep rooted and we have some understanding of the general principles of broadcasting, we lay no claims to being experts in the technical aspects of broadcasting. It is apparent, however, that some proposals advanced to the committee and also to the Federal Communications Commission would result in depriving many farm people and small-town residents of some of the television service which now is available to them. It appears such proposals also would hamper the most equitable distribution of television service in the future.

Any congressional or executive agency action which would deprive the Nation's farmers of badly needed television service in order to bring additional service to large urban centers would not be in the best interest of agriculture. We respectfully recommend that members of the committee keep uppermost in their minds the needs of those farmers who are relatively far removed from other sources of information and entertainment and who, therefore, deserve the best possible television service on the most economical basis.

We request that this communication be made a part of the record of this hearing.

Sincerely yours,

HOMER L. BRINKLEY,
Executive Vice President.

(NOTE.—Item 5, as indicated, is printed at p. 1054.)

ITEM 6

MARCH 2, 1956.

Hon. WAYNE L. MORSE,
*United States Senate,
Washington, D. C.*

We, the undersigned, all residents of the community of Scottsburg, Oreg., wish you to continue in your position for licensing or regulation by the Federal Communication Commission of the various community flash television systems, similar to our community system.

By voluntary contribution we have erected an antenna, and purchased and are operating a booster unit, which rebroadcasts the TV programs. Our system has been inspected by a FCC representative, who stated that our present method is the only way we could have television in Scottsburg. He further stated that the FCC is contemplating increasing the frequencies into the 70 and 80 category, which change would eliminate our reception, since our system can only operate on a low frequency, we having to convert from a 13 down to a 3 frequency.

The population of the Scottsburg area, able to be served, is about 400, and since the operation of our community flash system the sets number close to 200. Prior to the installation of the system there were but 14 sets in the area.

Our situation is identical to numerous other small communities through the State, and probably the Nation, which can only avail themselves of television by utilization of the type of equipment we are operating. The neighbor towns of Drain and Elkton are receiving television via flash systems. If we are to be deprived of such privilege through Federal regulation, we will have lost television indefinitely.

Any further information desired will be readily and eagerly furnished.

Members of Scottsburg Community Television (represented by Howard Ruben, R. B. Smith, Scottsburg, Oreg.): Clarence W. Miller, William Juniewicz, Robert Parsons, Robert J. Jackson, Edwin J. Romberg, R. J. Dietrich, J. B. Tharp, Althea Priem, Mrs. Dale R. Waddell, Mrs. Merle Vertheen, Mrs. Harvey Bishop, Mrs. Henry Priem, Edward H. Stauffer, Jack Galinger, Kenneth H. Thayer, Claude Jorgeneen, Merle R. Vertheen, Paul Winters, Chas. M. Cozy, Mrs. J. G. White, S. B. Hendrix, N. F. Krebs, Paul W. Jackson, Carl B. Wilcox, S. G. Robbins, Howard Reuben, Dorothy Workman, W. R. McDonald, Arlene L. Cook, Andy J. Mackey, Eunice Hedden, Mrs. Lee Mathews, Fannie L. Smith, R. B. Smith, Art Smith.

ITEM 7 (A)

THAMES BROADCASTING CORP.,
New London, Conn., March 5, 1956.

Senator WARREN G. MAGNUSON,
*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

MY DEAR SENATOR MAGNUSON: I am extremely grateful for your kind letter of February 13.

Because of a recent illness, I have been away from my office and will be unable to attend the current hearings to which you made reference.

The purpose of my letter to you, dated March 30, 1955, was to point up the multiple failings and gross inadequacies of the existing television allocation. In reviewing that letter, I find that its contents are as applicable today as they were at that time.

However, all of us within the industry have taken heart from your own unflagging efforts to effect remedial action, and there is mounting hope that at long last a new or greatly modified allocation will be a direct consequence of the present hearing.

In lieu of personal testimony, may I humbly request that my letter of March 30, 1955, be entered into the official records of the current hearing?

And, once again, please accept my thanks for your attention and for the sincere effort you are making to establish a fair, feasible, and farsighted television allocation to correct the inequities, physical faults, and myopic limitations of the present allocation.

For your convenience, I am enclosing a copy of my original letter.

Respectfully submitted.

LEO B. KEEGAN,
Commercial Manager.

THAMES BROADCASTING CORP.,
New London, Conn., March 30, 1955.

Senator WARREN G. MAGNUSON,
*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

MY DEAR SENATOR MAGNUSON: As chairman of the committee investigating various phases of our industry's ills, you are doubtless being buried under a barrage of material concerning the UHF question—pro and con. At the risk of adding further to your mail burden, I wish to comment on the recent editorial contained in the March 14 edition of Broadcasting-Telecasting, entitled, "Another Freeze." Such an article might well go unnoticed and unchallenged, except that this magazine poses as the industry's leading publication, and some of the remarks made seem calculated to scare certain individuals and groups which are vitally concerned with the problem.

The following statements in this editorial are open to argument :

The statement

1. "It should be evident that neither UHF nor VHF, standing alone, can provide optimum, saturation, service."

The argument

While it is true that VHF, standing alone, as it is presently allocated, cannot render such service, it has never been proven that VHF, with proper mileage separations, directional antennas, low-power transmitters, etc., cannot do the job—or at least, a much better job than both VHF and UHF are now doing.

The statement

2. "The FCC should forget about schemes that would artificially curtail or eliminate service. The 'public-interest' yardstick should be reason enough."

The argument

In the light of present-day conditions (not applicable when the present allocation was conceived), serious doubt exists as to whether the public interest is being served, presently, by the existing VHF allocation.

The statement

3. "More than two dozen (VHF permits) previously authorized have been turned back. The reasons are economic. And so it is with UHF."

The argument

This tendency to compare UHF economic difficulties with VHF financial troubles hardly deserves an answer. The theory that the two are in any way comparable was expunged, very effectively, during the Potter subcommittee hearings last year. Only the completely gullible, or the wholly uninitiated, could still subscribe to this theory. (And Sol Taishoff falls into neither of these two categories.)

The statement

4. "And so it is with UHF. There are quite a few UHF stations that not only are not complaining, but wish the breast beating would cease. They are doing well even with VHF competition." * * *

The argument

One cannot help but wish that these UHF stations which are doing so well, would come out into the open. Best available information seems to indicate that, for every UHF breaking even, or better, there are 10 UHF's in the red. Most UHF operators hope for a better fate for UHF, through new rulemaking, or legislation, or both. But, how long can UHF, as a whole, survive, on this structure?

The statement

5. "First Storer, and now NBC acquires its second UHF station, while CBS is surveying the field for its second. This certainly supports the theory that UHF is technically adequate."

The argument

The acquisition of 1, or 2, UHF stations, by the big powers is not, per se, indicative of an improved future for UHF. Many specious explanations might be advanced for their sudden interest in UHF. Suffice to say, however, that, if a millionaire possesses 5 Cadillacs, 6 Packards, 4 Lincolns, and 2 yachts, he might not be adverse to acquiring a hot rod, for his backyard.

The statement

6. "Meanwhile, the FCC would be well-advised to stick to its assigned task of allocating channels, both VHF and UHF, consistent with the demand and with its rules."

The argument

This contention that everything should be left as is, and the present allocation unchanged, or never modified—in short, a "status quo is, of course, the nub of the whole question. This theory is not, necessarily, in the "public interest," but is definitely in the interest of the networks; the big magazines and newspapers; and the big equipment companies, who collectively control 75 percent of the existing VHF stations.

The statement

7. "It is not the function of Government to wet-nurse citizens who venture into unfamiliar fields unprepared to weather the red-ink stretch, as did all of the pioneer VHF's. Broadcasting epitomizes free, competitive enterprise, and the risks it entails."

The argument

That a publication which ostensibly represents the entire broadcasting and telecasting industry could present such as unilateral argument as this, couched in such unsavory language, is hardly commendable. Further, the assumption that all UHF station owners are in "unfamiliar fields" just isn't so. Unless, of course, you completely segregate the television industry from the radio industry. In a sense, all television station owners are in "unfamiliar fields," since the industry still is less than a decade in age.

Far be it from this writer to suggest any course of action to the FCC, as does Broadcasting, or to any individual, such as yourself.

Simultaneously, certain truths anent the television industry, are self-evident, such as:

1. UHF as a whole, was a failure in 1953.
2. UHF as a whole, was a failure in 1954.
3. Judging by the mortality rate, UHF still is a failure in 1955.
4. It will also be a failure well into the foreseeable future, under present conditions.

Measures, such as "all channel sets," "pay-as-you-go" TV, tax-free legislation, etc., all come under the heading of "partial helps" and, also, I fear, "Too little, and too late."

Actually, and frankly, there is no overall cure or even any effective remedial help, in sight for UHF. For this reason, it would seem only logical to point out that the present VHF allocation should not be considered an an unchangeable assignment—nor a pattern to be unmarred by modification.

In justice to everyone, continuing consideration should be given to the following VHF changes, consideration commensurate with the past, present, and future, mortality rate of UHF stations:

1. Lowering of mileage standards for cochannel, and adjacent-channel, VHF stations.
2. Directional antennas, where necessary, to bring this about.
3. Adjustment of power, and adjustment of antenna heights, where necessary, based on present-day conditions.
4. Serious, continuous consideration for use of certain FM bands for TV; conversion to be based upon practical, realistic, application of these bands, in the light of present-day conditions, consistent with the public interest.

It is understandable, of course, that any proposal to change, or modify, the present VHF allocation, runs afoul of powerful financial opposition. One has only to bear in mind the ownership of the present VHF station lineup, to realize that the job almost seems insurmountable. Nonetheless, it is a decision that will have to be made—this year, next year, or some year—when Congress will, at long last, feel the moral obligation to establish a truly competitive television industry in this country.

As of late last year, the VHF station lineup shaped up, thus (some changes have taken place since then, but these do not alter the general VHF alignment):

1. Excluding Texas (left out because its vast terrain, and large number of VHF stations, throw the whole picture out of focus) only about 60 stations (in 47 States) were privately owned. All the remaining VHF's were owned by one of the following groups:

1. NBC.
 2. CBS.
 3. Big newspaper or big magazine publishers.
 4. ABC-Paramount.
 5. Dumont network.
 6. MBS.
2. Of the approximately 60 stations listed above as privately owned, the following owners were included:
1. Westinghouse.
 2. General Electric.
 3. Philco (has since disposed of its VHF properties).
 4. Stromberg-Carlson.

The conclusion? Just about 75 percent of the VHF stations in 47 States were owned by big corporations which collectively control all 4 networks, many large newspapers, and most of the communications-equipment companies.

Speaking of public interest, do you think that, if the public were ever really aware of this situation, there would not be a public clamor?

In short, may I humbly suggest that—

(1) Weighty, continuing consideration be given to the UHF plight.

(2) The door to a possible new VHF allocation, or possible modification of the present allocation, not be slammed shut.

It is not a question of the country, or the advertising industry, being unable to support more television stations. The ever-increasing millions of advertising dollars annually pouring into the television industry—now in its second billion annually (time and talent)—prove beyond doubt that the country, the economy, and the advertising industry could well support over a thousand television stations—provided, of course, there is some fairness to the allocation, and adequate power and engineering are made available to all.

It is a sad commentary to relate that America, with the world's strongest economy, the world's No. 1 advertising industry, and, what should be advertising's strongest medium—television—is able to adequately support only a few hundred television stations. It is a matter of simple mathematics to realize that countless thousands of workers—television station employees, and agency folks, additional network people, writers, actors, and others—are being denied a livelihood in advertising, solely because the big interests block any and all attempts to challenge the present VHF allocation.

Respectfully submitted.

LEO B. KEEGAN,

Commercial Manager, Station WNLG.

ITEM 7 (B)

WFAM-TV,

Lafayette, Ind., March 8, 1956.

Senator WARREN G. MAGNUSON,

*Chairman, Interstate and Foreign Commerce Committee,
United States Senate, Washington, D. C.*

DEAR SENATOR MAGNUSON: While I did not testify, I did attend the UHF-VHF hearing before your committee on February 27 and 28, and, according to our understanding, all of the information and all of the witnesses' testimony would be sent each of you gentlemen for study and action.

We are a UHF station owner and have been in operation since June 1953. We feel that the FCC encouraged us to go into this business, and we feel also that they should offer recommendations and encouragement of the continued operation of the UHF spectrum, its use making possible the only complete national television coverage for the United States today. Without it, we will find a monopolistic, high-powered, high-towered situation similar to that of the WLW AM station when they operated at 500,000 watts in Cincinnati and were reduced to 50,000 watts in 1938.

We urge your committee to bring pressure to bear upon the FCC to see that a definite and reasonable solution is offered to the faithful UHF operators who have invested their life savings and struggled with this medium for 2 to 3 years with no return or even a word of encouragement from the FCC for the last 2 years.

Very truly yours,

O. E. RICHARDSON, *President.*

ITEM 8

STATEMENT OF STEWART WATSON, PRESIDENT OF MONONA BROADCASTING CO.,
PERMITTEE OF TELEVISION STATION WKOW-TV, MADISON, WIS.

I am president of Monona Broadcasting Co., which operates television station WKOW-TV on UHF channel 27 in Madison, Wis. This statement is being filed in order to document this record with further proof of how the Federal Communications Commission is shuffling its processes so as to favor the VHF stations, and so as to kill off the UHF by delay, by inaction, and by the use of administrative sleight of hand.

Monona Broadcasting Co. was formed in 1946 in order to provide the people of Madison and the surrounding area with a new outlet for local self-expression and for advertising through radio. We are composed of over 100 stockholders, over 95 percent of whom reside within our service area. Not one of us owns more than 11 percent of the stock of this company. We are justly proud of the radio service which we have made available to our community and area since the formation of Monona Broadcasting Co.

In 1952, we applied for and received a construction permit for UHF channel 27 in Madison. We made the application based upon our understanding that UHF and VHF stations could coexist in the same community. We based this understanding upon the expert opinion of the Commission to this effect, as explicitly stated in its sixth report and order. We built our station expeditiously and we have been on the air since July 9, 1953. We believe that we have rendered an excellent service to Madison and to its surrounding area. We base this belief upon the acceptance of our station by the viewers, by the community service agencies, and by the advertisers.

Early in 1954, it became evident through the cessation of operation of many UHF stations throughout the country, that the purported competitive quality of UHF and VHF stations was not actually feasible. This was proved beyond peradventure of doubt by the voluminous testimony and evidence presented to this committee in hearings before Senator Potter's Subcommittee on Communications. We, therefore, in August of 1954, petitioned the Commission to "deintermix" Madison by allocating VHF channel 3 to the educational station, and by making the educational channel commercial. It should be noted that we did not propose the deletion of any channel from the area—nor did we lessen the number of channels from which service could be obtained. This proposal, we told the Commission, would place all three of the commercial UHF channels upon an equal competitive basis. It would permit all three to compete for the viewer, for the advertiser, and for a network on the basis of service and of excellence of performance. Our petition was denied by the Commission on the grounds that applicants for the VHF channel had already spent time and money pursuing the assignment. The effect on the area, and on the public interest, was not even considered by the Commission in denying our petition.

Shortly thereafter, this committee again considered the plight of the UHF stations and its minority counsel indicated the need for exploration of all avenues in order to assure a nationwide competitive television system. Selective deintermixture was one of the methods suggested and the committee's counsel pointed out to the Commission that private interest considerations alone were insufficient to preclude the adoption of such relief.

In February of 1955, we resubmitted our petition to deintermix Madison. This time the Commission initiated rulemaking proceedings looking toward the deintermixture of Madison, and requested us and the opponents to the proposal to produce voluminous evidence on all of the pertinent points involved.

We went through a long, involved and expensive proceeding. We submitted to the Commission evidence concerning the beneficial effects of deintermixture. We proved to the Commission, through competent evidence, that no area would be deprived of television signals should the deintermixture proposal be adopted. We committed ourselves to increase the height of our antenna and the power of our signal in order to fill in any possible gaps in service, should the area be deintermixed.

Many months after the hearings were concluded, the Commission issued a decision which refused to pass upon the merits of our petition. At the same time, we were shunted off into still another proceeding where, allegedly, our proposal would be considered again. This proceeding is still pending and the date of its determination, in the words of the chairman before this committee, cannot be foretold. However, in the intervening period, the Commission granted the pending application for VHF channel 3 in Madison, thus opening the way for immediate intermixture of the Madison area.

The effect of such an action upon the public interest was pointed out in detail in the proceedings before the Commission. The effect of intermixture need not be detailed again before this committee. The story has been told too often and too forcibly to require repetition. As a practical matter, while continuing to delay and to stall, the Commission effectively dug the grave for UHF service in the Madison area. In addition, it has clearly indicated to this committee and to the television industry that it is more perturbed about the private interests of VHF applicants than about the type of service to which local communities may

look forward to obtaining, and to means which would lead to the fulfillment of a national competitive television plan.

Specifically, I would like to answer one statement made by Commissioner Doerfer to this committee. The inference was raised that in Wisconsin some 50,000 people might be deprived of television service if the VHF grant in Madison were not made. We have presented specific facts to the contrary. We offered to the Commission to make a house-by-house canvass of the areas in question in the event the Commission was not satisfied with the studies already completed. But all this to no avail. Our proof has not been considered by Commissioner Doerfer, and obviously he is willing to make an unsubstantiated prediction in the face of the evidence of record, and despite the reluctance of the Commission to rule upon such record.

We have taken every possible step open to us to have the Commission consider the effect of intermixture on the Madison area. We allege, and we are ready to prove, that this effect is detrimental to the public interest. We are fortunate in that, in this instance, the public interest, and our own private interests, coincide. But the action we urge be taken by the Commission is not in order to preserve our position, but in order to meet the overall public needs.

We are in court at the present time in the pursuance of this effort. We feel that it would not be proper for us to attempt to try the pending court case before this committee. This we are not trying to do. We are merely presenting to the committee additional evidence of the Commission's willful disregard of the public interest while it pursues its own bent to aid the already powerful VHF interests to the detriment of the public good.

I respectfully request this committee to require the Commission to take prompt action upon the needs of the viewing public, while there still is some possibility that UHF and all that it represents may be saved. I request this committee to admonish the Commission to preserve the status quo in Madison until such time as the Commission has made its final decision as to what action it will take with respect of the allocation of television channels. To do otherwise is to prejudge the very matters the Commission is allegedly considering in the pending rule-making proceedings.

The Chairman of the Commission once advised the committee that the Commission would take no steps which would further confuse the intermixture question. The Commission has not lived up to those representations. It is respectfully submitted that, unless the Commission does so, UHF will be dead and any prospect for a nationwide competitive television system will have died with it.

Senator PASTORE. Our first witness this afternoon is Mr. John Englebrecht, WTVK, Knoxville, Tenn.

You may proceed, Mr. Englebrecht.

STATEMENT OF JOHN ENGELBRECHT, WTVK, KNOXVILLE, TENN.

Mr. ENGELBRECHT. Mr. Chairman and members of the committee, my name is John A. Englebrecht. I am president of South Central Broadcasting Corp., owner and operator of UHF television station WTVK, Knoxville, Tenn.

My statement is in the form of this petition which I am submitting to this committee at the present time with the intent of saving time. I will summarize some of the details in connection with the statement rather than read it completely.

Senator PASTORE. Well, let's do it this way, Mr. Englebrecht, if it meets with your approval. And I want to thank you for that consideration, because we have quite a number of witnesses. We will order that your statement be included in the record at this point in its entirety. And you may summarize your statement as you wish.

(The statement of John A. Englebrecht follows:)

In submitting this brief statement for your consideration in connection with your investigation of UHF-VHF allocation matters, it is my hope that I can make clear to you the pressing problem of economic survival which confronts WTVK as a UHF station in a multiple VHF market where it must compete with two

VHF stations. The problem results from intermixture of one commercial UHF channel with two VHF channels. It is submitted that the inconvertible situation which exists in Knoxville can be readily eliminated through deintermixture in accordance with any one of several proposals presented to the Federal Communications Commission.

Under the Commission's present table of assignments (sixth report and order) VHF channels 6 and 10 and UHF channels 20 and 26 (with 20 reserved for educational use) are assigned to Knoxville, Tenn. WTVK operates on UHF channel 26. Greater East Tennessee TV, Inc., owns and operates television station WATE on VHF channel 6. The Commission on January 13, 1956, released its decision granting the application of radio station WBIR, Inc., for a new station on VHF channel 10. This station is not yet on the air. No application has yet been made for educational use of UHF channel 20.

UHF station WTVK, which commenced operation October 18, 1953, was acquired by my company on July 28, 1954, pursuant to Commission approval, after the station was in strained financial circumstances and was contemplating the cessation of operation. At the time of the acquisition of station WTVK, television station WATE on VHF channel 6 was the only other television station in operation in Knoxville. VHF channel 10 was involved in a competitive proceeding before the Commission. In acquiring station WTVK my company assumed a heavy burden of existing financial obligations in order to give the people in the Knoxville area a choice of a second television service in accordance with the allocation principles laid down by the Commission.

In addition, WTVK, at great expense, has made major improvements in its facilities by increasing the effective radiated power of the station to visual 316 kilowatts and aural 158 kilowatts, installing new transmitters and making other equipment changes. It has also constructed a large and modern studio and transmitter building. The establishment and improvement of station WTVK has cost in the neighborhood of a half million dollars. WTVK incurred this great expense for the purpose of providing the viewing public in Knoxville with the best possible program service and for the purpose of improving its competitive position.

Station WATE on VHF channel 6 is affiliated with the NBC network. WTVK has been, and is now, providing the public with CBS network programs and the substantial portion of its revenue is derived from this program source and the national spot adjacencies to such network programs. WTVK's experience in 18 months of operation in competition with VHF station WATE on channel 6 has demonstrated that UHF station WTVK with network program service can survive on a marginal basis against competition from 1 VHF, but this experience has also clearly established that WTVK cannot survive against competition from 2 VHF stations if it loses its present network program source to the second VHF station.

The following circumstances show the precarious position in which WTVK has been placed as the result of the Commission's recent decision granting a second VHF station on channel 10 in Knoxville. As I previously stated, WTVK has been carrying CBS network programs. In October 1955, CBS forwarded to WTVK for signature a regular affiliation agreement with a 6-month cancellation provision, which I executed and returned. In response to subsequent inquiries as to the status of the contract, I was advised that the contract was in line for completion of processing and would eventually be reached for acceptance. Upon release of the Commission's decision granting a new station on channel 10, I immediately discussed with CBS representatives in New York the present status of the contract and was advised that it was being withheld pending a review of the Knoxville market and a determination of the potentialities of having a VHF or UHF station outlet in the area. I was also advised that WTVK was not a CBS affiliate but could continue to carry network programs on a per program basis pending a final decision by CBS.

As far as is known, CBS has not as yet made its final decision. It may be appropriate for this committee, during the appearance of the networks in these hearings, to ascertain the policy underlying such affiliation decisions and the factors upon which such policies and decisions are based. I want it clearly understood that I say this not for the purpose of criticizing CBS, but for the purpose of bringing the facts before you so that you will know some of the critical problems confronting a UHF station in a multiple VHF market. My relationships with CBS have always been very cordial and I hope that they will continue that way.

In addition to NBC and CBS there is, of course, the ABC network. As of the present time, this network claims affiliation with station WATE on VHF channel 6 and is placing on WTVK only four programs, on a per program basis, that

cannot be cleared on channel 6. Here, again, this committee may be able to ascertain and clarify during these hearings what the policy of ABC will be upon the commencement of operation of channel 10 in Knoxville.

WTVK has attempted time and time again to get the Commission to take action remedying the inequitable allocation in Knoxville by assigning a comparable and competitive VHF facility to the area for use by the station.

On October 28, 1955, WTVK filed with the Commission a petition requesting the Commission (1) to institute rulemaking proceedings looking toward the amendment of section 3.606 (b) of the rules by the assignment of VHF channel 7 to Knoxville, and (2) to issue appropriate orders to show cause why the outstanding authorization affected should not be modified to specify operation in accordance therewith. WTVK demonstrated that with two VHF stations in operation, Knoxville will become predominantly a VHF television market and that the Commission, itself, has recognized the impossibility of continued and successful operation of a UHF station in the face of competition from multiple VHF stations. On November 10, 1955, the Commission by memorandum opinion and order (FCC 55-1126) denied WTVK's petition without consideration on the merits on the ground that it was instituting general rulemaking proceedings to consider amendments to its present television-allocation plan and rules on a nationwide basis.

As you know, the Commission on November 10, 1955, instituted a general rule-making proceeding to consider amendments to its present television-allocation plan and rules on a nationwide basis (Docket No. 11532), and its notice of proposed rulemaking makes clear that deintermixture is one of the possible solutions to the problem before it and is to be considered in the proceeding. Complete deintermixture in Knoxville could obviously be effected by making the market an all-VHF area or an all-UHF area. The market could also be converted effectively from a predominantly VHF market to a predominantly UHF market by partial deintermixture reserving channel 10 for educational use and making UHF channel 20 available for commercial use.

On December 15, 1955, WTVK filed comments for consideration by the Commission in the general rulemaking proceeding. WTVK pointed out that plans suggested to the Commission have recognized the inequitable distribution of VHF channels in the large metropolitan areas and have proposed that VHF channels be used to provide at least 3 equivalent television services in as many of the top 100 markets in the United States as possible. WTVK urged that consideration of proposals in the proceeding would establish the need on a broad basis for the adoption of regulations in the public interest which would permit the assignment of a third comparable and competitive VHF facility to Knoxville.

An examination of the various comments and proposals filed in the general rulemaking proceeding indicates that a third VHF facility can be assigned to Knoxville through the adoption of some of the plans proposed. For example, the adoption of the proposals and comments filed by Columbia Broadcasting System, Inc., would make possible the assignment of VHF channel 8 to Knoxville. WTVK favors the adoption by the Commission of any plan which would make available for its use a comparable and competitive VHF facility.

Knoxville, Tenn., is the second largest market in the State of Tennessee and is located in a standard metropolitan area comprised of Knox, Blount, and Anderson Counties, for which the total population is 337,105. This area ranks 50th in population among all the metropolitan areas, and showed an increase in population from 1940 to 1950 of 37 percent. Within 20 miles of Knoxville, and consequently within the principal city coverage area of a Knoxville VHF station, is the community of Oak Ridge, a vital center of the United States Government's tremendously important atomic energy program. It is to be noted, also, that Oak Ridge is situated considerably closer to Knoxville than to any other major city in Tennessee. The population figure for Knoxville, Tenn., does not include the population of Oak Ridge, which in 1950 was 30,229, or the urbanized area outside of the city which contains an additional population of 23,397 (Census of Population, vol. 1, pp. 42-19, 42-21). In its Sixth Report and Order, the Commission recognized that geographic, economic, and population conditions vary from area to area and must be considered in assigning channels, and stated that in arriving at an equitable distribution of assignments throughout the country, consideration must be given to "population as one of the important criteria for distribution of assignments" (pars. 65 and 68).

A fair, efficient, and equitable distribution of available frequencies, in accordance with the mandate of section 307 (b) of the Communications Act, requires that the Commission assign to Knoxville for use by WTVK a third comparable

and competitive VHF facility for the purpose of serving the substantial areas and populations involved.

WTVK has petitioned the Commission in the alternative that, if the television allocation plan and rules are not changed so as to permit the assignment of a third comparable VHF facility to Knoxville, the Commission recognize the impossible competitive situation confronting a single UHF station in a multiple VHF market and substitute UHF channel 20 for VHF channel 10 as a commercial assignment. Since channel 10 is still involved in litigation and no station has yet been constructed or operated on that channel, a substitution of UHF channel 20 for channel 10 could be made without injury to the successful applicant or to the public.

Another solution would appear to lie in the abandonment of the Commission's fixed table of television assignments. The table of assignments was adopted for the purpose of expediting the establishment of television service throughout the country. This objective has now been accomplished for the most part. The abandonment of the fixed table of assignments and the establishment of appropriate standards of service would result in sufficient flexibility to permit the use of either VHF channel 7 or 8 in Knoxville without disrupting the service of any existing station. The abandonment of the table of assignments would undoubtedly take care of the problem of deintermixture in a substantial number of areas throughout the country.

South Central Broadcasting Corp. recommends that unless the Commission has readily available a nationwide reallocation plan which would solve most of the problems involved, the committee require the Commission forthwith to take immediate action to make reallocations in the public interest on a case-by-case basis. Such action can be taken with reference to Knoxville and with respect to a large number of other areas.

This committee, of course, recognizes the need for immediate action.

Mr. ENGELBRECHT. In the statement we point out that WTVK, as a UHF station, is operating in a VHF market consisting of channel 6 with channel 10 to be built this year—it has been approved. It is still being contested by the other applicants. We are the second owners of this operation, the previous operation having failed. They sold it to us before going off the air.

We have managed to improve the property over a period of 18 months, increasing power and service. We are a CBS affiliate—or rather we are on a per-program basis with CBS at the present time—and we have managed to actually broadcast approximately 70 hours of network per week and approximately 30 on film and in live programming on a local basis. Our progress has been slow and painful in competition with a VHF operation, and it promises to be worse with the advent of the second VHF station in the market.

We have no assurance of what our network future might be, and we think, as we have explained in this statement, that we should make every effort to try to deintermix the market so that either we could have 3 VHF's, or 2 UHF's commercial and 1 VHF commercial.

Senator PASTORE. May I ask a question, Mr. Engelbrecht—and this is a matter that disturbs me no end—at the time that you made your application and made your purchase, Knoxville was already a mixed market?

Mr. ENGELBRECHT. That is correct, sir. At the time that we applied for the purchase of this station—applied for approval of our purchase of the station—it was back in the early part of 1954. The situation in respect to the competition between UHF and VHF and their facilities and their coverage and the service that they could render in a market such as Knoxville was not as evident as it is at the present time. In other words, we thought at that time that the market was a 3-station market and still believe that 3 competitive facilities would

be successful in the market. However, we did not realize at the time that a UHF facility was not competitive to a VHF.

The result is that our problem lies largely with the matter of being able to sell the national advertisers and continue our network affiliation.

Senator PASTORE. Well, now, your second V has not gone on the air as yet. Have you objected to that grant?

Mr. ENGELBRECHT. No. We have not filed a formal protest trying to get a stay of construction. We have not done that. What we have petitioned for is that the market be—that in the market we be given a comparable V facility, either 7 or 8, or whatever would work, or that channel 10 would be reallocated to education, and that channel 20 which is presently allocated to education be assigned to them for commercial use.

We believe this: That as a U in competition with one V we could be successful, and we are at the present time.

Senator PASTORE. Let me ask you this: Do you have as much coverage with your U as the present V in your locality?

Mr. ENGELBRECHT. No, sir.

Senator PASTORE. And will the new V reach as far as the existing V reaches now?

Mr. ENGELBRECHT. Not quite.

Senator PASTORE. You mean it will have less power?

Mr. ENGELBRECHT. No, sir. The present V in the market is channel 6 with a hundred kilowatts on, I would say, about a thousand foot above average terrain installation. The new V going in is an upper band VHF on channel 10 with 316 kilowatts. There will be a very close—it will be very close in there as to the total coverages according to engineering standards, but they may not be the same, or are not going to be quite the same.

Senator PASTORE. Essentially, your desire is to change your own station to V rather than to stop this other channel—what did you call it—channel what?

Mr. ENGELBRECHT. Channel 10.

Senator PASTORE. Yes—rather than stop from coming in?

Mr. ENGELBRECHT. We do not propose to lessen the service in the market. What we want to do is make a competitive service in the market. The market is such that two stations would hardly serve the local advertisers, because of the potential volume of business that might go in there. It has ranged somewhere around 54th nationally as a market—that is, according to J. Walter Thompson's figures of 1951.

Senator PASTORE. What is the extent of the conversion in your community?

Mr. ENGELBRECHT. Conversion in the immediate city, or immediate area around the city, was surveyed by the ARB people—American Research Bureau—and in the spring of 1955 showed approximately 89 percent conversion. That was in the home county. Now, at that time the plant was operating with 21,000 watts of power. At the present time, since January 21, we have been operating with increased power trying to reach a larger area and serve a bigger market. I would guess that the outlying counties do not have nearly as much conversion in them as in the home county. I am sure there is not.

Senator PASTORE. But in the home county you say about what?

Mr. ENGELBRECHT. About 89 percent, which is an indication that if a station has programing, and they have no choice of other facilities to see it on, that there is a very good chance of making an operation successful in spite of some of its limitations on coverage, or the costs that might be incurred in trying to convert to the use of that facility.

Because it means that they have got to spend a little more money for their tuner, a little more money for their antenna installation. It means that the public, in order to enjoy UHF service, would spend a small amount of extra money which they normally would not spend unless there was a service that they could enjoy or wanted.

Senator PASTORE. Have you any apprehension that your relationship with CBS would change if channel 10 comes in?

Mr. ENGELBRECHT. In my statement here I discuss that problem. When we bought the plant, there was in existence a letter of understanding, or a form of contract, which expired in October of 1955. In September of 1955, we received from CBS station relations a letter which said they were enclosing a network contract for our signature—an affiliation agreement with a 6-month cancellation privilege. This we signed in the latter part of September and returned to CBS. We waited a month or two for our copy to come back, and it did not come back to us. Then we made some inquiry as to what had happened. We were advised that the contract was in line for completion of processing, and it might be a little time before we eventually reached acceptance.

There was no indication that it might be turned down. However, upon the completion of the Commission's decision granting a new station on channel 10, I went to New York the following week and discussed our affiliation relationship at that time and was told that our contract, which had been signed 4 or 5 months previous to that by us, was still withheld pending a review now of the Knoxville market and a determination of the potentialities of either a V or U facility for CBS in the market. At that time I was also told that we were no longer an affiliate and were on a per program basis with CBS.

I say here that the final decision has not been made and it might be appropriate for this committee to ascertain the policy underlying such affiliation decisions with the network and the factors which determine those affiliations. I am not doing this for the purpose of criticizing CBS but to bring the facts before the committee and perhaps solve the problems in our market and other markets of similar nature.

Senator PASTORE. We know precisely what you mean and what your relationship is and what your fears are. But your case is somewhat different from some of the others that we had for the reason, as I have already brought out, that apparently at the time you purchased your station you knew it was a mixed market and there had already been an allocation of an additional V station which had not been yet assigned.

Mr. ENGELBRECHT. The situation was exactly the same as it had previously been with the previous ownership who had applied for it. I do not know whether it is unfortunate, or a matter of judgment in our buying of the property from those people, that we did not at the time show any better realization of the problem than they did.

The one thing we did determine in our mind before going into that market was that there existed a good, growing future market for television and radio. We want the expansion, and we looked at it from the standpoint of the opportunity that existed in the service in that community. I still believe that 3 competitive facilities with 3 competitive networks would be economically sound, and it would better serve the public interest.

Senator PASTORE. Provided they were all V?

Mr. ENGELBRECHT. All U's might be the answer.

Senator PASTORE. What are you going to do with the 11 percent who have not converted? How are you going to compel the viewer to sustain responsibility for this scrambled mess?

Mr. ENGELBRECHT. I am not advocating that as a decision other than to say this: I think that when you have to take the total general interest of the public as a whole, there I think it would better serve the general interest to have 3 properties there, regardless of whether it is all U or V or 2 U's and 1 V, than it would be to have only 2 V's in the market because of the limitations that it would impose upon the amount of service that you could render in that community.

The community is right in the valley between the Smoky Mountains and the Cumberland Mountains, and it is fairly rough terrain. At the top of that valley is Johnson City, with a CBS service primarily but with some other network facility, too. At the bottom of that valley is Chattanooga, with CBS and some secondary service. Knoxville sits in the hub of that thing.

The service that comes in there is from those two ends of the valley. I think there is going to be plenty of coverage of the outlying portions of the metropolitan area from many sources. But in the area of Anderson, Knox, and Blount Counties—which is Oak Ridge, Alcoa, and Maryville, and the city of Knoxville and Fountain City, which is a market of 337,000, or perhaps a half million people when you take in Oak Ridge and some of its outlying environs—your need for a third facility is very definite. First of all may I point out this: We are today operating in competition with a V at a rate card, nationally, of \$250. Their rate card goes to \$600 the 1st of April. I do not think there is any question that two V's in that market could share rate cards of \$600, without too much problem of charging that rate.

Now, we do not find it easy to do business at half the operating charge of our competitor. But let's say that we are showing a small profit at the present time, which is being used on a local basis. Now, our revenue has been as much as 35 or 40 percent from the local market. I would say that our number of advertisers locally is greater than that of the V station in the market.

Senator PASTORE. These arguments that you are making now, have they ever been formally presented to the Commission either in a petition or a protest?

Mr. ENGELBRECHT. Trying to present economic arguments in the form of a petition has not been, I think, too successful. I don't know.

Senator PASTORE. Well, I mean have you ever appealed in any way to the Commission itself and presented these arguments?

Mr. ENGELBRECHT. Our applications and petitions have been directed, I think, toward that end without specifically just saying that.

Senator PASTORE. But I mean you have filed a petition seeking deintermixture. Have you made these arguments that you are presenting here now, more or less?

Mr. ENGELBRECHT. Yes, sir.

Senator PASTORE. And has any decision been made by the Commission?

Mr. ENGELBRECHT. Well—

Senator PASTORE. Was your petition rejected, in other words?

Mr. ENGELBRECHT. Our petition was rejected without consideration of its merits, as a part of a group. The problem is one that they have thrown into a general rulemaking proceeding. And the problem of getting into that is, of course, one of time.

Senator PASTORE. I am not quarreling with you. I am trying to establish the record, that is all, as to whether or not this has been called to the attention of the Commission for their consideration. Of course you realize that this committee cannot decide what community is going to get what kind of station. I mean that is an administrative function that has to be determined by the Commission itself.

Now, I am wondering if the facts that you are presenting to us today have already been presented to the Commission for their consideration—whether they are going to consider it on a selective basis or whether they do it on a nationwide scale. I am wondering whether or not they have the information that you present here now?

Mr. ENGELBRECHT. Well, we have—

Senator PASTORE. And your answer is in the affirmative?

Mr. ENGELBRECHT. My answer is in the affirmative, because what we have said is that there are several plans that advocate changes for the Knoxville market. CBS has advocated, in their plan to the Commission, adding channel 8, with some difference in spacing. ABC has advocated channel 8 for the market in the place of channel 26.

We have said that we would support any plan that would provide a competitive facility in the market, and that if that were not possible, we would suggest that 2 commercial U's with a change of channel 10 to education would probably work better than to have 2 commercial V's and 1 commercial U.

Senator PASTORE. Are you competent enough to say whether or not that particular locality, technically, can be made into a three-V station area?

Mr. ENGELBRECHT. I am not an engineer; however, I am familiar with the engineering problems. On channel 7 in order to get the minimum spacing as proposed in the Sixth Report and Order, it would necessitate moving channel 7 from Spartanburg to either Columbia, S. C. or Augusta, Ga. In that manner, you could put 7 into Knoxville and into a different city in South Carolina or in Georgia, thus getting a greater usage of the frequency.

Channel 8 is now in use at Nashville with WSIX-TV. The spacing there would be just a little less than the minimum spacing provided in the Sixth Report and Order, and could probably be worked out with a directional antenna or a lowering of the power, especially since there is very rugged terrain between Nashville and Knoxville, which is the Cumberland Mountains. I think one or both of them are possible in the potential.

Senator PASTORE. Now, has that been presented to the Commission?

Mr. ENGELBRECHT. That has been, yes.

Senator PASTORE. Your answer is in the affirmative on that?

Mr. ENGELBRECHT. Yes, sir.

Senator PASTORE. Let me ask you this question: With the existing V station and your U station now, are you making money or losing money?

Mr. ENGELBRECHT. We are making a profit, sir, and have for some months.

Senator PASTORE. And if the channel 10 station comes in—if the new V comes in—with two V's and the one U that you are running now, what do you expect your prospects to be?

Mr. ENGELBRECHT. Of course, part of that is based on the problem of network affiliation, so I will have to answer it two ways. Without the proper network affiliation, with its programming and its revenues and its adjacencies to the sell, why I might as well say that the business would fail. There would be no reason to expect that it will continue to operate channel 26 in a satisfactory manner.

Senator PASTORE. As far as I am concerned, your presentation is now complete. Are there any questions?

Senator PURTELL. I would like to ask 1 or 2 questions. No. 1: I was interested in hearing you say, sir, that you have 89 percent conversion there.

Mr. ENGELBRECHT. Right.

Senator PURTELL. Which in many areas would be considered satisfactory to ultrahigh operators. Obviously, then, your problem is not one as to a listening audience, if they wish to listen—is that correct? They have the sets to listen to your station or to the very high stations—is that correct?

Mr. ENGELBRECHT. That is correct, in the immediate metropolitan area. During the present period we are expanding that listenership into the rural areas which we did not serve previous to our increase in power; but given a period of time, it would be correct, sir.

Senator PURTELL. If you have 89 percent conversion there right now, where your listeners can listen to your programs or the programs from the other existing operating station, and you anticipate another station will come in, would your position be much better off if you had a very high and you had 3 stations operating? Would your problem not be one of network affiliation then?

Mr. ENGELBRECHT. Certainly we would have some problem of network affiliation—except that our opportunity for network affiliation would be much better.

Senator PURTELL. With 89 percent conversion you have got pretty high conversion right now; haven't you?

Mr. ENGELBRECHT. In the immediate market.

Senator PURTELL. But you tell us in the fringe area there is much overlapping there—is that correct?

Mr. ENGELBRECHT. Quite a bit.

Senator PURTELL. So, actually, the amount that you might enjoy of that market is a question; isn't that right?

Mr. ENGELBRECHT. Well, of course, the decision is not ours. In other words, what we think and what we think the network should believe are two different things.

A rejection of a U over a V by the network in certain markets is something that we do not control. In other words, even if we advocated the network's continuing with us—saying that this exists and

that exists and we think that they should because of this potential—that does not mean that necessarily they are going to agree with that, in service and coverage.

The market is a pretty rough terrain. The area down there is geographically quite rugged, and there are definitely going to be certain shadow areas. And there is a lot of argumentation to show that perhaps even with 316 kilowatts e. r. p. in that market we are still going to be at a considerable disadvantage in comparison with a V service.

Senator PURTELL. The point I was trying to make was that usually the complaint from ultrahigh frequency stations that have come in before this committee is as to the lack of conversion—we have heard that repeatedly—and that was the reason they wanted deintermixture. Now, you tell us that is not a problem with you; that you have 89 percent conversion at the present. So where would deintermixture help you to the extent that it would appear that you think it might? Is it a question, therefore, of network affiliation?

Mr. ENGELBRECHT. I did not say that conversion was not a problem. I said that it was not as much of a problem as it was for other areas. I said we had a high percent of conversation, but even 11 percent disadvantage is a disadvantage—especially when you increase that disadvantage as you go out further in your area. But even so, I think that if we were able to keep a major network with a major portion of its schedule as a UHF in that market, there might be some hope of survival. The problem gets itself right down to the basic problem of being able to take in enough money and have enough programing so that you can afford to carry the operation until such a time as all these other obstacles are overcome—improvements in equipment, conversions, sales resistance, and other problems that exist with operation of a TV station.

Senator PURTELL. You have answered my question. Thank you. I have finished with my questioning.

Mr. Cox. About these rates, Mr. Engelbrecht: Do I understand that the national card rate for your V competitor is shortly going to be \$600 for an hour of class A time and that yours is \$250?

Mr. ENGELBRECHT. That is correct. Presently on their AA time they have a \$500 rate, and I have been told that that is increasing to \$600 on April 1.

Mr. Cox. Is it fair to say that the fixing of your rate has been in large part determined by the network?

Mr. ENGELBRECHT. No, I wouldn't say that. Our rate has been determined largely from what we could charge for it.

Senator PURTELL. Senator Pastore, I must go at this point. I am most anxious to be here when the other witnesses appear, and so I will come back as quickly as I can, Mr. Chairman.

Mr. ENGELBRECHT. Certainly the network has told us that; as a matter of fact, I approached them and asked them if they could consider changing our rate to \$300 instead of \$250, and they had that under advisement with that affiliation contract. I do not want to create the impression that they established our national \$250 rate.

Mr. Cox. What is your national spot rate?

Mr. ENGELBRECHT. It is the same.

Mr. Cox. It is the same?

Mr. ENGELBRECHT. Yes, sir.

Mr. Cox. Now, applying your 89 percent of conversion in the metropolitan area, shading off somewhat as you go out further, what do you think is the ratio of the sets that you can reach to the number of the sets that your V competitor can reach?

Mr. ENGELBRECHT. First, I am going to say that there has been no survey that specifically covered that situation, so anything that I am going to say is based upon projected thinking or guesswork. Our competition in the market had a tele-pulse made during the month of December, prior to our increase in power. The circulation in the outlying counties as to listenership was rather disappointing to us. We have had county surveys or local telephone surveys made on some of our better programs such as Sunday evening and Tuesday—Ed Sullivan, \$64,000 Question, CBS baseball on Saturday afternoon.

In the metropolitan telephone exchange we have at times been able to withdraw, in listenership, the V station. But when you take the total market and evaluate it as a sales potential for a national advertiser, and you get into the outlying counties, we are at a considerable disadvantage until this increase in power creates conversion and listenership and viewers.

Mr. Cox. As I understand it, even with your increase in power, your V competitor can cover somewhat more area than you can. Now, in that somewhat larger area, he can reach every set there because he has no conversion problem. The point I am trying to get to is this: In your best judgment, would you feel that he has a potential listenership—assuming he can get the programs to attract them—that is more than double yours?

Mr. ENGELBRECHT. We have felt that as evidenced by charging on that basis in order to be competitive—in other words, we have indicated that.

Mr. Cox. You think it is actually based on the facts as they exist, or on the facts as you think they are understood?

Mr. ENGELBRECHT. I think that the answer is both. I think I am influenced by the national advertisers' thinking and by the local advertiser as well as our own evaluation.

Mr. Cox. In other words, do you feel that if you got your rate up to \$300 you would be receiving a fair competitive price for your time, because of your more limited audience?

Mr. ENGELBRECHT. I think so at the present time. However, I think that our increase in facilities may enable us to better that as we get more penetration into the outlying areas. In other words, I do not anticipate being able to reach a rate anywhere near their rate, but I do think we won't have to operate at, say, 40 or 50 percent of that rate.

Mr. Cox. If you eventually get 89 percent of conversion in the entire area that you can now reach, will that give you substantially 60 percent, say, of his audience?

Mr. ENGELBRECHT. I would think so; yes.

Mr. Cox. As I understand it, you feel that Knoxville, as the 54th market in the country, could support three stations if they are competitive, or even if possibly one of them were a V and the other two were U's?

Mr. ENGELBRECHT. Yes, sir.

Mr. Cox. But is it your position that if two V's are to be in the market that that substantially creates an artificial ceiling, so that no third station can exist there until a third V is made available to the area?

Mr. ENGELBRECHT. Especially if it is—qualifying it to say that that third station is a U and it is without network affiliation.

Mr. Cox. Isn't that normally the situation that the third station is in, that is, if is a U?

Mr. ENGELBRECHT. Yes, sir.

Senator PASTORE. A little bit on this rate fixing. At the time that you instituted your rate of \$250—is that what you said it is?

Mr. ENGELBRECHT. It has been a rate that was established for the stations from the time it was—

Senator PASTORE. Established by whom?

Mr. ENGELBRECHT. It was established by the previous ownership and was continued by our ownership subsequently to that.

Senator PASTORE. But is the establishment of this rate made in consultation with the national network?

Mr. ENGELBRECHT. They may have discussed it with the network.

Senator PASTORE. I mean what is your relationship?

Mr. ENGELBRECHT. My relationship with the network is that I am trying to get an affiliation, and keep one, and that I would like to have the highest rate that they feel that they can pay us. I think that is being rather obviously blunt.

Senator PASTORE. You asked for the \$300 rate?

Mr. ENGELBRECHT. I suggested they consider it.

Senator PASTORE. Whom did you ask it of?

Mr. ENGELBRECHT. Station relations.

Senator PASTORE. Of the network?

Mr. ENGELBRECHT. Of the network; yes, sir.

Senator PASTORE. In other words, before you establish a rate, you have to take it up with the network and the rate you fix has to be satisfactory to the network? Now, that is a very simple question.

Mr. ENGELBRECHT. The national spot rate does not necessarily have to be the same as your network rate; no, sir.

Senator PASTORE. But whatever the rate is, it has to be agreed to with the network?

Mr. ENGELBRECHT. For the network rate; yes, sir.

Senator PASTORE. That is all I have. Thank you.

Mr. ENGELBRECHT. There is only one thing I said as a recommendation at the end of my statement, and that was that the South Central Broadcasting Corp. recommends that unless the Commission has readily available a nationwide reallocation plan which would solve most of the problems, that the committee here require the Commission to take immediate action to make reallocations in the public interest on a case-to-case basis. Such action can be taken with reference to Knoxville and in respect to a large number of areas. It is only in the form of a suggestion. And I certainly appreciate the opportunity of appearing before this committee.

Thank you.

Senator PASTORE. The next witness is Mr. John H. DeWitt, Jr.

Mr. ROLLO. My name is Reed T. Rollo. I am legal counsel for John DeWitt, the next witness. I have supplied counsel with copies of his prepared statement, and rather than take the time of the committee

to have him read the statement, I would like to ask that it be incorporated into the record. Mr. DeWitt, however, is here and will be glad to answer any questions you may have.

Senator PASTORE. Without objection, that request will be complied with. We will have the statement inserted in the record in its entirety at this point.

(The statement of Mr. John H. DeWitt, Jr., is as follows:)

My name is John H. DeWitt, Jr. I am president of WSM, Inc., which owns and operates television station WSM-TV and standard broadcast station WSM in Nashville, Tenn. WSM-TV operates on channel 4 with the maximum effective radiated power of 100 kilowatts. We have a construction permit authorizing the installation of a 1,379-foot tower to be located in Nashville. WSM is a class 1-A station operating with 50 kilowatts of power. It commenced operation in October 1925, and WSM-TV commenced operation in September 1950.

My experience embraces both the managerial and engineering fields of radio and television broadcasting. I have been active in the engineering field since 1922, when I constructed the first broadcasting station in Nashville. I attended the Vanderbilt University School of Engineering and upon leaving there became a member of the technical staff of the Bell Telephone Laboratories in New York. I became chief engineer of station WSM in 1932 and retained that position until 1942. I entered the military service in 1943. In the service I was director of the Evans Signal Laboratory near Fort Monmouth, N. J., which directed ground radar development for the Army and Air Force. I am a fellow of the Institute of Radio Engineers and a member of the American Physical Society, as well as other scientific organizations. I have actively engaged in allocation matters before the Federal Communications Commission, and its predecessor, for many years.

In the managerial field, I have been active manager of station WSM since 1947 and of both WSM and WSM-TV since WSM-TV commenced operation in 1950.

THE IMPORTANCE OF UHF

Although I am here as a representative of a VHF station, I wish to make it clear at the outset that I consider the development of the UHF frequencies as being essential to full development of our television potential. Some seem to think of UHF as an entirely separate part of the television spectrum. Actually, it is simply an extension of a band which is now called VHF and which ultimately could be integrated so that when one thinks of television, one thinks of channels 2 through 83, inclusive, rather than UHF and VHF.

UHF has been pictured here as an inferior method of bringing television service to the people, but instead, it is merely not yet a fully developed means of extending the spectrum. So what we are talking about is a matter of degree rather than saying that one part of the spectrum is bad and the other good. As one goes up the spectrum, propagation effects develop gradually. As a matter of fact, there is a large jump in frequency between channels 6 and 7 in the VHF region, and between channels 13 and 14, even though many people who do not know the allocation structure think of these channels as being adjacent. There is little difference in the ratio between channels 6 and 7 in the VHF band, and channels 13 and 14 which is the jump between VHF and UHF. (Channel 6 is 82 to 88 megacycles, and channel 7 is 174 to 180 megacycles. Channel 13 is 210 to 216 megacycles, and channel 14 is 470 to 476 megacycles, a ratio of approximately 2 to 1 as compared with a ratio of 2.2 to 1.)

It is a fact that in hilly terrain the higher the frequency the poorer the coverage. On the other hand, there are some advantages of UHF over VHF which are not generally realized. There is less manmade and cosmic noise in the UHF band, so that a UHF picture is likely to be a cleaner picture than a VHF picture. Since it is much easier to construct a highly directional receiving antenna for UHF frequencies, it is much easier to eliminate ghosts in this band. It turns out also that with the development of high-power klystron tubes, it is easy to generate high transmitter power for transmission in the UHF band, and I believe it costs no more than equal power in the upper part of the VHF band.

There is a very close parallel to the VHF-UHF situation in the lower and upper parts of the standard broadcast band. Here, frequency, power, and soil

conductivity determine coverage. There are 5-kilowatt stations in North Dakota operating on low frequencies which have far greater daytime coverage than 50-kilowatt stations operating on higher frequencies in other parts of the country. Generally, 1,500 kilocycles is far inferior to 600 kilocycles in point of coverage, and yet the economics have turned out such that some stations operating on higher frequencies are in better financial condition than ones operating on lower frequencies.

I have reviewed most, if not all, of the statements that have been submitted to you and I find that no one has said that there will be a scarcity of channels if the UHF portion of the spectrum develops. There will be plenty of channels available for hometown television. I find, also, that no manufacturer who has had experience in the development of UHF equipment has said from a technical standpoint it cannot be developed into a perfectly usable service. There seems to be no engineering disagreement on this point.

The economics of the present situation with regard to UHF are not too different from the situation in which VHF operators found themselves in the early days. Even WSM-TV, which is one of the latecomers in VHF, found it necessary to invest \$200,000 in a microwave system to bring network service into Nashville from Louisville, and to lose a very large amount of money before the operation could be successful from an economic standpoint. The UHF operators must be willing to expend substantial sums in their initial installation in order to provide the coverage necessary to attract advertisers. For the present, it does not appear prudent for UHF operators to make the required investment except in markets of a size adequate to support a VHF station.

The real crux of the UHF problem is getting all-channel receivers into the hands of the public. Since it is not prudent from an economic point of view for a UHF station to operate in a smaller community and go through the expensive process of building up circulation, some other method must be found. My suggested solution is that VHF stations be permitted to install translators in smaller communities operating on UHF frequencies, thereby providing the public within the range of the translator stations with programming which will create the incentive to purchase all-channel receiving sets. We have almost an exact analogy in our experience with standard broadcasting. Clear channel stations operating in the larger cities of the country deliver the only receivable radio signals to many small towns and rural areas. These signals provided the incentive to people residing in these areas to purchase receiving sets. As the number of sets increased, it became economically feasible for radio stations to operate in many of these smaller towns, since they already had a readymade audience. A review of the history of the development of radio stations will confirm this.

PRESENT ALLOCATION PLAN

It is my view that an allocation plan is essential to proper development of a nationwide competitive television system. We shall obtain a much more efficient use of the spectrum by this method than we would by allocation on a case-to-case basis.

The plan embodied in the Commission's Sixth Report and Order is the result of years of study by experts of Government and industry and except for some possible minor modifications, should be allowed to stand.

Any allocation plan requires accurate propagation information on the frequencies involved. The present allocation plan of the Commission is based upon the best propagation information available and as knowledge is added with time, it may be possible to improve upon it.

A substantial amount of intermixture will, in my opinion, be necessary to develop fully the UHF channels. As I have already stated, there must be incentive for the public to acquire all-channel receiving sets. This incentive will be created in part by translators as I have mentioned, in part by high-power UHF operations, and in part by intermixture.

What is needed more than anything else at the present time is an affirmative expression of confidence in the future development of UHF. The pioneer VHF stations invested huge sums for plant investment and operated at substantial losses over a long period of time. They continued this operation, however, as prudent businessmen, expecting that the time would come when they could operate at a profit. If, at that time, the station operators, members of the Commission, or other people in high places, had publicly complained about the financial losses they were incurring or that the allocation structure might be changed, unquestionably the acquisition of television receivers by the public would have slowed down considerably or might have come to a complete halt.

ADDITIONAL VHF CHANNELS WILL NOT SOLVE THE PROBLEM

If additional VHF channels were to be added from the military or that portion of the band now allocated to FM, as has been suggested, those stations would be faced with the same conversion problem with which UHF stations have been faced. Nor would the number of VHF channels possibly available from these sources meet the requirements for additional television channels. UHF channels would still be required to meet the needs of the country.

DROP-INS, DIRECTIONAL ANTENNAS, REDUCTIONS IN MILEAGE SEPARATIONS, REDUCTIONS IN POWER, REDUCTIONS IN ANTENNA HEIGHTS, ETC., ARE NO SOLUTION

All of these suggestions, while offering possibilities of some additional stations, are purely devices which would result in inefficient use of spectrum space and in most instances will probably deprive many more people of service than would be provided a service with the full development of the present allocation plan.

Here, again, we have an analogous situation in the development of AM broadcasting. From time to time since the creation of the Federal Radio Commission in 1927, the engineering standards have been lowered because of pressures for additional stations. The result, as of today, is that all classes of standard broadcast stations are receiving much more interference than was originally contemplated.

With television having made substantial strides in the few short years of its existence, and with the benefit of the hindsight we have in AM broadcasting, we should not take steps which would result in increased interference to the existing television service. This is particularly true in that the development of UHF channels will provide channel space for the additional stations required as economic conditions permit. The additional VHF stations added through any of the methods we are discussing will adversely affect the development of the UHF because it further reduces the incentives of all concerned, including the broadcaster, the public, and receiver manufacturers.

CONCLUSIONS

For the reasons already covered, I believe that this committee should agree with the following:

1. An allocation plan is needed and the present allocation plan of the Commission, except for possibly some minor shifts such as have already been made since its adoption, is satisfactory and should not be substantially modified.

2. This committee and the Commission should announce publicly, with as much dispatch as possible, that their studies and deliberations show that the UHF channels are capable of rendering satisfactory television service and that no change in the general allocation structure is contemplated; and

3. This committee and the Commission should do everything possible to encourage manufacturers to produce all-channel receiving sets.

Senator PASTORE. I have not read your statement, Mr. DeWitt. I don't know what you have said. If you want to make some summary of what you have told us, then I could ask you questions. But I have no prepared questions to ask you, unless you tell me what you have said.

Mr. DEWITT. I wouldn't expect you to, Senator. This is not a long statement, and I think I can summarize it fairly quickly.

Senator PASTORE. Yes. You just take the salient items and point them out to us.

Mr. DEWITT. All right, sir. I feel that I am qualified as an engineer as well as in the management field—

Senator PASTORE. Let me ask you one question before you go any further. Has your situation anything to do with the situation of the previous witness?

Mr. DEWITT. No, sir.

Senator PASTORE. All right.

Mr. DEWITT. I am an operator of a VHF channel 4 station in Nashville, Tenn., which was the pioneer station in Nashville.

Senator PASTORE. All right, sir.

Mr. DEWITT. I am just expressing some views here really on allocation matters.

Senator PASTORE. Yes.

Mr. DEWITT. More than anything else.

Senator PASTORE. All right.

STATEMENT OF JOHN H. DEWITT, JR., PRESIDENT OF WSM, INC.

Mr. DEWITT. I feel that I want to make it clear that the development of UHF is essential to full development of our television potential. Some seem to think of UHF as an entirely separate part of the spectrum. Actually it is an extension of a band which we now call VHF but which ultimately could be developed into one television service which would be channel 2 through channel 83. You would think of it as just one broad television service.

UHF has been pictured as an inferior method of bringing television to the people. I feel, on the contrary, that it is an undeveloped or not fully developed method of doing so. As we go up in the spectrum, we do not suddenly come to a point where everything becomes bad. Physics is not like that. As we go up in the spectrum, the frequencies are affected more adversely by hills, so that you do not have as wide coverage for the same power on UHF as you do on VHF. But on the other hand, there are some advantages that UHF has over VHF, which I point out here. One is that there is less manmade noise on the UHF band. There is less cosmic noise, and cosmic noise does limit VHF reception at times. There are fewer ghosts on UHF. It is possible to get a cleaner, prettier picture on UHF under many circumstances than it is on VHF. So, there are some advantages. Another advantage is that now that we have high-power tubes developed—I believe the military sponsored the development—these are mainly klystron tubes—it is possible to generate high powers in the UHF, which we need to develop this service.

We have a fairly close parallel here between the VHF-UHF situation and the broadcasting situation in the standard band. There are great disparities in the propagation characteristics of broadcast frequencies. 1,500 kilocycles in New England is certainly far inferior to 600 kilocycles—or I have an example here. In North Dakota there is a 5-kilowatt station on a low frequency which has much greater daytime coverage than higher frequency stations with 50 kilowatts in other parts of the country. So there are disparities which the broadcast business has had to live with, and does live with.

Now, I notice in reading the statements that have been put in that no one has said that if UHF is fully developed there won't be enough channels for everybody. Now, that is a very comforting thought, and it makes you think that you should strive even more to make UHF go.

The situation here is not too different from the VHF situation 5 to 8 years ago. My station invested \$200,000 in a microwave system just to bring network service from Louisville to Nashville, and it took us a long time to get that money back. We are now in the black, but we spent an awful lot of money on VHF broadcasting before we got it back. And I remember in one board meeting I predicted that in the first year of operation we would have 500 sets in the Nashville area.

This was in 1948 and 1949 when we were talking about it—that we would build up 500 sets. Of course, that was all wrong, because no one anticipated how television would go.

The crux of this whole matter, in my opinion, is to find a means of getting all-wave or all-channel receivers in the hands of the public. That is really the meat of the matter. I think that some incentive has to be provided.

One possibility is this: We have made some experiments with satellite stations. It is all in the record of the FCC. Presumably you could create a market by allowing VHF operators to put in translator stations on the fringe of their coverage area. Let's say a kilowatt radiated power on UHF—it would have to be UHF. These would translate the signal of the VHF station. Then people in those markets and in those small towns would want to buy all-wave receivers. This would give you a market which the receiver manufacturers might be interested in.

Now, there is a very close parallel here between this proposal and the broadcast business—radio. Years ago it was not possible for small towns to support radio stations. The clear channel signals were out there. Our station, for example, in middle Tennessee—WSM Radio—put a signal into these towns and caused people to want to buy radio sets. And they bought them and build up a market in these towns. So then the local operator could come in and put in his own radio station and capture part of this audience. He could not possibly have afforded to do it if the sets had not been there. He could not have put in this little 250 watt or 1,000 watt station in the town. Now, the same could be true here, I think. You could provide a signal in UHF which would cause people to buy receivers, and then later on the UHF operator could come in and you might have what some people call home-town television.

Now, I feel on the allocation plan some people have proposed to handle this thing on a case-by-case basis. I do not think you can do that. I think you need an allocation plan, and it seems to me that the sixth report and order of the Commission is a pretty good one. Maybe there should be some minor changes, but it is a pretty good plan. Any plan that you make has to be based on some assumptions as to what you want to accomplish, but also it has to be based on very solid technical information on the propagation of radio waves. And this plan is based I think on very sound information which the Commission had.

I think what we need with UHF more than anything else is an affirmative expression of confidence in its future development. If at the time the VHF operators went on the air, members of the Commission or other people in high places had publicly complained about the financial losses, or if the station operators had done that, or if the Commission had indicated the allocation structure might have been changed, unquestionably the acquisition of TV receivers by the public would have slowed down completely or might have come to a complete halt.

Now, I do not believe that the addition of a few VHF channels will solve this problem. I have made no careful study to see where they might come from, but people who have, tell me that there is very little chance of getting more than a few VHF channels from FM or from the military. This won't solve the problem. Actually, in my opinion,

it would slow down the overall development of television, because to have this fully developed service you have got to have the UHF band. And if you throw in a few channels, you will stop the cries momentarily, but you will slow down UHF development.

Now, the same is true of "drop-ins" and the use of directional antennas, reduction of mileage separations, reduction of power, and so on. I would not propose to discuss these individually, but they certainly will not solve this problem. In conclusion, I would like to make three points. One, an allocation plan is needed, and the present allocation plan of the Commission, except for possibly some minor shifts such as have already been made since its adoption, is satisfactory and should not be substantially modified. Two, this committee and the Commission should announce publicly, with as much dispatch as possible, that their studies and deliberations show that the UHF channels are capable of rendering satisfactory TV service and that no change in the general allocation structure is contemplated. And, three, the committee and the Commission should do everything possible to encourage manufacturers to produce all-channel receiving sets.

That is all I have.

Senator PASTORE. I will have to call a recess for half an hour. We will meet again approximately at 3:30.

(Whereupon, at 2:50 p. m., the hearing was recessed until 3:20 p. m.)

Senator PASTORE. When Mr. DeWitt concludes his testimony, our next witness will be Mr. Paul W. Morency of Hartford. Senator Purtell desires to be here when Mr. Morency testifies. So if we conclude with this witness before Senator Purtell returns, we will wait for him, if that is satisfactory to Mr. Morency.

Mr. Cox. Mr. DeWitt, as I understand it, you said that the sixth report and order is substantially valid because it is based on very careful information and on the best propagation data available. In your opinion, is that propagation information reliable as a basis for predicting the actual service area that can be achieved by television stations?

Mr. DEWITT. I think it is. I think it is the best. Now, this is a very complicated, technical problem, to predict exactly the service area of any given station. The methods sought in the sixth report and order allow you to depict the average situation. Of course, the information is being improved all the time—propagation information is being improved. I do not believe that the Commission has reached the point where they would modify their present method appreciably, so I think they would let it stand.

Mr. Cox. Do you have what you think is accurate information as to the coverage area of WSM-TV?

Mr. DEWITT. Yes, sir.

Mr. Cox. Is it larger or smaller than that which would be predicted based on the Commission's—

Mr. DEWITT. I believe it is pretty close to what would be predicted, very close to it.

Mr. Cox. What is the terrain around Nashville? Do you have mountainous terrain there which would limit your signal more than would be the case on level terrain?

Mr. DEWITT. A little more. But it is rolling. It is rolling terrain, about like Virginia over here before you reach the mountains.

Mr. Cox. So that actually you feel that the circumference of your service area is substantially as would be predicted by the Commission staff?

Mr. DEWITT. I think so; yes, sir.

Mr. Cox. Now, in your opinion, could a UHF station come on the air in Nashville and compete with the three established V's there?

Mr. DEWITT. I don't think so; no, sir.

Mr. Cox. Could a fourth V come on the air and compete now or in the reasonably foreseeable future?

Mr. DEWITT. I would say that it could not in the reasonably foreseeable future.

Mr. Cox. That is, you think that Nashville now has the maximum television service that it can support?

Mr. DEWITT. At the present time. Now, sometime way off perhaps it can support more.

Mr. Cox. Are all three of the V stations in Nashville operating at a profit, to the best of your knowledge?

Mr. DEWITT. Are they what, sir?

Mr. Cox. Are they operating at a profit?

Mr. DEWITT. At a profit?

Mr. Cox. Yes.

Mr. DEWITT. I believe they all three are. I know that two are. I believe that the third one has turned the corner. That is hearsay, of course, but I believe it has turned the corner. It was operating at a loss for some time.

Mr. Cox. I realize this question is hypothetical, but suppose that 1 of these 3 V allocations in Nashville were a U, do you think that a station operating on that channel could survive in Nashville, even though it has been demonstrated that Nashville apparently will support 3 V stations?

Mr. DEWITT. I think that now that Nashville is established as a V market and the receivers in our coverage area—the 200,000 receivers or more on our coverage area—they are buying V receivers, not all-channel receivers—and I believe if one of these stations would change to a U that it would have a very, very hard time.

Mr. Cox. Well, suppose then that originally there had been a U allocated there, and that the V stations were on the air first. Would you have thought that a U could then come into existence? The point I am getting to is this: If you have V stations established in an area, certainly if there are more than one of them, even if there are additional U allocations available, so that on the allocations table there is room for growth, isn't it true that the established position of the V's makes it competitively impossible for any other station to come into the area?

Mr. DEWITT. I don't think so. I think my answer has to be highly qualified. But I would say this: Suppose 6 months after we went on the air on channel 4 a U had come on. At that time I believe we had perhaps 25,000 to 50,000 sets in the area. If when the U came on at that time, all-channel receivers were available generally, and if the U had a good program service—we are on NBC now, let's say the U came on with CBS—then he would, I think, ultimately come out all right.

Mr. Cox. By "good program service" do you mean necessarily network service?

Mr. DEWITT. I am afraid so; yes, sir.

Mr. Cox. Is there a tendency on the part of the networks and the national advertisers to prefer a V station if there is one in the area?

Mr. DEWITT. I don't really know that, because we don't have any U's in Nashville. And I am familiar with our own market and not with other markets necessarily.

Mr. Cox. I think you said it cost no more for equal power to operate a U station.

Mr. DEWITT. That is right.

Mr. Cox. Are you speaking there of construction costs or operating cost?

Mr. DEWITT. I am speaking of both.

Mr. Cox. Both?

Mr. DEWITT. Yes. I am speaking of a U versus a high-band V.

Mr. Cox. Now, that is the high-band V operating at 316,000 watts?

Mr. DEWITT. That is right.

Mr. Cox. And the U operating at what, a million watts?

Mr. DEWITT. A million watts; yes.

Mr. Cox. I think you said that it doesn't appear prudent for U operators to make additional investments at the present time. Is that the way you put it? You made the point that UHF operators must be willing to spend substantial sums in initial installations in order to provide the coverage necessary to attract advertisers, and pointed to the fact that your station lost money initially, and eventually was able to turn the corner. Now do you think that, viewed realistically, the present climate is such as to encourage anyone either to make an initial investment in UHF television stations or to spend substantial money in improving an existing station unless they are given some assurance that some relief to their present situation is going to be forthcoming?

Mr. DEWITT. I think, of course, it depends entirely on the individual market that we are talking about. I think a lot of U operators went into places in which they could never come out. And I think that if a VHF goes in under the circumstances under which some of the U's went in that they would have had trouble too. It is a very complicated problem. I think, though, that under certain circumstances—well, let's take the Knoxville situation that we were talking about here a few minutes ago. I believe two V's are allocated to Knoxville.

Mr. Cox. That is right.

Mr. DEWITT. If one V were allocated to Knoxville, if I were running the U, I would go ahead and pour the power on. And I would up my rate—if I had 89 percent conversion I would up my rate, and I would say I have got the finest picture in Knoxville, and I would try to put it over. And I think I could.

Mr. Cox. Would you make that expenditure if there were two V's?

Mr. DEWITT. I am not sure that I would in Knoxville. And I am not sure that I would in Knoxville if there were a third V. In other words, I believe that three V's in Nashville have a marginal situation—the third one does. And I believe that in Knoxville the third V would have a marginal situation.

Mr. Cox. Isn't there a substantial difference between the situation that faced the V's when they went on the air and were losing money and the situation that now faces the U operator is in that, at the very

least, the V operator in the initial loss period had the assurance that he had a facility that suffered no competitive disadvantage with his competitor, and that that is not true of the U operator?

Mr. DEWITT. Well, there is something to that.

Mr. Cox. That is all I have.

Senator PASTORE. I am not suggesting that you should, but you are in a three V area. You wouldn't want to trade your V for a U, would you?

Mr. DEWITT. No, sir; I certainly would not.

Senator PASTORE. All right.

That is all. Thank you.

STATEMENT OF PAUL W. MORENCY, TRAVELERS BROADCASTING SERVICE CORP., HARTFORD, CONN.

Mr. MORENCY. Mr. Chairman and members of the committee, my name is Paul W. Morency. I am president and general manager of WTIC in Hartford, Conn.

Our company has been operating a radio station for some 30 years. In 1947 we applied for a television station. We thought then, and we think now, that the experience that we gained in broadcasting to the people of New England over that long period of years qualified us to know what the New England people want and need in the way of broadcast service, and we think that we can do a good job in television.

I appreciate the opportunity of presenting our views to this committee and I have a written statement which I would like to have incorporated into the record. If it pleases you, I would like to just digest some of the points for the committee.

Senator PASTORE. If there is no objection, the statement will be printed in its entirety.

(The prepared statement of Mr. Paul W. Morency follows:)

My name is Paul W. Morency. I am president and general manager of the Travelers Broadcasting Service Corp., which has been for more than 30 years the owner and operator of station WTIC at Hartford, Conn. I have been in radio broadcasting since 1925, and I have been general manager of WTIC since 1930. I think my experience in radio broadcasting in New England, and the studies and observations which I have made of television, qualify me to comment on the television situation in Connecticut and the Connecticut River Valley.

I appreciate this opportunity to present my views on Connecticut's urgent need for additional television service and on the prospects for future television development in this area.

I would like to summarize briefly the efforts of our company to obtain an authorization from the Federal Communications Commission to build and operate a television station in Hartford, because I think the long delay in bringing television to the people of the Hartford area from a local VHF station is pertinent at this time.

Our company commenced the operation of WTIC in Hartford in 1925, and we applied for a television station in Hartford on September 10, 1947. We believe that our experience and success in broadcasting to the people of Connecticut, and our understanding of their needs acquired over a long period of time, render us well qualified to do a good job in television. Our application was designated for hearing in 1947, due to competing applications for the same channel. At that time, there were two VHF channels allocated to the Hartford-New Britain area, channels 8 and 10. Before the hearing started the Commission was confronted with a petition to move channel 10, for which we had applied, to Bridgeport, Conn., and the Commission imposed its 3-year freeze on the industry in order to restudy its countrywide allocation plan.

We participated extensively in the Commission's long allocation proceeding. During the course of the rulemaking proceeding, channel 3 had been tentatively assigned to New London, but in the Sixth Report and Order of 1952, the Commission adopted our proposal for its assignment to Hartford. In allocating channel 3 to Hartford, the Commission noted that the population of Hartford was more than five times that of New London, and that Hartford, being the capital and central population area of the State, deserved the VHF assignment. The Commission also noted that the coastal area to the south and east of Hartford, including New London, would receive service from channel 3 in Hartford and would also receive additional VHF service from channels allocated to Providence and New Haven.

After the release of the Sixth Report and Order, and relying on that decision which had been so long in the making, we amended our pending application to specify channel 3 instead of channel 10. Subsequently, two other applications for the same channel were filed. One of the applicants, station WDRC at Hartford, dismissed its application after entering into a contract with our company to purchase an interest in our television station if our application were granted.

However, a hearing was still necessary because of the third applicant. This hearing, which began in October 1953, was not concluded until April 13, 1954. More than a year later, in May 1955, the examiner issued her initial decision in the case recommending a grant of the station to my company. Exceptions were taken to this initial decision, and oral argument was held before the full Commission 2 days ago. We are very hopeful that a final decision will be released within the near future authorizing us at last to go on the air with the television station for which we applied almost 9 years ago.

We are fully prepared to bring television on channel 3 to the Hartford area in from 60 to 90 days from the date of a favorable decision on our application. We have already made extensive preparations for building and equipping what will become one of the finest television plants in the country. For instance, we will have color equipment which will bring not only network but local color programs to the Hartford area. We have made extensive contacts with religious, educational, and civic groups and organizations in our territory which assure us of the participation of these organizations on a regular basis in our television programs.

The four UHF stations in the Connecticut River Valley which have petitioned the Commission to delete channel 3 from Hartford, WKNB-TV, New Britain; WWLP, Springfield; WHYN-TV, Springfield-Holyoke; WGTH-TV, Hartford, went on the air without competitive hearings, with the full knowledge that channel 3 was coming on later, and they have been very successful in solving the conversion problem. In addition, all sets sold in this area now and for the past several years are all-channel sets. A newsletter that WKNB-TV issued 3 weeks ago used a headline: "The Biggest, Healthiest, 3-Year-Old You've Ever Seen." The release also stated: "When WKNB went on the air there were only 13,000 sets in its area which were equipped to receive its signal. In 3 years, the channel 30 family has grown to 375,000 homes. The American Research Bureau reported last month that 93 percent of the television sets in Hartford County are equipped for UHF, a conversion rate almost unmatched elsewhere in the country."

This conversion rate is the same for the four television stations in the area which have asked that channel 3 be deleted from the commercial service. There has been testimony both before the FCC and before this committee by the UHF operators that the big problem which they must surmount to be successful is the conversion of existing sets to receive UHF signals and the sale of all-wave sets in their territories. It can be seen from the above that both of these problems have been solved in the Connecticut River Valley. A recent release from WWLP, of Springfield, whose president, Mr. Roger L. Putnam, recently testified before this committee, states that this station had had an increase of 30 percent in its total billings in 1955 over 1954, including 50 percent increase in the number of national advertisers and a constantly growing list of blue-chip accounts.

At the present time, these four stations are broadcasting substantially the full schedules of either the Columbia Broadcasting System or the National Broadcasting Co., that is, WKNB-TV, New Britain, on channel 30, and WWLP, Springfield, on channel 22, carry substantially complete schedules of NBC, and WGTH-TV, Hartford, channel 18, and WHYN-TV, Springfield-Holyoke, channel 55, authorized to shift to channel 40, carry a substantially complete schedule

from CBS. Parenthetically, the Commission has given favorable consideration to the requests of WWLP and WHYN-TV to improve their coverage in the area by changing their assignments to lower frequencies. WWLP was permitted to change from channel 60 to channel 22, and WHYN-TV has been authorized to operate on the lower channel 40 in lieu of channel 55.

WKNB-TV, channel 30, and WGTH-TV, channel 18, have entered into contracts for the sale of their stations to NBC and CBS, respectively, subject only to the approval of FCC. Even while filing briefs before the FCC predicting the ultimate failure of UHF broadcasting in the Hartford area if channel 3 were allowed to commence operations there, these 2 stations signed highly profitable sales agreements with the 2 networks. On February 23, 1956, the Commission approved the sale of WGTH-TV to CBS. The application for the sale of WKNB-TV to NBC is still pending before the Commission.

Let us examine what will result from the acquisition by CBS of WGTH-TV. Obviously, all CBS programs will be carried on this station and that of itself will guarantee the economic success of the station. This purchase also has an immediate and obvious effect upon UHF station WHYN-TV because it is necessary for CBS to have both stations on its network to give proper coverage to their advertisers in these populous and important markets.

If and when the approval of the FCC is given to the NBC-WKNB-TV purchase, the same reasoning will apply to WKNB-TV and to WWLP. Both of these stations will then carry full NBC schedules because both stations will be necessary to cover the Hartford and Springfield markets.

Mr. Putnam, of WWLP in his recent testimony before this committee stated that in his opinion WWLP—in fact, all of the UHF stations in the valley—could not long survive the advent of a channel 3 station at Hartford. In my opinion this statement is completely fallacious. Each of the networks will schedule their programs over UHF stations in the Hartford-New Britain and Springfield-Holyoke markets. There is no other way that coverage in these markets could be obtained.

We have a similar situation right here in Washington, D. C., and Baltimore, Md. Washington and Baltimore are roughly the same distance apart as are Hartford and Springfield, yet all networks carry full program schedules on stations in both Washington and Baltimore; they will do the same in Hartford and Springfield, as indeed they are now doing.

Dr. Frank Stanton, president of CBS, has testified that if WGTH-TV on channel 18 in Hartford were transferred to his company, it would not be necessary or desirable to delete channel 3 from Hartford. This transfer has now been approved by the Commission, and the new owner of the station, that is CBS, does not want, much less request, that channel 3 be taken out of Hartford.

Financial data filed with the Commission by WKNB-TV shows that as long ago as October 1954 the station operated at a net profit of over \$20,000 for that month. WKNB-TV sold its station to NBC for \$1,100,000, plus a lucrative long-term lease on the studio building owned by WKNB-TV, plus the retention with the station for a number of years of certain management officials.

The sales price of WGTH-TV, which had less equipment and a smaller investment, was \$650,000. In both instances the sales price was approximately double the value of the assets of the stations. It would seem that these UHF operators valued their properties quite highly even with the imminent operation in the area of a station on channel 3.

In fact, WKNB-TV in a prospectus dated December 22, 1954, relating to the public offering of its stock, stated as follows:

"The current affiliation agreement with CBS is for a 2-year period, beginning January 28, 1953, and will automatically be renewed for an additional 2-year period, beginning January 28, 1955. The terms of the contract include a provision that neither party can cancel except on 1 year's notice. The affiliation with CBS provides WKNB-TV with many excellent programs. Revenue from network programs accounts for approximately 15 percent of the net billings, compared to 25 percent from national spot advertising and 60 percent from local advertisers. The management believes that in the event the affiliation were discontinued, the company could continue to operate at a profit by using local programs, film and such network programs as were available."

None of the 4 UHF stations of which I have spoken is operated at anywhere near the maximum power—1 million watts—permitted by the Commission. The actual operating powers are:

	Power (kilowatts)	Percent of maximum power
WGTH-TV	187	19
WKNB-TV	210	21
WWLP	206	21
WIIYN-TV	182	18

Testimony before this committee shows that equipment is now available to obtain the maximum of 1 million watts at less than the cost incurred by a VHF channel in obtaining 316,000 watts.

It seems to me that these UHF stations, by failing to utilize their maximum facilities and by proclaiming the inadequacy of their existing service, have gone far toward convincing advertisers and advertising agencies that their stations should not be used.

A number of proposals have been presented to the Commission, starting as far back as October 1954, to delete channel 3 from its present assignment in Hartford and substitute instead a UHF channel. The first of these proposals, filed more than a year and a half ago by the four UHF stations which I have just discussed, would have changed the status of channel 3 so that it could be used only for noncommercial educational purposes.

In effect, this would have removed the channel from any use at all in the foreseeable future, since the educational interests of the State have no plans to build and operate a television station. When this became apparent, the UHF petitioners amended the proposal so as to adopt a request made by another party to remove channel 3 from Connecticut entirely and reassign it to the small town of Westerly, R. I., from which place it would be used, in effect, as a third Providence VHF outlet. In addition to the request to delete channel 3 from commercial service altogether and the request to remove it to Westerly, there have been proposals to reassign it to Norwich or New London, Conn.

All of these proposals lack justification from the public-interest standpoint. Hartford has a population of 177,000, and the population of Hartford County is 510,000.

The State of Connecticut had in 1950 a population of 2 million and in 1955, was 2,250,000. Not only is Hartford the capital of Connecticut, but it also is the social and economic center of the very heavily populated and important industrial and agricultural region.

The terrain in a large portion of our area is rough and hilly and as a result contains many sections where penetration by UHF service is very spotty, due to shadowing. Therefore, the assignment of channel 3 to our area is essential in order to provide all of the people living in our service area an adequate television service.

The reassignment of channel 3 to Westerly, Norwich, or New London would result in 50 percent or more of the signal being wasted over water, thus resulting in a much less efficient use of the channel than at Hartford. Connecticut was allocated only two VHF frequencies. One of these is in New Haven on Long Island Sound, the other being channel 3 in Hartford. We believe that it would be grossly unfair and inequitable to deprive the people of Connecticut of local television service from channel 3 in order to give this frequency to the smaller State of Rhode Island with a 1950 population of approximately 800,000 (1955, 853,000), a State which is already served by two VHF signals from Providence and by additional stations from Boston.

The primary reason advanced for the removal of channel 3 to Westerly, New London, or Norwich is to deintermix the Connecticut River Valley, but it is clear that such deintermixture would in no sense result. Although television set conversion in and around the Connecticut Valley is an accomplished fact and receiver set sales are 100 percent all-wave, there are still a substantial number of viewers in the northwestern and northeastern sections of Connecticut who have VHF sets only for the simple reason that no good UHF signal is available to them. Channel 3 would bring to the people in these areas either their first good television service, or would bring them their second usable signal.

If it is deemed desirable to allocate another VHF channel to Providence, there is no need to deprive Hartford and the State of Connecticut of channel 3. Our consulting engineer has advised me that channel 6 can be allocated to Newport, R. I., with but the need for a very minor relaxation of the Commission's rules insofar as minimum mileage separations are concerned. Channel 6 can operate at Newport with maximum power and antenna height and deliver an excellent (city grade) signal over Providence, fully competitive with the two existing VHF stations in Providence.

In conclusion, it is conceded that the UHF stations in the Connecticut River Valley have no conversion problem. The area is almost 100 percent converted to UHF and every receiver now being sold is an all-wave set. It has been said before this committee that if the conversion matter were solved there would be no problem of deintermixture for the UHF stations because listeners would be attracted to stations having the best program schedules. There is thus no reason to deintermix the area. The terrain is hilly, rough, or mountainous through much of the area that will be covered by channel 3, with resulting shadow areas inevitable for UHF signals. The UHF stations in Hartford and Springfield-Holyoke are all operating at a profit and would continue to do so even with the advent of competition from channel 3. The Hartford and New Britain stations have been sold at a good profit to NBC and CBS, and these companies are extremely well qualified by experience, know-how, and adequate financial resources to assure the successful operation of the stations. The Springfield and Holyoke television stations will not lose their network affiliations. Although the UHF stations in the area are operating with only a small fraction of the 1 million watts allowed, they can procure equipment necessary to bring the power of their stations to 1 million watts by an expenditure of a sum no larger than would be required for a VHF operator to build a station with maximum power. The moving of channel 3 to New London, Norwich, or Westerly would not deintermix the area and would waste substantially half the signal over water.

In view of all of the above, I most strongly urge the retention of channel 3 in Hartford.

Senator PASTORE. We appreciate that concession on your part.

Mr. MORENCY. Thank you.

As I say, we applied in 1947, in September to be exact, and we were required to prepare for a hearing because there were other applications for the frequency. At that time channels 8 and 10 were assigned to Hartford. We prepared for that hearing.

Just as it was to commence—it had been assigned a date early in January 1948—an application was made by one of the applicants to remove the channel from Hartford to Bridgeport, Conn.

The Commission considered this application and found that it was necessary to substitute rulemaking, and that led to one consideration, and one delay of our hearing after another, until we ran into the freeze which was imposed on the whole industry by the Commission, in order that they study the nationwide allocation plan.

So, actually, it seems that this is a second time around for us. After the sixth report and order, when channel 3 and other channels were assigned to Hartford, we made that application, and we also had other applicants for the channel.

Senator PURTELL. May I interrupt. That was back in 1952 when channel 3 was—

Mr. MORENCY. Yes, sir. The sixth report and order was issued in April, I believe, of 1952, and therefore that was already 5 years after we had applied for television in Hartford.

So there were two other applications for the channel. One of them joined with us and withdrew their application and executed a contract whereby they would become part owner of our organization in case our application was a successful one.

Now, our hearing actually didn't begin until October of 1953 and wasn't concluded until the following April of 1954. It was a lengthy hearing, an arduous one; and the examiner took a year, or a year and a month, to render a decision which was favorable to my company.

Exceptions were taken to this initial decision, and the oral argument on this case was held just Monday of this week before the Commission. Now we are hopeful that a final decision will be released in the near future which will authorize us to go ahead and get on the air with a television station which we applied for almost 9 years ago. It will be 9 years in September.

Senator PASTORE. What is the status of your application now? Have you been granted by the Commission, the—

Mr. MORENCY. No, Senator; they just heard the argument 2 days ago. So normally I would think it would take them from 90 to 120 days to render a decision on it. At that point, if it is favorable to us, we would be at the point where we could build.

Senator PASTORE. How many petitioners or applicants are there for that channel?

Mr. MORENCY. Two. There were three. One joined with us; so the hearing was held just with two parties.

Senator PASTORE. All right.

Mr. MORENCY. Now, we are prepared to get on the air with our TV station, if we are granted it, in from 60 to 90 days. It just happens that our transmitter location will be the same as our AM transmitter so we have a building facility. Other things are so that we can get on the air quickly.

We have made preparations in that area. We are going to have color equipment both for local and network programming. We have made extensive contacts with religious, educational, and civic groups and organizations, so we know they will participate on a regular basis in our program schedule on television.

Now, the 4 UHF stations in the Connecticut River Valley—that is 1 in the New Britain, channel 32; 1 in Hartford, channel 18, and 1 in Springfield, and 1 in Springfield-Holyoke, petitioned the Commission some time ago to delete channel 3 as a commercial television facility in Hartford and change it over to the educational category.

Well, after it became apparent that the educators in the State were not going to build, they reversed their field a bit and adopted a proposal from Westerly, R. I., that would remove the channel from Hartford and Connecticut entirely and put it in Rhode Island.

Then after that we also had two other applications for its removal from Hartford, one from Norwich, Conn., and one from New London. The hearings, of course, as the committee members know, were held on those petitions; they were denied.

Well, now, I would like to examine just a little bit the position of the UHF stations in the Connecticut River Valley.

They had no contest on their channel, so they were able to get on the air early. Let me see: In Connecticut, New Britain got on the air, I think in February of 1953; and in Springfield, one got on the air in March, and I think one in April of 1953. The last 1 of these 4 got on the air, I believe, early in 1954. That was channel 18, in Hartford.

Now, they had, as I say, no contest. They got on the air early.

There was a great need for television service up there and they have done a fine job in the conversion factor.

In fact, I think they all agree, and it has been so testified before this committee, that the conversion factor in this area for these 4 stations is about 93 percent. But even more important than the 93 percent is the fact that all of the sets sold in this area for the past several years, and continuing now, are of the all-wave variety.

There is no problem here of circulation, in other words. We have a densely populated, prosperous area of New England and they are all able to—practically all in this area—able to receive the UHF channels.

I would like to quote, for instance, from a little newsletter that WKNB-TV issued 3 weeks ago. The headline on their news release was: "The Biggest, Healthiest, Three-Year Old You Have Even Seen." They also stated: "When WKNB went on the air, there were only 13,000 sets in its area which were equipped to receive its signals. In 3 years, the channel-30 family has grown to 375,000 homes."

Apparently they completely—I think Mr. DeWitt just testified that in the area of WSM-TV, there are only 200,000 VHF sets in his whole territory. It gives you an idea of what condition exists in this Connecticut River Valley where one UHF station has a circulation double the station of Mr. DeWitt's in Nashville.

To continue the quote:

The American Research Bureau reported last month that 93 percent of the television sets in Hartford County are equipped for UHF—a conversion rate almost unmatched elsewhere in the country.

Well, that is the conversion problem which most people have conceded in the particular problem of UHF.

If they have circulation they have the prime requisite for a successful television station. Only one other ingredient, to my mind, is necessary, and that is good programming. So, if we concede that they have the circulation, and if we concede that that is the prime requisite and only a second factor is necessary, then let us examine just what they have in the way of programs in this area.

Well, at the present time WKNB-TV in New Britain, on channel 30, and WWLP, Springfield, on channel 22, carry substantially all the schedules of the National Broadcasting Co. The other two stations, channel 18, WGTH-TV in Hartford, and WHYN-TV, Springfield-Holyoke, channel 55, carry substantially complete schedules of CBS. In addition, I believe, WWLP carries some programs of the American Broadcasting Co.

I would just like to insert here that these Springfield stations—Springfield-Holyoke—had higher frequencies in the UHF band. They had 60 and 55, I believe. They petitioned the Commission, and the Commission granted them the right to go to lower frequencies. So now one is on channel 22 and one has been granted the right to go to channel 40, though it hasn't made the move yet.

So they have the full schedules of the two top networks. They have full conversion. They have a hundred percent sale of all-channel sets.

Senator PASTORE. And what network will you be affiliated with, or don't you know?

Mr. MORENCY. We don't know for this reason, Senator; we won't be able to get CBS or NBC, because they are tied up with these four UHF stations.

Senator PASTORE. Well, do they own them?

Mr. MORENCY. The CBS has just had approved, by the Federal Communications Commission, the purchase of channel 18, WGTH in Hartford. That is an accomplished fact. The other one, WKNB-TV, has been purchased by NBC. That contract is before the Commission for approval. It lacks only the FCC approval to become a fact.

Senator PASTORE. Is that a Hartford station, too?

Mr. MORENCY. Well, it is called New Britain. But, it is built to serve New Britain and Hartford and the same area in a channel 18 service, that is right.

In the original allocation, the Commission called New Britain-Hartford one market. In the sixth report and order, they are now called two markets, and New Britain is assigned a UHF station and Hartford is assigned a different one.

Senator PASTORE. Therefore, it cannot be argued, in your particular case, that if you get the permit to operate your TV station, that you will prejudice, in any way, contracts that CBS and NBC have with the UHF stations.

Mr. MORENCY. I can't see how we could, Senator, because I doubt whether they would make a contract with us when they own stations in the area.

Senator PASTORE. Well, that is an unusual situation.

Mr. MORENCY. Actually I think the Hartford situation is unique in the country, perhaps, because of that situation—that and the conversion and sale of sets factor. So, now, we have the 2 top-rated networks—ABC is coming on fast, but certainly doesn't compete now in program quality with the other 2—and they are giving their full schedules to these 4 stations. There has been a sale approval of one to CBS.

Now, I would like to comment that even if the Commission did not approve—and I have no information on it—even if they didn't approve the sale of the New Britain station to NBC, it would not affect the UHF problem of circulation here, because CBS will have to use their station in Hartford and also the station in Holyoke-Springfield to cover those two markets.

There is an analogous situation here, right here in Washington and Baltimore. Here we have 2 cities about 30 miles apart or so, and each network carries the full program in Washington and also on a station in Baltimore.

The same thing would be true up there.

Now, no one in this area would buy a set which was incapable of receiving the CBS programs; because it would be like buying a set that would be capable of receiving only half of the top programs of the country. So we can say that they will be—we can say that there will be guaranteed sale of all-wave sets in this territory from now on. That has also been true for the past several years.

Now, I just want to comment on the fact that Mr. Putnam of WWLP—he was a recent witness before this committee, and he stated among other things, that he didn't think that his station, nor in fact,

any of these UHF stations, could long survive the advent of channel 3 on the air in Hartford.

Now, I must admit in the light of the conditions and the facts as they are, and the ownership of one of these stations by a network, that that statement just does not hold water. It just isn't so.

In fact, let's see what Mr. Putnam, also through his publicity department, released about 10 days or 2 weeks ago—a statement to the effect—it is here in my statement—that for 1955, over 1954, his total billings were 30 percent better, and his national accounts were 50 percent greater in number; and that he had an increasing number—if I am quoting him correctly—of “blue chip” accounts. I don't think the statement he made before this committee, upon examination, could stand up.

Now, a further point: Since the transfer of this—actually I don't think the transfer of this channel 18 to CBS has physically been made, but the approval is out—and Dr. Frank Stanton, before the Commission, stated that if that transfer were made to his company, he would not want, or expect or find desirable, the deletion of channel 3 from Hartford.

Just one comment on what appears on page 7 of my statement: That these stations were sold for substantial sums; in fact, about twice the value of their assets. They were held quite highly by their owners and I would like also to refer specifically there to the quote from a prospectus relating to the public offering of stock by WKNB-TV that appears on the top of page 8. This refers specifically to the conceivable loss of network program service.

On the bottom, where we have supplied emphasis, you will note this one sentence. It says:

Management believes that in the event of affiliation contract is discontinued—in this case he is talking about a CBS affiliation—it is now an NBC affiliation—same effect—

the company could continue to operate at a profit by using local programs, film, and such network programs as were available.

There is undoubtedly—and I believe that is a true statement—I believe it is factual—he is now speaking of the fact that you can program a station in his opinion, that is, in the WKNB management's opinion, without network service and still have a good service and a profitable, economically sound service. I believe he is right. It is being demonstrated in cities where there are allocations of 6 and 7 frequencies. They have to be good markets, I grant, but this is a good one.

Now, all of these things that we have been saying about UHF, the conversions, the sale of all-wave sets, the economic soundness of their present operation—have accomplished all this without even going to the power which has been allowed them under their license.

The table on page 8 shows just what that power is that they have been operating with.

Senator PASTORE. Mr. Morency, could I ask you a question. I have been curious about this: What would be the disadvantage to you, in the public interest, in service to your community, if the station which you are applying for, a V, were a U instead, which would be consonant with all of the activities within that valley? I mean, that is

what I am curious about. I wish you could answer that question, if you can.

Mr. MORENCY. I will be glad to answer it.

Senator PASTORE. You see, the objections made by those who operate UHF stations within that area take the position that somehow you are going to have an advantage over them—you will have more power or your range will be greater; whereas, if you were given a UHF station, you would have no more than they have, and people are already equipped with sets to receive your signal, and that for that reason it would be in the public interest. Then that VHF channel, the chances are, could go in service in another area where it would be all of one type.

Now, I realize I have said here several times that channel 3 ought to go to Providence. Senator Purtell has perhaps resented that. I don't say even Westerly. Let it go to Poquonock—that is still in Connecticut, right across the river. But the thing that we have been troubled about is this. If you could have all 1 type of frequencies in 1 area and serve everyone with 3 channels, and have all of the other type in Hartford and still have 3 channels, what would be the hardship in that particular case?

If you can't answer it, or if you feel you don't want to—

Mr. MORENCY. I would be delighted to. I think I can.

Senator PASTORE. All right.

Mr. MORENCY. First, you said that they say that there is a difference in power. Well, there is no difference in power, Senator. The Commission, and the engineers of the Commission, and the industry, decided the differences in power. On the low VHF channels, you are allowed 100,000 watts. On the higher VHF channels, you are allowed 316,000 watts. On the UHF channels you are allowed 1,000,000 watts. Those changes in powers, in what you call effective radiated power, are to compensate for the differences in propagation characteristics of the various frequencies. So there is no change and no difference in power.

Now, as to why we shouldn't have a UHF—and I don't think we should. Let's take the public interest, which is paramount here, first. This is quite a hilly and mountainous country northwest and northeast of Hartford. We get into the Berkshires on the northwest, as you know; and we have a great deal of real rough terrain.

Now, regardless of what the "slip-stick" says, or the extension of the service says, for UHF—and they will draw a circle out there—but in the interstices behind the hills and under certain conditions there is spotty coverage. I think all engineers who have studied the matter say so. They all agree on that.

Channel 3 on the other hand will give good service to those areas. Now, that is the principal thing. There are areas here in our State, Senator, where even now—where the UHF signal says it is there—but those are the few sets that are not converted, or the comparatively few, because actually there is no signal there that they can take advantage of.

I was about to say that even these UHF channels have not used their high power. They haven't used the power that they are allowed to use. They could improve the picture somewhat. They will not, however, be able to get behind the hills and into the valleys where UHF has a weakness—it is spotty.

Now, I think that the public in Connecticut and western Massachusetts, in this very rough terrain—and we have rough terrain even in between, even in eastern Connecticut, and in northern Connecticut—they have a right to a good signal, or 2 good signals, before other people get 3 or 4 signals.

I agree with you, because I heard you say it, that New York City should not have 7 channels—never should have had 7 channels. I think the citizens of Rhode Island and Connecticut are just as first-class as those in New York City, and they should have the same availability of service. I think the citizens of Connecticut should have this channel 3 service, because it will do some things that these UHF channels will not do.

Now, I want to make another point. In bringing, now, television service to this area, which they do not now have, we have been through a long and arduous hearing. I have asked about this. Our legal counsel says that there is nothing about the hearing we just went through that would apply to a change—if you deleted channel 3 and put in a UHF. This hearing would go for naught, as far as we know. Everybody else could get in the act then. We could go through it again and come back here in 1959.

I think that the—I have been at this 9 years now, and I could stay at it another 9—but I think the people of Connecticut deserve to have this channel acted on, and have it stay here where it has been allocated after a long, really a long, study.

Did I answer your question, Senator?

Senator PASTORE. Yes; I think you have.

Mr. MORENCY. Thank you. I think I mentioned that there were proposals from Norwich and from New London as well as Westerly, R. I.

One of the prime justifications for all three proposals was that it was going to deintermix this area. Well, it won't. In the hearings before the Commission, the maps and everything submitted there show clearly, for instance, that from Norwich, channel 3 gives grade A service to the city of Hartford and most of Connecticut.

From New London, grade A service comes right on the door. From Westerly, grade B service, to Hartford and all of eastern Connecticut. You don't deintermix this valley by changing the location. All you do is take this channel out of Hartford, and out of Connecticut, and take away the ability of the Hartford people to program their own station.

I want to point out that with the transfer of one of our stations to CBS, and the possible transfer of the other to NBC—as well as those networks will run the stations; they won't run them like Connecticut people run them.

Senator PASTORE. Well, I don't go along exactly with that. I can understand your first argument that this clear signal would come to certain parts of Massachusetts and Connecticut which cannot be reached by UHF channels now existing. That is the first argument that you made.

Your argument, I think, in essence was that in the public interest, it would be bringing service to people who are not now enjoying it, and could not enjoy it even with the third U in Hartford.

But as far as the programing is concerned for the people in Hartford, why would that make any difference? The third U would give them a third program with a clear signal.

Mr. MORENCY. I used the wrong area there, Senator, because—well, I see your point.

Senator PASTORE. So far as Hartford is concerned, you would have an argument that there may be some areas that cannot now be reached by an existing U, or even a third U, in Hartford. I can understand the potency of that argument. But insofar as programing in Hartford itself is concerned, it would not, essentially, make any difference whether you had a third V or whether you had a third U.

Mr. MORENCY. Operated by Connecticut people.

Senator PASTORE. There would be a third channel available to people who have all-channels sets.

Mr. MORENCY. That is right. If it is operated by Connecticut people.

Senator PASTORE. Yes.

Mr. MORENCY. But to get Connecticut programing to Connecticut people, channel 3 should be operated as we are planning to operate it; or somebody from Connecticut, and not a network organization remotely controlled from New York City. That is my point.

Senator PASTORE. Oh, from New York City.

Mr. MORENCY. That is my point.

Senator PASTORE. Well, I go along with you, Mr. Morency. I think that that is where the basic trouble lies. You have too many channels in New York City, and if you could only move 2 or 3 out of New York City, you would improve the whole New England area by reallocation of those channels, which would give everyone more stations to enjoy, and more services to receive. But it is all concentrated down there. And the fact of the matter is that the lower part of Connecticut suffers because of it. That is, from a local point of view.

If a local merchant wants to advertise in sections of Connecticut adjoining the city of New York, he has to go to the New York station and pay the New York prices, in many instances for a patronage that is only local. And for that reason, of course, he is denied the services of television advertising, which is a serious problem.

Mr. MORENCY. That is right. One of the things on which I haven't made too much of a point here in my statement is this. We are trying to judge a brandnew industry at the end of actually only 3 or 4 years of expansion. We are trying to say that it has now set a mature pattern and we should judge all things on what now seems to be the fact. That never was true in radio. Radio took years and years and years, and is still changing.

For instance, just in the last few months, the dams have seemed to burst in the direction of program material available from Hollywood, due to consent decrees and willingness of the big companies to contract for the distribution of their product, and so on.

It is going to be much different in the next few years. The manufacturers are going to automation, in great degree, in the operation of television stations. It now takes a great many men to put on one simple program. It is going to be much different in the future years. I do not think it is going to be forever denied for Knoxville, for example, to be able to support 3 stations or 4 stations. That judgment is being made on what it costs to run a station now. I do not think that is going to be forever the truth. And yet this industry is only a very few years old. I think we are making judgments a little quickly.

Well, that about concludes my statement, with the conclusive statement on pages 11 and 12.

For the reasons that I guess I have outlined and digested, I think that our claim on channel 3 for service in Connecticut is a strong one, and it should be retained there. I would like to speak just a second, Senator Pastore, if I might, on the situation which you have in Rhode Island. We gave that some thought, too.

Senator PASTORE. Yes. I am very much interested. And I don't think there is any desire on the part of anyone to take anything away from Hartford. I mean I am merely arguing this on the question of intermixture. What I am anxious to get is a third station in our own locality, just as you are going to have a third station in Hartford.

Mr. MORENCY. Well, we don't have a third station.

Senator PASTORE. The only possibility of having a third station in Rhode Island is to have a third V, merely because you don't have the conversion and it won't be of any useful purpose to the people of the metropolitan Providence area unless you have a third V. Now, I am not saying it has to be 3; it could be 6, as you have suggested here. It could be anything. But apparently that has got to be ironed out, just as you have pointed out, because we are going in the direction now where large metropolitan areas should not be confined to two stations. They ought to have three channels and maybe more, if possible, so that you can bring the prices of advertising down to a competitive level. Otherwise, in time, it is only going to be for the big operators. And that is not fair.

Mr. MORENCY. I am not an engineer. What I know of engineering is what has rubbed off on me in the last 25 years or so. But I asked our consulting engineer, who is A. D. Ring and who was formerly the chief broadcast engineer for the Commission some years ago, and he gave me this memorandum, and also a map on the use of channel 6 in the Rhode Island area. We have had a few copies of that made, and I will be glad to furnish the committee with that statement.

Senator PASTORE. Yes. We would appreciate it.
(The document above referred to is as follows:)

A. D. RING & ASSOCIATES,
Washington, D. C., March 12, 1956.

Memorandum to Mr. Paul W. Morency.

Subject: Additional VHF television channel for Providence, R. I.

In accordance with your request, we have made a study of the various proposals and the possibility of assigning another VHF television station to render service to Providence, R. I., and the surrounding areas.

It was found that channel 6 may be assigned to Newport, with the transmitter at the point indicated on figure 1. Figure 1 is a map on which we have shown the transmitter site near Newport, the city boundaries of Providence, and the coverage contours; namely, city-grade service, grade A and grade B. This study discloses that the city service contour includes all of the city limits of Providence. The grade A contour includes substantially all of Rhode Island and a small portion of Massachusetts and Connecticut. There are several substantial towns in the portion of Massachusetts included. The grade B contour includes a substantial part of Connecticut, Massachusetts, and all of Rhode Island.

The location specified for the transmitter for operation on channel 6 with maximum power and antenna height (100 kilowatts, 1,000 feet) does not comply with all the mileage separations specified by the Commission. The attached table I shows the specified mileage separations, actual mileage and shortage.

In the case of adjacent channel 5, there are five applications pending for this channel at Boston. The transmitter site proposed by each is considered separately in the mileages.

A. D. RING,

Registered Professional Engineer, District of Columbia Registration No. 790.

TABLE I.—Separations on channel 6 at Newport Neck site

[In miles]

Channel No.	Station or applicant	Specified separation	Actual separation	Shortage
6	WCSH-TV, Portland, Maine	170	167.5	2.5
6	WRGB, Schenectady, N. Y.	170	159.5	10.5
5	Applications at Boston, Mass.:			
	Greater Boston Television Corp. ¹	60	59.0	1.0
	Allen B. Dumont Laboratories, Inc.	60	61.5	None
	Massachusetts Bay Telecasters, Inc.	60	61.0	None
	WJFH, Inc.	60	59.0	1.0
	Post Publishing Co.	60	59.0	1.0

¹ Initial decision recommending grant.

Mr. MORENCY. Mr. Ring says that channel 6 can be used, the transmitter to be at Newport. And the map which he furnished shows that not only will it cover Providence, but the transmitter will give a signal in Providence of what is called city-grade service, which is the top-grade service. It would be fully competitive with the two V's which are now assigned there and would solve the problem for the State of Rhode Island. It requires a slight deviation from the Commission's mileage standards. But they are slight, we think, and it would not take much to make that change.

Senator PASTORE. I would appreciate having that. Are there any questions?

Senator PURTELL. No; except that while there is a question as to who shall get channel 3, channel 3 was allocated to the Hartford area a long while ago, many years ago. And the people that are presently engaged in this controversy as to the assignment of the station itself, both parties are in agreement that it should be retained there regardless of who ultimately gets it; is that correct?

Mr. MORENCY. I am sure that is right.

Senator PURTELL. There is no question on the part of those presently engaged in trying to have this matter determined as to the need, in Hartford, for a very high-frequency station?

Mr. MORENCY. There is no disagreement on that.

Senator PASTORE. Mr. Cox would like to ask some questions.

Mr. Cox. Yes. I can quite sympathize with your difficulties in this very protracted proceeding. But it would not be your position, would it, that your legal difficulties have given you any legal claim upon the channel now in Hartford?

Mr. MORENCY. Not at all. I think that over the years—certainly we had no equity as such. But certainly consideration should be given, and there should be no lightly considered decision which would delete this channel and delay, for another 3 or 4 years, even the acquisition of a UHF channel.

Mr. Cox. When a third station goes on the air, whether it is on channel 3 or on a U if one were substituted for it, the operator on that channel would have an established set circulation of, I think you said,

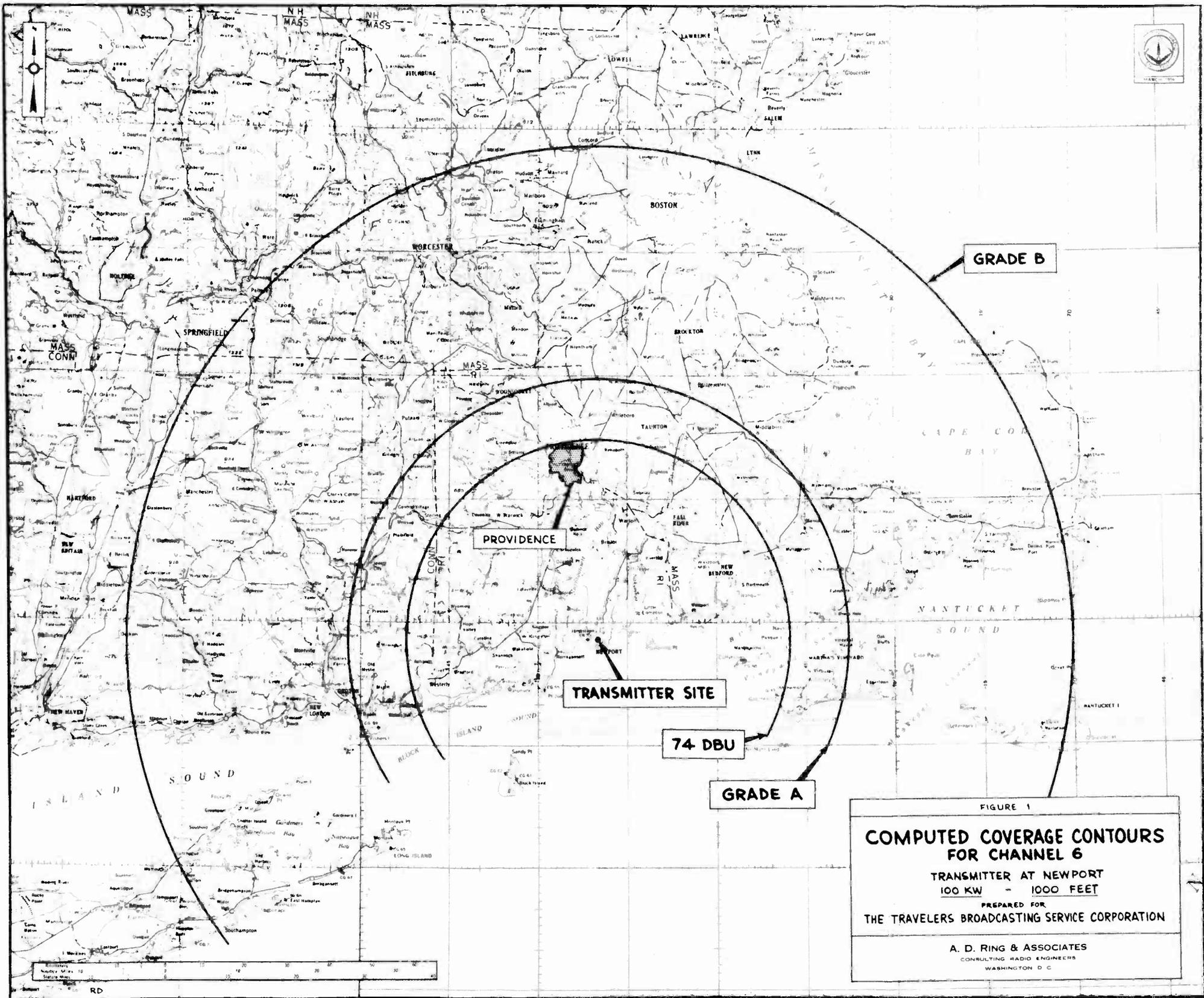


FIGURE 1

**COMPUTED COVERAGE CONTOURS
FOR CHANNEL 6**

TRANSMITTER AT NEWPORT
100 KW - 1000 FEET

PREPARED FOR
THE TRAVELERS BROADCASTING SERVICE CORPORATION

A. D. RING & ASSOCIATES
CONSULTING RADIO ENGINEERS
WASHINGTON D. C.

375,000 sets which was not there, certainly, when the first U went on the air.

Mr. MORENCY. That is true. WKNB's statement is that there were 13,000.

Mr. Cox. In other words, a latecomer at this stage, regardless of how he gets there and what channel he gets, already has a substantial number of sets, and they are all-channel sets, so it makes no difference what channel he gets?

Mr. MORENCY. Mr. Cox, I really don't like to be designated a latecomer.

Mr. Cox. No, you are a firstcomer—the last one on the air perhaps.

Now, is it your position that channel 3 operated in Hartford will provide a first service?

Mr. MORENCY. Yes, a first good service, definitely, in lots of areas in this northwest section and southwest section of Massachusetts of which I speak.

Mr. Cox. You mention, though, that there are VHF only sets in that area. So, I assume they are getting a signal from more distant points?

Mr. MORENCY. Yes, mostly from channel 8 in New Haven. But I would like to differentiate between a good signal and what people will say is a watchable signal. Most of these people in these areas of which we are now speaking have never see a good television signal, and they deserve to see one.

Mr. Cox. Are these areas within the predictable coverage of your station under the Commission's standards?

Mr. MORENCY. Yes, they are.

Mr. Cox. I think you said there is no difference, really, in power between VHF and UHF stations because of the fact that the Commission had stepped the power up for the higher channels.

Mr. MORENCY. Yes.

Mr. Cox. How about coverage, though? Would a UHF station, operating even at a million watts, have coverage equal to yours at a hundred thousand watts?

Mr. MORENCY. Not quite, no; not in the B coverage. But, as a matter of fact, I think the projections show that they have a greater radius in the A coverage than does channel 3.

Mr. Cox. Class A coverage is somewhat greater geographically, but they drop off more quickly in the other contours?

Mr. MORENCY. The class A coverage is farther, yes.

Mr. Cox. You have pointed out that the four U stations now operating in the Connecticut Valley are not at maximum authorized power. If they were to step up their power to 1,000 kilowatts, would they get substantial additional coverage?

Mr. MORENCY. Substantially what?

Mr. Cox. Additional coverage?

Mr. MORENCY. They would do several things, I think. First, they would make their signal, within the territory they now claim as good coverage, much better.

Mr. Cox. Would it be enough better to overcome the shadow effect that you talked about behind the hills?

Mr. MORENCY. No, sir.

Mr. Cox. It would provide a more sharply defined picture in the area which is not shadowed?

Mr. MORENCY. That is correct. And the difference between a good picture and one that is passable—in my own home, for example, if I want to listen or watch a particular program that is on no other place, I will watch a certain UHF channel which delivers to my house a third-rate signal. If I could get it on a better picture, I would never watch that station.

They need to up their power to give a better picture within their coverage area. I am not talking about beyond. They could do a much better job with a megawatt, a million watts, than they are now doing with 200,000 watts.

Mr. Cox. However, this does not give them—there is little or no economic incentive for that, wouldn't that be true in your area?

Mr. MORENCY. Oh, no, that would not be true at all, because what they are suffering from now is a great many second- and third-rate pictures in households where they ought to be first rate, because they don't have power. What would you think of the VHF channel if they had one-fifth the power of these UHF channels? I don't think we would think much of a VHF channel that operated with only 20 kilowatts.

Mr. Cox. Would that give you coverage on channel 3 at a lower grade of service?

Mr. MORENCY. Twenty kilowatts would give you coverage of a sort. I am not prepared to tell you just how much less it would give you than the hundred kilowatts, but substantially less.

Mr. Cox. Is your statement in your testimony here to the effect that equipment is now available at this maximum of 1,000 kilowatts at less cost than is incurred by VHF channels in obtaining 316,000 watts? Was that based on the testimony before this committee, or do you have independent information on that?

Mr. MORENCY. No. That is based on what I heard here and knew was to be presented.

Mr. Cox. You mentioned the fact that there are areas in Connecticut that are shadowed from the present U stations and would be shadowed from your station if you were given a U channel in lieu of channel 3. Isn't it possible to fill those areas in by the use of translators or some other devices, without having a V station in the area to provide that?

Mr. MORENCY. You are now getting over my head, because I am not an engineer. There have been some moves in this direction, in the direction you are talking about. But none of that has—no determinations have been made in that area to my knowledge, and I have watched it pretty carefully. And, so, I would be unable to answer you. I think if you put in a hundred and fifty "kickers" you could cure most of the shadow areas, maybe. But I am talking about small spots where maybe for 700 yards in 1 valley you can't get these UHF signals. Maybe skip a mile; then there are 2 miles that you can't get it.

It is a very difficult problem of solution if you don't do it with VHF from one point; and there is no reason not to, in my opinion.

Mr. Cox. I think it is clear, as Senator Pastore said, that you are in a rather unusual position as far as the network affiliation picture is concerned, in that the two U stations there are likely to be owned by networks. I don't know whether you ever indicated, in answer to his question, what your status was with regard to ABC. Have you been negotiating for an affiliation?

Mr. MORENCY. No, we haven't. We have in our grant from the Commission—before the hearing we talked to all the networks, practically. You are now asking me what affiliation channel 3 would have?

Mr. Cox. Partly that. And in connection with this quotation that you make from the prospectus of one of these stations in selling stock, you indicated you agreed with him. That is, is it your position, for instance, that channel 3—that you could operate on channel 3 in Hartford without a network and find sufficient programing sources, either from the third network or from independent film sources, to provide a good class of service to the people of the area and a good operation?

Mr. MORENCY. That is our position precisely. We would try to get the best that we could get from ABC. And we would then do a real job on what is available for our major programs on film, and then, thirdly, we would do a maximum local job with local live programing.

Senator PASTORE. What is this about selling stock? Isn't the Travelers Broadcasting Service a subsidiary of the Travelers Insurance Co.?

Mr. MORENCY. It is.

Mr. Cox. This was a sale by one of the other stations. They sold some stock.

I take it, then, that you feel that the continued allocation of channel 3 to Hartford, for the reasons you have given, is in the public interest in the sense of providing a good service to people who do not now see it. Is it also a condition to your being interested in a station in the area? In other words, would a UHF channel be as attractive to you economically as the V channel, quite aside from whether certain people would get that service?

In other words, would you not be fully competitive in the area?

Mr. MORENCY. It would be fully as competitive, perhaps. But remember, channel 3 is going to start out without the major network program service, and it is a condition that not many people in the country have really leaped at, even in the VHF cities where they have had, we will say, 3 channels. Some cities where the fourth VHF grant has been made—I think it has not been built in some places.

Mr. Cox. Well, now what is Hartford's rank among the national markets?

Mr. MORENCY. Well, it depends on what you include. We will say around 28 or 30.

Mr. Cox. Well, now, do most of the markets in that area now support 3 stations, either 3 U's or 3 V's, or do you know that?

Mr. MORENCY. Well, I know that there aren't that many television stations in New England. Boston has only—because of hearings, I think they have only 2 V's on the air, and Providence has 2 on the air, and New Haven has 1 VHF.

Mr. Cox. Well, then, your position substantially is that you think that Hartford will support 3 stations if 1 of them is a V, but that it might not support 3 stations if they were all U's?

Mr. MORENCY. No; I didn't mean to say that. I think Hartford will support 3 or 4 stations, period. And—

Senator PASTORE. May I interrupt to say I agree with you?

Mr. MORENCY. Thank you.

Senator PASTORE. And so can Providence.

Mr. MORENCY. Good. [Laughter.]

Senator PASTORE. We are only hoping that we can get them.

Mr. Cox. That is all I have.

Senator PURTELL. Well, actually, aside from your particular direct interest in this matter, it is a fact that the Communications Act itself provides that there be an equitable—fair and equitable—distribution of these channels. I understand also, from your testimony here, that there are spots in the State of Connecticut—and I have it from other sources too—that cannot get a good signal except from any very high frequency station. Is that correct?

Mr. MORENCY. That is right.

Senator PURTELL. So in addition to having another station, your testimony indicated you would not only have another station, but you would have a station that would be a very high frequency station, which would be able to cover more people in the State of Connecticut who are presently not getting good signals, and would serve a better purpose in the public interest.

Mr. MORENCY. That is true. Section 307 (b) of the statute calls for equitable distribution.

Senator PASTORE. The reason why I raised that question about New York—as long as you have seven in New York and a scarcity of them in other parts within the radius that can be serviced from there, you have a problem. If you had more equitable distribution, I think that that would be a step in the right direction. How you are ever going to do it, I don't know. That is the problem.

Thank you very much, Mr. Morency.

Senator PURTELL. I might say, before you go, that in the light of the fact that we have had many most pleasant passages between Senator Pastore and the junior Senator from Connecticut, I was very happy to have you offer what appears to be a very fine solution to the problem of the Senator from Rhode Island, by suggesting that channel 6 be allocated there.

Mr. MORENCY. Thank you.

Senator PASTORE. I hope he is right. We will adjourn at this time until tomorrow morning at 10 o'clock.

(Whereupon, at 4:17 p. m., the committee was recessed, to reconvene 10 a. m., Thursday, March 15, 1956.)

TELEVISION INQUIRY

THURSDAY, MARCH 15, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10:50 a. m. in room P-38, United States Capitol, Senator Andrew F. Schoepfel, presiding.

Present: Senator Schoepfel.

Senator SCHOEPEL. Let the committee come to order, please. The record will show we are reconvening on this series of hearings this morning.

Let the record also show that the statement of Paul R. Bartlett, California Inland Broadcasting Co. of Fresno, Calif., has been submitted and will become a part of the record.

STATEMENT OF PAUL R. BARTLETT, PRESIDENT, CALIFORNIA INLAND BROADCASTING CO., FRESNO, CALIF.

Mr. BARTLETT. My name is Paul R. Bartlett. I am president of California Inland Broadcasting Co., permittee of channel 12 at Fresno, Calif.

We filed for VHF channel 12 in 1952. As another applicant also applied for channel 12, we had to go through lengthy comparative hearings and it was not until January 11, 1956, that we were finally granted a permit to operate on channel 12. We plan to be on the air within the next 3 or 4 months.

During the 4 years which we were going through a lengthy and expensive comparative hearing for VHF channel 12, three applicants for UHF stations in Fresno received grants without going through a hearing, and as a result have had a 2- to 3-year head start. McClatchy Broadcasting Co. was granted its construction permit on UHF channel 24 on September 17, 1952; O'Neill Broadcasting Co. was granted its construction permit on UHF channel 47 on April 8, 1953; and John Poole Broadcasting Co. was granted its construction permit on UHF channel 53 on August 12, 1953. After a short period of operation on UHF channel 53, the John Poole Broadcasting Co. closed down its operations. Therefore, at the present time there are only two UHF stations and no VHF stations operating in Fresno.

To date, Fresno has been a so-called UHF island. There is no conversion problem there, as all receivers can receive UHF as well as VHF. Advocates of UHF have argued that deintermixture of markets such as Fresno into UHF islands is the cure for UHF's problems. I disagree with these arguments, since I believe that it is clear that

deintermixture will not accomplish the objectives of creating a greater number of stations in communities such as Fresno, nor will deintermixture enhance the prestige of UHF with national advertisers. Indeed, deintermixture in all probability may cause exactly the opposite result.

The situation in Fresno well illustrates the proposition that deintermixture will not increase the amount of service available to the public, but in all probability will permit less service. As already noted, at the present time there are only two UHF stations operating in Fresno, with a third UHF having gone off the air. Our VHF service on channel 12 will bring a new third service to Fresno which was not possible with UHF. Certainly, with all receivers in the area converted to UHF and with a 3-year head start in operations, the 2 existing UHF stations should have little difficulty in competing with our new VHF service, and the public will benefit from a new and additional service, which will be the only VHF service possible in the Fresno area under the allocation plan. However, even if we cannot succeed with our VHF operation in competition with the 2 UHF stations or if 1 of the UHF stations should subsequently fail, Fresno will still have 2 services, which is exactly what it has now. In any event, our new VHF service is the only chance that Fresno has for a third service. Furthermore, our VHF station will make available service to sparsely settled areas in the Fresno area which admittedly are not now covered by the existing UHF stations.

To recapitulate, if Fresno cannot support three television stations, it is not because of any competitive technical advantages or disadvantages between VHF and UHF, since a third UHF station has already failed there without any competition whatsoever from VHF. If Fresno can support only 2 stations, it will make little difference to the public whether they are UHF or VHF or a combination thereof, with the exception that with at least 1 VHF station, some members of the public in the Fresno area will receive television service who would not receive such service if it were limited to all UHF.

In answer to those who have predicted in this hearing that UHF service may fail in Fresno when we start our VHF service in the near future, I would like to state that our VHF service will have very formidable competition from the existing UHF stations. Thus, the McClatchy interests, which own 1 of the operating UHF stations in Fresno, also own and operate 5 radio stations and several newspapers in the central California area in which Fresno is located. The McClatchy group with their powerful backing and dominant position over communications media of all forms in this area can undoubtedly meet any competitor, VHF or UHF, on more than equal terms. The O'Neill Broadcasting Co., the other UHF operator in Fresno, is owned by one of the major industrialists in the central California area, who has numerous other business interests and operates his television station more or less as a sideline.

Mr. O'Neill's manifold business interests in the Fresno area also give him unusual opportunities to obtain the inside on local advertising in Fresno. As compared to our two UHF competitors, who have numerous other business interests in the central California area, our interests are limited to that of running a radio and television station in Fresno.

As numerous UHF witnesses have testified in this proceeding, in communities such as Fresno where only one VHF station is allocated, UHF stations can survive and prosper. I do not believe that anyone can argue with logic or persuasion that our new operation on VHF channel 12 will cause both of the other operating UHF stations to go off the air. Certainly Fresno, with a metropolitan population of approximately 150,000 and a market area population of almost 1 million, which supports 6 radio stations, can support more than 1 television station.

I find it equally difficult to understand testimony in this hearing to the effect that the creation of UHF islands would enhance the prestige of UHF and thus give it a psychological boost with national advertisers. As an illustration, in the State of California, the markets of San Francisco-Oakland, Sacramento, Bakersfield, and Fresno are each allocated UHF and VHF channels on an intermixed basis. With the exception of Fresno, all markets now receive service from both VHF and UHF stations. In Fresno there are now two operating UHF stations, and we have recently received a grant on a VHF channel. In these four markets, there has been a substantial measure of conversion to UHF, ranging from approximately 25 percent in 1 year in San Francisco-Oakland to nearly 100 percent in Fresno and Bakersfield.

Suggestions have been made by UHF proponents that these 4 markets be deintermixed by making Fresno an all-UHF market and the other 3 cities all-VHF markets. Now it is difficult for me to conceive how the prestige of UHF will be in any way enhanced with national advertisers if UHF is deleted from San Francisco-Oakland with 707,358 television households, from Sacramento with 82,773 television households, and from Bakersfield with 10,884 television households, which would leave Fresno as the only UHF island in this California area with 80,380 television households. These figures represent only the metropolitan area, and figures for the total coverage area would be relatively larger. If San Francisco-Oakland, Sacramento, and Bakersfield become deintermixed to all-VHF markets, then the number of television households which would be potential UHF homes in the 4 markets would be reduced from 881,395 to 80,380. Clearly, the elimination of UHF from such important markets as San Francisco-Oakland, Sacramento, and Bakersfield would serve to diminish, rather than enhance, the importance or stability of UHF in the minds of national advertisers. The few UHF islands created by deintermixture would in effect be branded as the leper colonies of television requiring complete isolation.

We must also consider that if the four markets of San Francisco, Sacramento, Bakersfield, and Fresno are deintermixed by making the first three all-VHF and Fresno all-UHF, that Bakersfield and Sacramento for all time in the future would be limited to 2 stations each and San Francisco-Oakland to 5 stations, since this appears to be the maximum possibility of VHF channels for these 3 communities. There does not appear to be any justification for artificially restricting these markets to this limited number of stations. I am also optimistic enough to believe that there are numerous markets in which new UHF stations will come into being within the next few years, despite some of the pessimism which has been expressed here. The networks require additional outlets in many markets, and if UHF is left alone, it will undoubtedly be utilized and receive network affiliations.

Deintermixture and the creation of UHF islands would also reduce the incentive of the manufacturers of receivers to standardize upon one type of all-channel receiver capable of receiving both UHF and VHF. It is readily apparent that the greater the number of markets and buyers that demand UHF the more incentive there will be for manufacturers to meet this demand. However, selective deintermixture would reduce the number of markets for which manufacturers will have to supply all-channel sets and will reduce the overall national demand for such UHF sets. This result can be demonstrated in connection with the previously mentioned markets of San Francisco-Oakland, Sacramento, Bakersfield, and Fresno.

All four of these markets are now intermixed and have, or will have in the near future, both UHF and VHF operating stations. Therefore, under present circumstances, manufacturers have a potential market for all-channel receivers in these 4 markets of \$881,395 households in the metropolitan areas alone. However, if Fresno were made a UHF island and the other 3 markets became all-VHF markets, the potential market for UHF receivers would be reduced by approximately 91 percent from 881,395 to 80,380 television households. Under such circumstances, the only market to which manufacturers would send UHF sets would be Fresno. Aside from this, a substantial number of viewers in San Francisco-Oakland, Sacramento, and Bakersfield who have invested in UHF sets to date will have lost their investment if these three markets are deintermixed. If this should happen, it is clear that the reputation of UHF would be blackened for all time with those persons in these three markets whose UHF sets were made obsolete by deintermixture.

Despite some apparent contradictions in isolated situations, I believe no one can seriously challenge that, if we are to have a television system providing service to all people of the United States which at the same time permits the greatest number of competitive stations to the largest possible number of communities, intermixture of UHF and VHF must continue. In my opinion, the mere fact that a number of UHF stations have failed, or are threatened with failure, does not repudiate this conclusion, for, after all, a substantial number of VHF stations have also failed. Thus, the Commission's most recent financial data shows that 92 VHF stations were in financial distress, as compared to 104 UHF stations suffering such distress. It is apparent, therefore, that, insofar as this hearing is concerned with business failures and financial distress, both UHF and VHF have problems in common.

Economic studies of the industry made by such eminent authorities as Dr. Alexander of CBS indicate that the problem of these business failures would undoubtedly still be with us even though television were all VHF or all UHF. In any event, the problem confronting both UHF and VHF cannot be solved by separating one from the other by deintermixture.

All of us, of course, are interested in new ways to increase and improve the present television service to the public. However, I believe that the testimony in this proceeding to date reveals all too clearly that deintermixture would not serve to improve or increase service but, rather, would tend to destroy the potential which UHF has of ultimately making important contributions to a national competitive television system.

Thank you.

Senator SCHOEPEL. The next witness to be heard is Elmer Engstrom, senior executive vice president, Radio Corporation of America. We will be glad to hear from you, sir.

STATEMENT OF DR. ELMER W. ENGSTROM, SENIOR EXECUTIVE VICE PRESIDENT, RADIO CORPORATION OF AMERICA

Mr. ENGSTROM. My name is Elmer W. Engstrom and I appear on behalf of the Radio Corporation of America. I am senior executive vice president of RCA and my office is at 30 Rockefeller Plaza, New York City. I am appearing at the invitation of this committee to discuss the status of transmitting and receiving equipment for UHF television.

First I want to express to this committee RCA's appreciation for affording us the opportunity to come before you and give testimony. We believe that this hearing can serve a very useful and constructive purpose in developing the facts regarding UHF television, its problems and its possibilities.

It may be helpful to the committee if I first summarize the subjects that I propose to cover in my statement. An understanding of the development of the UHF frequency band is important, it seems to me, in order to appraise in its true perspective the present technical position of UHF television. I propose, therefore, to review briefly some of RCA's work in the UHF.

Conditions of propagation of radio waves at UHF differ from the conditions existing at VHF. Performance of apparatus at UHF differs from performance at VHF. UHF, being more recently developed than VHF, is still to some extent in the pioneering stage.

I shall review the present status of transmitting equipment and receivers for UHF television. Then I shall point out some of the important differences between UHF and VHF for television service. I shall indicate whether or not current apparatus is limiting and what significant improvements may be expected. Finally, I shall propose certain matters for consideration and decision which, in my opinion, might aid UHF television. I shall do this against a background of experience as related to the technical performance of television on the UHF channels.

Mr. Chairman, as I indicated earlier in my statement, I do feel that a recitation of the history of the early work in developing UHF and RCA's part—because we have had an important part in this—is important to the record. But in order to save the committee's time, I should like to have that included in the record, but so far as my oral presentation is concerned, I should like to move to page 7 of my statement because we get more directly into the problem that concerns this committee.

Senator SCHOEPEL. That will be quite all right, and let the record show that the entire statement will be included in the record. I understand you are moving now to page 7?

Mr. ENGSTROM. I am moving to page 7 and I am beginning with the section which is entitled "Television's need for more channels."

Senator SCHOEPEL. Proceed.

RCA'S WORK IN DEVELOPING UHF

Mr. ENGSTROM. RCA has been engaged in development work in the ultra-high frequencies for more than 20 years. We know of no other organization which has devoted as much time and as much engineering effort to the development of the UHF band. This expenditure involved the utilization of more than 2 million engineering man-hours by RCA scientists and engineers.

The UHF television band, as you may know, is only a part of the band of frequencies which is called the UHF. The UHF portion of the spectrum extends from 300 to 3,000 megacycles. The television band in the UHF covers from 470 to 890 megacycles.

Many radio services operate in the UHF. Some of these services, in addition to television, are aeronautical radio navigation; remote pickup for broadcast stations; land transportation, which includes trucking; public safety, which includes such services as police and fire departments; citizens radio; many Government radio services and radio relays such as those for turnpikes and telephone companies. Many of the components used in transmitting and receiving equipment for one UHF service may be the same as or similar to those used in equipment for another UHF service. Thus, RCA's extensive development work in the UHF band has had application to many radio services.

SEARCH FOR SPECTRUM SPACE

The search for space in the radio spectrum to accommodate the constantly increasing number of radio services has been going on since shortly after the invention of the three-element electron tube. Before the appearance of that tube, radio communications were limited mainly to contacts between ship-and-shore stations. The need for more spectrum space for this purpose was not critical and radio traffic congestion, when it did exist, could be blamed more properly on the crude apparatus in use rather than on any real scarcity of available wave lengths. The coming of the versatile electron tube, however, opened up a wide variety of uses for radio signals, many of them far removed from the original marine wireless applications.

Prior to the early 1930's, the UHF spectrum was a no-man's land presenting formidable obstacles to those who attempted to examine and utilize its widespread areas. Actually, however, these obstacles were not unexpected. For many years substantial technical problems had been anticipated whenever the theory of wave propagation at high frequencies was examined by scientists. Because the possibilities of this portion of the radio spectrum were admittedly tremendous, the UHF became a challenge to scientists and engineers despite the magnitude of the problems to be faced.

RCA DEVELOPS FIRST SUCCESSFUL UHF RECEIVING TUBE

Early technical progress was slow. Electrons, which were easily controlled when generated for the lower frequencies, were difficult to regulate at UHF. Tubes that functioned well at lower frequencies were practically useless in the higher frequency parts of the spectrum. Components and circuits, which had been developed for use at frequencies up to 300 megacycles, could not be depended upon to function at higher frequencies.

The first practical receiving type electron tube to operate successfully in the UHF was a unique "acorn" tube developed by RCA engineers in 1933. The production of this tube was an important factor in breaking the logjam which theretofore had held up UHF development.

Also in 1933, RCA engineers working in laboratories at Rocky Point and Riverhead, Long Island, produced 2 UHF transmitters which would operate on 462 megacycles with a power of several watts. After preliminary local tests, communication was established between the 2 towns, a distance of 14 miles. Later, when a 100-watt transmitter was developed, steps were taken to study the effect of greater distances on UHF transmissions, using a frequency of 411 megacycles. A small portable receiver and antenna were devised and mounted in an automobile to permit signal tests at greater distances from Rocky Point.

The experience and data obtained as a result of these early tests, particularly as they related to the sending of signals over the terrain involved and the relation of output power to reliable communications, marked an important step forward.

RCA-NBC OPERATE FIRST UHF RADIO RELAY FOR TELEVISION

RCA and NBC engineers built and operated a radio relay which was used in January 1941 to transmit for the first time a television program picked up at a remote point and relayed by the use of UHF frequencies. An NBC mobile television truck at Camp Upton, Long Island, picked up scenes of Army recruits in training, transmitting the resulting signals over a radio circuit, operating on frequencies near 500 megacycles, to a tower near Hauppauge, Long Island, a jump of 17 miles, thence to a second relay at Bellmore, Long Island, 22 miles distant, and finally direct to New York City, another hop of 28 miles.

In April 1945, an experimental 2-way microwave circuit, using frequencies in the order of 3,300 megacycles, was placed in operation between Philadelphia and New York City. Two relay points for the 84-mile span were selected, one 37½ miles from New York and the other 26½ miles from Philadelphia. Hundred-foot towers were erected at the repeater stations with experimental equipment housed in enclosures on each tower top.

UHF SYSTEMS DESIGNED BY RCA

RCA has designed and manufactured UHF microwave equipment for various turnpikes including the New Jersey Turnpike, the Ohio Turnpike, and the Pennsylvania Turnpike. Utilizing radio channels higher in frequency than the UHF television band, these systems employ a number of UHF relay stations to pass the signals from one end of the highway to the other.

Interconnections between various field headquarters of Allied Air Forces in Central Europe utilize RCA-built UHF equipment.

RCA has also manufactured and sold UHF microwave communications systems for various municipal, State, and other governmental agencies, pipeline companies, electric utilities, and telephone companies.

I have briefly outlined these various diverse facets of work by RCA engineers in the UHF preliminary to discussing our work specifically

directed to television broadcasting in the UHF. I have done this because, in considering and evaluating the present status of UHF television broadcasting, it is important to remember that, only a short time ago, any radio use of the portion of the spectrum above 300 megacycles was not commercially feasible. Only within comparatively recent years has it been possible to utilize the UHF band commercially.

TELEVISION'S NEED FOR MORE CHANNELS

The Federal Communications Commission early realized it would have to find additional space into which television service could expand. Because a television signal takes about 600 times as much space in the frequency spectrum as a standard sound broadcast signal, the promise that television would expand as a postwar service to the public was a major factor in bringing the higher frequencies to the forefront.

In 1945 the Commission tentatively set aside the UHF band from 480 to 290 megacycles for experimental television broadcasting.

As part of its report of May 25, 1945, providing for this allocation, the Commission stated:

The Commission repeats the hope * * * that all persons interested in the future of television will undertake comprehensive and adequate experimentation in the upper portion of the spectrum. The importance of an adequate program of experimentation in this portion of the spectrum cannot be overemphasized, for it is obvious from the allocations which the Commission is making for television below 300 megacycles [VHF] that in the present state of the art the development of the upper portion of the spectrum is necessary for the establishment of a truly nationwide and competitive television system.

PROMPT RESPONSE OF RCA AND NBC

RCA and NBC promptly undertook further tests at these higher frequencies. In 1946 and 1947 there were tests using frequencies of 288, 510, and 910 megacycles.

These tests showed the necessity of increasing the radiated power with any increase in frequency. Accordingly, our engineers designed and installed high-gain unidirectional antennas on the 97th floor of the Empire State Building. In addition, new and improved models of UHF transmitting equipment were designed and installed. Although not of broadcast caliber, these transmitters served to extend the propagation studies through the UHF television range before better transmitters were available.

The tests and surveys also indicated that more power would be necessary for a UHF station to serve the same relative area as a VHF station. Nevertheless, it was also apparent that UHF could be developed so that, under proper conditions, it could render service to the public as a broadcasting medium.

UHF TELEVISION SYSTEM INSTALLED IN WASHINGTON

After the May 1948 announcement of the Commission that hearings would be held to obtain information on possible utilization of 475 to 890 megacycles in the UHF band for television broadcasting, RCA and NBC decided to continue the tests in Washington rather than in New York so that the experience would be directly available to those participating in the hearings. A complete television system operating

in a 504 to 510 megacycle channel was installed at what is now the Sheraton-Park Hotel. Fifty home receiver installations were made throughout the Washington area to check the results of these transmissions. With antennas on the WNBW (WRC-TV) tower radiating the same program at both the UHF and the VHF, it was possible for us for the first time to compare directly results at the UHF and at the VHF under similar conditions.

Analysis of the data corroborated the conclusions reached as a result of previous tests that significantly higher radiated power would be required for television at the UHF than at the VHF. In addition, it was evident that shadow effects, because of buildings and rugged terrain, were more pronounced in the UHF than in the VHF frequency band.

RCA BUILDS FIRST COMMERCIAL-TYPE UHF STATION

In 1949 RCA and NBC established near Bridgeport, Conn., the first commercial-type UHF television broadcasting station. The station went on the air December 29, 1949, using the band of ultrahigh frequencies between 529 and 535 megacycles. Later a second transmitter, operating on 850 megacycles, was also installed by us at Bridgeport to permit a study of transmission and antenna techniques at the upper end of the UHF television band.

For more than 2 years this experimental station rebroadcast on a regular basis programs picked up from WNBTV (WRCA-TV) in New York by means of a 2,000 megacycle microwave relay direct from the Empire State Building. UHF television receivers were built and placed in homes in and around Bridgeport. To supplement the data derived from reports of home viewers, we also equipped a mobile receiving unit to make additional tests.

The data obtained were analyzed and prepared as a full report, copies of which were filed with the Federal Communications Commission. In addition, RCA and NBC engineers published the data in technical papers so that all segments of the television industry would have access to the information.

Representatives of the FCC, of virtually every electronics manufacturer, and many broadcasters came to Bridgeport to visit this experimental station and to observe for themselves what it could do. Many manufacturers utilized the Bridgeport UHF signals as an aid in their development of UHF receivers and antennas.

On April 14, 1952, the FCC issued its new allocation plan, effective July 1, 1952, setting aside 70 UHF channels for television.

The first commercial UHF station to go on the air following this action of the Commission was Station KPTV in Portland, Oreg., equipped by RCA. The equipment was that which had been used by the Bridgeport experimental UHF television broadcasting station, and the station commenced operation in September 1952.

UHF TRANSMITTING EQUIPMENT

RCA work in developing improved UHF transmitters was well underway at the time the Commission in 1952 authorized UHF broadcasting on a commercial basis. The first UHF transmitters sold by RCA for commercial television had a power of 1 kilowatt. The effective radiated power provided by this transmitter was greater

than 1 kilowatt, however, because of the gain provided by the transmitting antenna.

Transmitting antennas may be built so that the signal transmitted is concentrated in the region just above the surface of the earth. Thus, signal energy is not wasted by useless transmission upward. This effectively provides a signal which is stronger than would be the case with a simple antenna. Such antennas are rated in terms of a gain factor which expresses the signal transmitted as though it came from a transmitter of a power greater by this gain factor. For the period I am now discussing, RCA transmitting antennas for the UHF were available with a power gain of 20 or more. Thus, with the 1-kilowatt UHF transmitter, an effective radiated power of more than 20 kilowatts could be provided.

Meantime, development work was in progress at RCA with respect to higher power transmitter tubes together with the unique circuitry required for each, looking toward higher transmitter power. As a result of intensive development work, an appropriate power tube and a 12-kilowatt UHF transmitter were produced by RCA. A number of these UHF transmitters have been sold by RCA and are operating with effective radiated powers in the order of 250 kilowatts.

HIGH-GAIN UHF TRANSMITTING ANTENNAS

At the same time, development work on UHF transmitting antennas was in progress. Efforts were first directed toward contouring the pattern of the antenna which was used with the 1-kilowatt and 12-kilowatt UHF transmitters. Knowledge gained in this work led to the possibility that omnidirectional antennas with gains in the order of 50 could be built. Utilizing such an antenna and 2 RCA 12-kilowatt amplifiers operating in parallel, the first equipment of 1,000 kilowatt effective radiated power went on the air in December 1954, at Station WBRE-TV, Wilkes-Barre, Pa.

There have been new developments in addition to the high-gain UHF transmitting antenna. For example, early last year RCA announced a UHF 25-kilowatt transmitter utilizing a 25-kilowatt tube. This transmitter, when used with the high-gain antenna to which I have just referred, provides an effective radiated power of 1,000 kilowatts. The new transmitter also provides improved operating efficiency and a lower initial capital investment per kilowatt of output power as contrasted with our earlier transmitters.

At the present time, the maximum effective radiated power permitted by the rules of the Federal Communications Commission is 316 kilowatts for high band VHF stations and 1,000 kilowatts for UHF stations. Equipment costs for such a maximum power VHF station and such a maximum power UHF station are approximately the same and operating costs for power and tubes are likewise of the same order.

HIGHER POWER PROPOSED FOR UHF TELEVISION

In a notice released June 24, 1955, the Commission proposed to amend its rules to increase the maximum permissible effective radiated power for UHF stations from 1,000 kilowatts to 5,000 kilowatts.¹ RCA supported the proposal of the Commission and stated

¹FCC Docket No. 11433. By Commission order released December 15, 1955, Docket No. 11433 was terminated and the record made a part of Docket No. 11532.

in its comments of August 31, 1955, that in its opinion the higher power proposed by the Commission for UHF would result in improving coverage and service provided by UHF television stations. RCA advised the Commission it was continuing its development work on higher power UHF tubes, circuits, filterplexers and antennas. This was with the objective of providing equipment necessary for UHF television stations to operate at higher effective radiated power levels, such as 5,000 kilowatts, if such power levels were authorized by the Commission. It was further stated by RCA that early approval of higher power by the Commission and customer demand would, of course, accelerate the time when commercial models of such equipment would be available. The Commission still has this matter under consideration.

HIGHEST POWER ACHIEVED FOR UHF TELEVISION

In recent months RCA's development work on higher power has resulted in achieving, to the best of our knowledge, the highest power ever developed for UHF television. On January 13 this year, a test was conducted at the RCA tube plant at Lancaster, Pa., coupling an RCA high-gain UHF antenna to an experimental transmitter using a developmental superpower tube to produce 4,500 kilowatts of UHF television effective radiated power at a frequency of 527 megacycles. This power was obtained by feeding approximately 100 kilowatts, generated by this new tube, into the antenna which had a gain of about 46.

Several weeks later further tests were made operating the transmitter at an average power of 100 kilowatts and intermittently pulsing it up to a level of 175 kilowatts. This is an approximation of operating conditions using a television signal. With an antenna gain of 46, this gave a peak effective radiated power of approximately 8,000 kilowatts.

UHF BOOSTER STATIONS

In 1954, RCA made plans to conduct tests to determine the extent to which booster operation could aid in the coverage of UHF television stations.

After a lengthy study of a number of areas in order to find a site for carrying out a full scale booster operation, RCA selected station WJTV, channel 25, in Jackson, Miss., as appropriate for these tests. This station, with an effective radiated power at that time of 17.7 kilowatts, was reported to be having trouble in covering Vicksburg, Miss., located about 35 miles west of the station. A substantial portion of Vicksburg was shielded from the station by a ridge of hills.

A survey was made in the neighborhood of Vicksburg to determine whether there were any receiving sites where a reasonably noise-free picture could be obtained to feed the booster station. Several such locations were found and one of these was chosen as the site for the booster. Equipment we had developed was installed at this site in cooperation with station WJTV.

A detailed report concerning the Vicksburg tests entitled "An Experimental Investigation of the Engineering Aspects of a UHF Booster Installation," was sent by us to the Federal Communications Commission on August 4, 1954.

These tests were referred to in RCA's comments of July 20, 1955, filed in a rulemaking proceeding which was instituted by the Federal Communications Commission by notice released March 31, 1955 (FCC Docket No. 11331). The purpose of the proceeding, the Commission stated, was to determine whether booster stations would constitute a feasible means for increasing the effective coverage of UHF television stations by filling in shadow areas within the nominal service areas of such stations. We stated our conclusion to be that, although conditions in the particular area and other technical means of providing satisfactory coverage must be carefully considered, in certain locations booster operation can aid in increasing the effective coverage of UHF television stations in their service areas. The Commission still has this matter under consideration.

UHF RECEIVING EQUIPMENT

While RCA was engaged in development work on UHF transmitting equipment, work was also in progress at RCA on the further development of UHF television receivers and receiving antennas.

When the first commercial UHF television station began operation in Portland, Oreg., in September 1952, we manufactured and sold three types of converters for existing VHF receivers. These were a continuous all-channel converter, a two-channel converter and a single-channel converter. In addition, we manufactured a VHF-UHF receiver which employed a 16 channel step-type tuner with separate circuit elements for each channel, any number of which might be provided with UHF tuning elements. In June 1953, we introduced a continuous all-channel UHF tuner which, in conjunction with the step-type VHF tuner, provided complete coverage of all television channels. We introduced a new and improved UHF tuner in June 1954, which also provided for continuous coverage of all UHF channels. The RCA line of receivers introduced in mid-1944 included receivers having all-wave tuners which incorporated further improvements.

Senator SCHOEPEL. Might I interrupt there, sir. What was the differential in costs on those?

Mr. ENGSTROM. I am going to come to that, at least so far as the present situation is concerned.

Senator SCHOEPEL. Thank you.

IMPROVEMENTS IN UHF RECEIVER PERFORMANCE

Mr. ENGSTROM. Substantial improvements in UHF receiver performance have been made during the past few years.

One measure of this improved performance relates to the strength of signal required to produce a noise-free picture, that is, a picture free of a noise effect which has the appearance of snow. This in technical terms is referred to as noise factor and is defined in terms of decibels of noise above an arbitrary level. On this scale, the lower the numerical figure in decibels the better the performance of the receiver in this regard.

Noise factors on production units, which ran as high as 18 to 25 decibels in some early receiver designs, now average from 11 to 14 decibels in such units. This means that UHF receivers we build today will give a satisfactory picture on a weaker signal than would earlier models. However, noise factors of UHF receivers, even though

they have improved, are still not comparable to those of VHF receivers. In VHF receivers we manufacture at the present time noise factors average between 4 and 7 decibels.

Another improvement in performance relates to the spurious radiation from the receiver itself. Such spurious radiation affects other television receivers in the immediate neighborhood. The Commission has specified levels for this spurious radiation, which are 500 microvolts per meter at 100 feet for the UHF band, to be effective at a future date.

In RCA receivers, spurious radiation has been reduced from about 3,000 microvolts per meter at 100 feet 3 years ago to a level of about 500 microvolts per meter at 100 feet in UHF television receivers presently being manufactured.

Through experience gained from customer use of UHF receivers, design changes have brought about improvements. For example, we feel that the ease of tuning a UHF receiver has been improved.

Development work has proceeded on special types of receiving antennas for UHF and on improving the performance of transmission lines between a UHF antenna and the receiver. This improved equipment is now in customer use.

RCA is continuing its development work with regard to circuits, tuner design for VHF and UHF channels, receiving tubes and antennas, with a view to bringing about further improvement in the performance of UHF television receivers.

RCA PROMOTES SALE OF UHF RECEIVERS

It has been the policy of RCA to promote the sale of all-channel VHF-UHF television receivers. All color television sets we have manufactured up to the present time can receive all VHF and UHF television channels. Our black-and-white television receivers can be purchased by customers, if they desire to do so, as all-channel VHF-UHF receivers.

When we introduced our line of black-and-white television receivers during mid-1955, we reduced the nationally advertised retail-price differential between our all-channel set and a VHF only set to \$25. This compared with the \$50 to \$60 differential which existed when we first introduced UHF tuners in our sets, and represented a reduction of more than 50 percent. The price differential which will apply to the new line of black-and-white television sets which we will introduce during mid-1956 has not as yet been determined.

The percentage of RCA's total production of black-and-white television receivers which is all-channel VHF-UHF is well above the average of the balance of the industry, in fact, approximately 40 percent above for the year 1955. However, the year-by-year industry trend with respect to the percentage of production of all-channel receivers is not encouraging. For the total yearly industry production of black-and-white receivers, the percentage of all-channel sets was 19.6 percent in 1953, 19.9 percent in 1954, and 15.2 percent in 1955.

NECESSARY TO UNDERSTAND TELEVISION PERFORMANCE AT UHF

It is necessary to understand how television performs at UHF in order to be certain, or at least confident, of practical success in tackling UHF problems. In general it is not proper to assume performance

equal to VHF for reasons I have already outlined. This is not a new concept; it is one which became clear during the pioneering test period of television at UHF.

As I have already indicated in my statement, the Federal Communications Commission, at an early date, encouraged development work above 300 megacycles. This region was at one time thought to be the part of the frequency spectrum where color might have its beginning. Our experience during the late 1940's indicated, however, that color should have its start in VHF and expand to UHF.

In this connection on September 29, 1949, I testified before the Federal Communications Commission as follows:²

During the period of our UHF propagation tests and surveys, I held frequent discussions with two of my associates, Dr. Brown and Mr. Kell, because we became increasingly cognizant of the magnitude of the problem of broadcasting color television at UHF. This problem we saw was one for which the solution would surely come but would be slow in coming. We also saw that it would be necessary to make appropriate changes in the concepts of what UHF would do and that direct comparison to or equivalence with the low VHF channels was not appropriate. In presenting our data on the UHF tests we were careful to be realistic but at the same time avoid any overemphasis of the difficulties. Even so, we knew that others considered and said that we were too pessimistic in our statements. On this point, however, the passage of time is making clear what the real situation is.

There are differences between the propagation characteristics of the lower group of VHF channels as compared to the higher group of VHF channels. There are likewise differences between the VHF channels and the UHF channels and, again, between the UHF channels at the lower end of the band as compared to those of the upper end of the band. These differences are such that it is progressively more difficult, as the channel number or frequency becomes higher, to provide a usable signal in areas of tall buildings, rugged terrain and hills and valleys. It is more difficult for the higher frequency signals to penetrate, and there is less tendency for the signal to fill in or heal on the other side of an obstruction. These are conditions of nature. Increases in transmitter power are in the right direction to help, but cannot completely compensate for the very difficult situations.

A practical UHF receiving antenna is smaller in size than a VHF receiving antenna. A UHF antenna, therefore, intercepts less signal than a VHF receiving antenna. As I have already explained, UHF receivers require a stronger signal, particularly in any fringe or low signal area, than do VHF receivers if the picture is to be free of noise interference. Here again increases in transmitter power move in the right direction to aid in UHF.

In discussing the status of UHF television transmitters, I indicated that transmitters and antennas are available today which go to the top limit permitted under the existing FCC rules. I also indicated that RCA has developed new UHF tubes which may be used in transmitters and which may have effective radiated powers of the higher levels contemplated by an FCC proposal on which final action has not yet been taken.

Tubes and circuits for UHF television receivers will continue to be improved. Here it is my opinion that progress will be gradual and slow. There are modest improvements in sight, but there is no sig-

² FCC Docket Nos. 8736 et al., transcript of hearings, p. 2657.

nificantly large improvement on the immediate horizon. This is a research and development area which has received much attention during the past 10 or more years. It is from this experience that the above statements are made. One must, therefore, proceed to use performance characteristics of the general order of today's receivers, keeping in mind gradual improvements, in defining UHF service areas.

When VHF and UHF television stations serve in the same area the differences I have just been discussing are highlighted. The commercial and competitive aspects come into play, including the difference in cost between a VHF-only and an all-channel receiver. During the formative days of the television allocation plan, parties in industry cautioned against the mixing of UHF and VHF channels in the same service area wherever this could be avoided. There are practical limits to what can be done today because of the freezing effect of an allocation plan which has been in operation for several years; yet it is not too late to provide some remedy.

Subsidiary transmitters such as boosters and translators fed from the prime transmitter are helpful in filling the signal void behind a hill or obstruction and in supplying an area for any reason not penetrated by the prime signal. Here the particular broadcasting area and terrain situation must be carefully considered and each situation must be decided upon merit.

Freedom to use a directional antenna at the transmitter might in some cases be an effective aid. It is not always possible for UHF stations to utilize the best transmitter sites with an omnidirectional antenna and provide the best possible service at the least cost. The technical problems associated with the use of a high-gain UHF directional antenna are, in some instances, simpler than for an omnidirectional antenna.

The last matter on my list in this area is receiver cost. An all-channel television receiver capable of receiving UHF stations costs more than a receiver designed to receive VHF stations only. A customer naturally will not buy the more expensive all-channel receiver unless he knows from experience that the all-channel receiver will give him an enlarged service and one which appeals to him as having value. This is a handicap for UHF that goes to the grassroots level.

WHAT CAN BE DONE TO AID UHF TELEVISION ?

In my testimony up to this point I have been laying the groundwork for certain suggestions which I shall now make to this committee. In making these suggestions, I do so in the belief that I do not have, nor do I believe that anyone has, a complete answer to all of the questions which have been raised during the start-up period of UHF. It seems clear that there is no single plan or solution which will be fully effective. Rather, one must consider and act upon all of the valid proposals.

When one takes into account the differences and limitations which I have outlined and uses good engineering judgment as to environmental conditions, UHF stations can provide an adequate and satisfactory signal service. As I have already stated, it is necessary to understand television performance at UHF. It is necessary to make a correct application for each situation. There is no known alternative, for we need the UHF channels in addition to the VHF channels

for our still growing black-and-white television service and for the color service which is the newest of the mass communications mediums.

I therefore include in my list of suggestions several areas in which action might be taken to aid UHF television. My suggestions are:

Authorization by the FCC of higher power for UHF stations.

Senator SCHOEPEL. Would you care to indicate—and you may not be able to—how much higher power?

Mr. ENGSTROM. I think, sir, that one has to move between what one might like to have and what it is practical to have, both from the point of view of the apparatus itself and the use of that apparatus by a broadcaster. The Commission has proposed for consideration an increase in power from 1,000 kilowatts to 5,000 kilowatts of effective radiated power. I concur in that proposal.

I think at a later time, when economic factors are better known, the Commission might again be well advised to consider an increase even in that power to something of the order of 10,000 kilowatts or more. But I think the first step is clear, that it should go from 1,000 to 5,000 kilowatts of effective radiated power. My further suggestions are:

Authorization by the FCC of the use of directional antennas by UHF stations.

Authorization by the FCC of the use of booster and translator type stations.

Action by the FCC to deintermix on a sufficiently broad basis to create a nucleus of predominantly UHF service areas from which UHF may grow and expand.

Encourage multiple owners and others with resources and know-how to undertake the operation of UHF stations.

Repeal by Congress of the excise tax on all-channel color television receivers.

I will discuss further some of these suggestions which I have not already dealt with in my testimony.

DEINTERMIXTURE

We believe that one of the contributions which the FCC can make to UHF television is to deintermix on a sufficiently broad basis to create a number of predominantly UHF markets. Without this, the public may not purchase all-channel receivers in sufficient number to justify the continuance of their manufacture. With deintermixture on such a basis, however, UHF is provided a nucleus of areas from which it can spread to others.

Prior to the adoption by the FCC in April 1952, of its present television allocation plan, RCA recommended that the Commission—

* * * avoid, insofar as practical, the mixing of VHF and UHF channels in the same service area. (RCA letter of March 23, 1950, to the Commission in Docket Nos. S736 et al.)

The Commission, in dealing with proposals for mixture or nonmixture of UHF and VHF channel assignments, in its report of April 14, 1952, stated that—

* * * UHF is not faced, as was FM, with a fully matured competing service. In many cases UHF will carry the complete burden of providing television service, while in other areas it will be essential for providing competitive service. In view of these circumstances, we are convinced that stations in the UHF band will constitute an integral part of a single, nationwide television service. (Sixth

Report on Television Allocations, 1 Pike and Fischer Radio Regulation 91:601, at 91:664.)

However, by the time the television freeze was lifted and UHF stations actually began to come on the air, VHF had a circulation lead over UHF of 21 million sets.

It is these facts which raise grave doubts as to the wisdom of intermixture, as provided in the sixth report. The Chairman of the FCC put it this way in an address on December 6, 1955:

* * * It was assumed that the initial technical and economic handicaps of UHF would be overcome eventually, and, therefore, the Commission intermixed VHF and UHF assignments in various cities and areas.

Up to the present, this basic assumption has not proved out * * *.

Some criteria, which it was suggested the Commission might want to apply with respect to deintermixture, were set forth in comments which RCA and NBC filed with the Commission on December 15, 1955. (FCC Docket No. 11532.)

MULTIPLE OWNERS SHOULD BE ENCOURAGED TO ACQUIRE UHF STATIONS

In January 1952, even before UHF channels were made available for commercial use, the National Broadcasting Co. asked the FCC to amend its rules to permit NBC and other multiple owners of television stations having the knowhow, experience, and resources to undertake part of the task of furthering the commercial development of UHF. More than a year ago the Commission so amended its rules.

Owners with experience in research, engineering, manufacturing, or broadcasting could show the way in establishing a UHF television service either in an intermixed or nonintermixed market. Persons who have a substantial stake in television and electronics should be encouraged to enter the UHF field.

REPEAL OF EXCISE TAX ON ALL-CHANNEL COLOR TELEVISION RECEIVERS

If UHF television is to succeed, it is essential that the public have greater numbers of UHF receivers. This is necessary entirely apart from anything else that is done to aid UHF.

Proposals have been made in the past that the excise tax be removed on all-channel black-and-white television receivers. This proposal was made in the interest of increasing the number of receivers capable of being tuned to the UHF channels. For example, had the excise tax been removed a year ago, there would today be a substantially larger number of receivers in use with all-channel tuners. I understand this proposal did not meet with favor because of the loss of tax revenue.

Now we are on the threshold of a new television service, television in color. We therefore have the opportunity to assure the growth of receivers with all-channel tuners as a part of this new service. The development of color television as a national service in the interest of the public and the Nation's economy requires the production of color receivers which can be priced to the consumer at the lowest possible level. This, together with considerations of price competition, make it necessary to do everything possible to bring receiver prices down.

Up to the present time, RCA color receivers have included all-channel tuners. Thus, every RCA color receiver made to date can be

used for any of the UHF channels as well as the VHF channels. However, recognizing the realities of the situation and the competitive picture, as we move into higher rates of production we must plan to make VHF-only color receivers as well as all-channel color receivers. This is our current plan for the new line of color receivers which we will announce within a few months.

If the buying habits of the public for color television receivers prove to be the same as for black and white, we would then expect that something of the order of four-fifths of our production would be VHF only and the remainder would be receivers with all-channel tuners.

Congress now has the opportunity to aid in getting color television off the ground and at the same time assure an increased audience for UHF.

If the Congress exempts all-channel color sets from excise tax, we would then take appropriate steps to provide for the production of only all-channel color receivers as soon as practicable thereafter.

For us time is of the essence, because, as I have just stated, we are preparing soon to announce a new line of color receivers. These new color receivers will be moving through our factory within a month.

We believe that removal of the excise tax would be sufficient reason for all manufacturers to make all-color receivers tunable to both VHF and UHF; in other words, all-channel receivers. As color receivers replace black-and-white receivers, which they are bound to do, the UHF audience for both black-and-white and color transmissions would grow. That the UHF audience grow is basic to the success of UHF.

THE NEED FOR UHF TELEVISION CHANNELS

In conclusion, it is my opinion that the battle for UHF television is well worth fighting in the public interest. The stature of television today has been built upon the 12 VHF channels and only a partial use of the 70 UHF channels. Television needs more than 12 VHF channels in order to fulfill its promise. The UHF channels were provided to meet this need. We must work, therefore, toward solutions of the UHF growth problems which have appeared in order that television may come to fulfillment.

Mr. Chairman, that completes my statement.

Senator SCHOEPEL. Thank you very much, Mr. Engstrom, for a most enlightening statement. I think our counsel has a series of questions that he desires to ask you.

Mr. Cox. Thank you, Senator. Dr. Engstrom, I gather in 1952 when UHF stations first went on the air, it was quite clear at that time that the transmitting equipment available for them was not fully competitive with the V stations then on the air at their maximum authorized powers. Is that correct?

Mr. ENGSTROM. My answer is that it was clear to all of us who had experience. I do not remember exactly how you phrased the question. You used the word "them." In the Commission's records, in all the technical literature, it was adequately clear that more power than 1 kilowatt would be needed in order for UHF to operate on any kind of a competitive basis with VHF; yes, sir.

Mr. Cox. We have been given to understand that the early U-operators believed from the position taken by the Commission—and,

I gather, from certain statements of manufacturers—that that condition would be rather rapidly improved. Was there basis in the proceedings leading up to the sixth report for such a feeling of confidence on their part, in your opinion?

Mr. ENGSTROM. When you say that the situation would be rapidly improved, you mean by the construction of higher power transmitters?

Mr. Cox. Yes.

Mr. ENGSTROM. I think everyone did have the concept that that would happen, and that is what has happened. But it is also clear that higher power transmitters are not available in the first instance. They have come along since that time.

Mr. Cox. As I gather it, though, actually even a transmitter with an effective radiated power of 1,000 kilowatts has been available only for about a year and 4 or 5 months.

Mr. ENGSTROM. Yes; I believe that is correct.

Mr. Cox. I also gather that a good many UHF operators—in fact, a great majority of them—have not taken advantage of this higher power for economic or other reasons. If they were to increase from an effective radiated power of 250 kilowatts to 1,000 kilowatts, would they achieve a substantial increase in their service area coverage, or simply an improvement of the picture within their present area?

Mr. ENGSTROM. They would do both, of course. An increase in transmitter power to the maximum permitted would, within the basic service area of the station, fill in some of these low-signal areas which might be caused by hills or by buildings or by obstructions of one form or another. It would increase the distance that the signal would travel and therefore would, by the same token, increase the total service area of the station.

I think, however, one has to be careful that if in a particular environment one has a low channel VHF station in direct competition, one cannot say that they would be equivalent. The low-channel VHF station operating at maximum power of 100 kilowatts would have a larger service area and would be freer from whatever dead spots remain.

Mr. Cox. Assume that the U-station is operating at 250 kilowatts and it is considering going to 1,000 kilowatts. As it increases its service area, it again encounters a conversion problem which it may have solved in its present service area, does it not, as it now reaches out to people who have been getting television service but who have gotten it only from V stations?

Mr. ENGSTROM. I am sure you are correct, but I would assume also, in addition, that in an environment which had both VHF and UHF, even though the UHF station did not reach far enough to interest people on what might be the fringe area of the VHF station, they would have had some incentive to have purchased a receiver that would tune to all channels in anticipation of what might happen, you see, later. So except for that, I am in agreement.

Mr. Cox. Then do you not have the problem that, as the coverage is broadened, he then is getting into areas of sparse population, and there arises a very serious question as to whether the potential increase in the receivers that he can reach is going to make worth while the initial capital outlay that will be necessary to make the increase in power?

Mr. ENGSTROM. Surely. But I think that we may be going along diverging paths, you see, because I personally would not apply a UHF channel in an area which was difficult to serve because of terrain or because one wanted to get the extreme of distance. That is the job to be done by a VHF station.

Mr. Cox. That was one of the points I wanted to bring up. That is, in your opinion there are now, based on experience today, certain areas in which very clearly it is almost useless to allocate UHF channels?

Mr. ENGSTROM. I can think of one—New York City.

Mr. Cox. Yes; because of the problems of high buildings. And in certain other areas of rugged terrain, would you feel that it would be better, if a thoroughgoing reallocation were undertaken, to try to concentrate enough V's there to give the kind of competitive services required and to leave U's in areas of better terrain for that kind of service?

Mr. ENGSTROM. Yes, sir; I would do that. And I would try to make the U-locations, insofar as is possible or practicable, to be all U-locations. I know that one cannot do that in all cases.

Mr. Cox. Could you give us, just roughly, an idea of what it would cost a U-operator to go from 250 to 1,000 kilowatts of effective radiated power?

Mr. ENGSTROM. I have some indications as to the cost of the basic equipment, but I do not have the incremental costs. I can provide this information for the committee.

Mr. Cox. Would you do that?

Mr. ENGSTROM. I shall do that.

(This information was furnished by letter dated April 2, 1956, and was made a part of the record on April 23, 1956. The letter reads as follows:)

RADIO CORPORATION OF AMERICA.
New York, N. Y., April 2, 1956.

HON. WARREN G. MAGNUSON,

*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

DEAR SENATOR MAGNUSON: During my testimony on March 15 before the Senate Interstate and Foreign Commerce Committee, I was asked to provide for the committee an estimate of how much it would cost a UHF television station operator to increase the effective radiated power of his station from 250 kilowatts to 1,000 kilowatts.

Such a conversion would involve the transmitter, the antenna, and, in some cases, the tower and transmission line. The total cost of the conversion could vary considerably depending upon the equipment the station now has.

I will assume in my answer that the equipment to be used to attain 1,000 kilowatts effective radiated power will be a 25-kilowatt transmitter and an antenna with a power gain in the order of 50. In addition, I will assume that the station is now equipped with an RCA TTU-12A (12-kilowatt) transmitter. Equipment to convert this transmitter to an RCA TTU-25B (25-kilowatt) transmitter would cost approximately \$75,000. The present cost of a new RCA TFU-46AL high-gain UHF antenna would be \$49,500. Additional transmitter and antenna cost, therefore, would be in the order of \$124,500.

Transmitter and antenna cost for initial installation of UHF stations would be approximately \$137,500 for a station with an effective radiated power of 250 kilowatts and \$235,500 for a station with an effective radiated power of 1,000 kilowatts, or a difference of \$98,000. This figure of \$98,000 compares with the figure of \$124,500, above, when a changeover to increased power is made following the initial installation.

In some cases the station might need a new tower to support the high-gain antenna and a new transmission line. The cost of a 500-foot tower, for example, would be in the order of \$30,500 and new transmission line from the antenna to the transmitter, if required, would cost about \$15,500.

The above figures of course do not include transportation and installation costs which vary with the particular circumstances.

Very truly yours,

E. W. ENGSTROM.

Mr. ENGSTROM. The figures which I have before me indicate that so far as the transmitter apparatus is concerned and the antenna—I am talking about apparatus cost now—it is \$235,500 for a UHF transmitter having 1,000 kilowatts of effective radiated power. In comparison, a VHF high-band transmitter—this is in the upper group of VHF channels—where the Commission permits a maximum power of 316 kilowatts of effective radiated power, the cost of that equipment is \$250,500.

The reason for the cost differential is basically this, that at the VHF channels it is more difficult for practical reasons to build a transmitting antenna that has high gain; whereas as one gets to the UHF channels, where the wavelength is shorter physically in inches, one may more readily build a high-gain transmitting antenna. Therefore, in order to obtain, at least by our design concepts today, 316 kilowatts at the high-band VHF, we use a transmitter, proper, which produces 50 kilowatts of power; whereas in order to obtain the 1,000 kilowatts of effective radiated power at the UHF, we use a 25-kilowatt transmitter.

Mr. Cox. You indicated that the equipment costs and the operating costs for this high-band VHF station and for a UHF station are about the same?

Mr. ENGSTROM. Yes, sir.

Mr. Cox. I take it that that is speaking as of today?

Mr. ENGSTROM. Yes.

Mr. Cox. When most of the U-stations were built in 1952, 1953 and early 1954, were the costs, then, of constructing a UHF station more in comparison with a V-station than is true today, because you have been able to bring the costs down?

Mr. ENGSTROM. May I refer to one of my associates?

Mr. Cox. Yes.

Mr. ENGSTROM. Mr. Hopkins has said that in the beginning a 1-kilowatt UHF transmitter cost approximately \$25,000 more than a 1-kilowatt VHF transmitter.

Mr. Cox. Were 1-kilowatt VHF transmitters being used in substantial quantities? That is, with high-gain antenna? Were they being used, so this actually would be a fair competitive comparison?

Mr. ENGSTROM. No, I do not believe it is a fair competitive comparison, because there was a rather rapid drive for the operators of VHF stations to go on increasing their power.

Mr. Cox. That is, most successful VHF stations are now operating at their maximum permitted power, whereas only 3 or 4 UHF operators are using 1,000 kilowatts?

Mr. ENGSTROM. It is certainly a very much larger percentage, yes, sir.

Mr. Cox. We have heard figures—I do not believe any of them are on the record—that indicate that, to build a UHF station—this may include the studios as well—it costs \$500,000 to \$600,000, and that this represented, in the days when those stations were going on the air, a substantially higher cost than was required for a VHF station that could actually outcompete them as to coverage. Do you think that was likely to have been true in those earlier days?

Mr. ENGSTROM. I am not sure I can answer the question, as I understand it, because in the beginning all that was available to the UHF station operator was a 1-kilowatt transmitter. Therefore, he was not in a position to start out competing signal area for signal area with a VHF station.

The total cost of a broadcasting station varies widely for different operators because of the amount of studio equipment or program generating facilities which he has. If one gets down to the basic cost of the transmitter itself, then the differences are certainly very much less; and as I have indicated today, for the two powers that I have outlined, the cost is essentially the same.

It would cost a UHF operator less, in the beginning, to set up a 1-kilowatt station certainly than it would cost a VHF operator to set up a station of higher power.

Mr. Cox. Do you know whether the UHF stations now operating at 1,000 kilowatts are able to achieve, if not as wide coverage as a V competitor in that area, at least nearly enough so as to make them competitive, if their rates are right?

Mr. ENGSTROM. I do not believe that I am really in a position to answer that question because that is the kind of information which really should come from a broadcaster who has the experience. But in terms of the technical information which I have outlined, I think that it is a little dangerous to talk about direct competition unless one knows exactly the environment in which the stations are located.

Mr. Cox. You mentioned the development of this experimental 4,500-kilowatt transmitter at Wilkes-Barre, I believe it was. I assume these are not yet in commercial production in any sense?

Mr. ENGSTROM. No, sir, they are not in commercial production because it is common that, while basic development work is done in advance of permission to use such apparatus, practical apparatus designs are not finished, nor is apparatus made, until the exact requirements are known.

Mr. Cox. Do you know whether UHF operators have in general supported this proposal to increase their maximum power?

Mr. ENGSTROM. I personally do not know that. I understand that Mr. DeWitt, who appeared yesterday, supported the move to higher power.

Mr. Cox. Could you, looking to the future, give us any idea of what might be the cost of such a transmitter, assuming favorable action by the FCC? I am trying to get at the point whether the moving on to higher power for a UHF operator is ever going to be economically feasible in the face, at least, of their present economic situation.

Mr. ENGSTROM. I can give you a very crude guess—

Mr. Cox. That will be all right.

Mr. ENGSTROM. Since we haven't designed the apparatus and do not know its manufacturing cost. It would cost something in the order of \$550,000 for that type of transmitter.

Mr. Cox. Would the cost of operation, because of the power tubes, be substantially greater for that than for a 1,000-kilowatt transmitter?

Mr. ENGSTROM. It would be just a little over two times the cost of operating a 1,000-kilowatt UHF transmitter.

Mr. Cox. Do you think that a UHF station operating at 4,500 kilowatts—assuming ideal conditions with no high buildings, at least not a great concentration of high buildings, and not too rough terrain—could achieve substantial competitive equality with a VHF station operating at its present authorized maximum?

Mr. ENGSTROM. I believe, sir, we are getting back into the area where I have difficulty. You see, when you start talking about competitive—and may I tell you why. We have these factors of propagation where there are differences, and where the difference becomes more pronounced the higher one goes in the UHF band—that is, the higher channel numbers. We have the differences with respect to a practical receiving antenna to collect as much signal. We have today's situation—and one which I indicated will improve, but only slowly—of the difference in performance on a UHF receiver as compared to a VHF receiver. All of these find a solution, at least a partial solution, which goes in the direction of increasing the amount of power.

Now, by engineering terms one can—and we have, and this information is in the technical record and in the Commission's record—put together all of these differences and add them up, and one gets a ratio of power required to be competitive, for example. But in 70 or 80 percent of all cases in all service areas that becomes fantastically high. It is in the order of thousands.

Now, let me however go back and be practical and give you a rule of thumb ratio which I think would work out if, as you say, you select an area which is reasonably favorable for UHF. If one makes a 10 times gain in the power of a UHF transmitter, one makes a noticeable improvement. If one makes a hundred times gain in transmitter power in UHF—I am saying now you have first a UHF transmitter of 1 kilowatt or whatever we use as a base—and 1 goes a hundred times, and if we then make that hundred times to be whatever is the maximum possible today—which might be 1,000 or 5,000 kilowatts—then one has the possibility of doing a very excellent job in serving an average good area.

Then the competition, you see, doesn't quite come up in the same way, because you have a good enough signal. The only thing you might not have with a UHF transmitter is the ability to go to great distances.

Mr. Cox. You discussed the operation of this experimental booster at Jackson, Miss. Was that a booster which reflected the signal on the same channel or did it involve translating it to another channel?

Mr. ENGSTROM. On the same channel.

Mr. Cox. Did you discover any difficulties with interference in the area with direct reception of the mother signal, or was that pretty well spent?

Mr. Cox. Not in that particular setup, because it was the hill which obstructed the prime signal. By putting the amplified second transmitter signal on the far side of the hill from the prime signal and making it sufficiently strong, we did not have interference between the two.

Mr. Cox. Then your general conclusion was that in some areas, at least, on-channel boosters can serve to fill in.

Mr. ENGSTROM. Same channel boosters; yes.

Mr. Cox. In discussing the development in reducing the noise factor in receiving sets, you indicated the UHF receivers were still not as satisfactory as the V receivers. In your opinion, is further progress along those lines likely to take place if there is any incentive to manufacturers?

Mr. ENGSTROM. Oh, yes; if there is incentive to do this for reasons other than television, because these same tubes, you see, are useful in communications equipment and military equipment, and the work is going forward. The point I wanted to make is that it is an area which has already received very extensive coverage, and progress is being made, but the progress is incremental in terms of the final objective.

Mr. Cox. You proposed the authorization of directional antennas?

Mr. ENGSTROM. Yes.

Mr. Cox. Could you tell us very briefly what advantage that would have for a UHF station?

Mr. ENGSTROM. Suppose we have, for an example, an area to be served which is on a seacoast; or to make my example ridiculously simple, we have an area which is built up to a certain edge and beyond that there is desert, and there is no need to serve it. One might then put a directional antenna toward the sea, but with the signal faced away from the sea so as to cover the area by that process.

This means, then, that one would concentrate the signal over the area where people live and wish to have service and not waste the signal over on the other side. There are a number of instances where that would be helpful. It is also helpful, in some conditions, to reduce the interference which this transmitter would create with respect to another on-channel transmitter at some other location behind the antenna.

Mr. Cox. So it might permit the use of this channel at less than the present minimum separations?

Mr. ENGSTROM. That is very dangerous to answer "Yes" to, because the present allocation plan was very carefully thought out as to station separations and there are some cases where this would be effective; but it is certainly not generally applicable because one, of course, in going to a directional antenna, in going to maximum powers, does lay down a very strong signal.

Mr. Cox. You discussed the desirability of encouraging the production of all-channel color sets through elimination of the excise tax or otherwise.

Mr. ENGSTROM. Yes.

Mr. Cox. I think this should be made clear for the record. My understanding would be, of course, that those sets, being compatible, would be all-channel black-and-white sets as well.

Mr. ENGSTROM. Yes, sir.

Mr. Cox. In other words, the color sets that RCA is now manufacturing receive all 82 channels, regardless of whether it is broadcast in color or black-and-white?

Mr. ENGSTROM. Yes, sir. I have only one set in my home. It is a color set, and we use it for both black-and-white and color.

Mr. Cox. You indicated that you felt that deintermixture was advisable, at least in enough areas to provide a substantial base for the continued growth of UHF. A witness who appeared before the committee earlier—Mr. Storer, of Storer Broadcasting Co.—outlined a plan which would, as I recall it, lead to the development of 25 markets which would either be all UHF or with only 1 V, and which would contain 20 million people and 4 million sets. Could you give us any opinion as to whether or not that would be such a substantial foundation as to provide continued incentive for the development of UHF receivers and transmitters?

Mr. ENGSTROM. I will have to limit my response to the numerical figures which you have outlined, because I am not directly familiar with Mr. Storer's presentation. I think so, yes, because what one needs is a base which is large enough to encourage the manufacturers and those who sell the receivers to put on a drive to see that more receivers are sold.

Mr. Cox. On the contrary, I assume that you would feel that if something of this sort isn't done, and if UHF stations continue to go off the air, this is likely to have a deadening effect upon the development of equipment for use on these frequencies?

Mr. ENGSTROM. Yes. I indicated that the trend with respect to the percentage of receivers made by industry is not encouraging, because one would have expected that if we were on the upgrade, the percentage would have gone up during 1955. Rather, the percentage went down during 1955, and the promise for this year may not be as good as for 1955.

Mr. Cox. In connection with the possible development of translators, the FCC now has a proposal for using the channels from 70 to 83. Are there any special problems in the operation of television receivers in connection with the use of those channels?

Mr. ENGSTROM. None that are not a part of the characteristics which I have already outlined. That is, one must have a signal strong enough to operate in the area to be served.

Mr. Cox. Is there any tendency for the oscillator tube or other elements of the set to be less effective, or to wear out more quickly, as far as reception in that part of the band is concerned?

Mr. ENGSTROM. Not to wear out more quickly; but again, as one goes to the higher frequencies, oscillator stability problems become more difficult, the signal and noise become less favorable, and things of that kind. But otherwise, no differences.

Mr. Cox. However, perhaps those problems would not be so serious where the translated signal would just be broadcast within a limited range?

Mr. ENGSTROM. And strong enough to cover the particular area; yes, sir.

Mr. Cox. Just one other point. There has been some suggestion, of course, of the possibility of getting additional spectrum space from other services in the VHF band. I think one of the members of the Commission expressed the opinion that if that were done, the cost of converting existing sets to receive these channels would be very, very slight—perhaps \$1. Would you have any information which would permit you to tell the committee whether that is reasonable or whether these conversions would probably cost as much as a conversion from V to U?

Mr. ENGSTROM. I think I have to borrow from my general experience of knowledge of what people do in respect to conversions of any kind. There are probably a small percentage of receivers on the market which have strip tuners and which therefore might be changed. But the average tuner as it is now built may not readily be changed.

I think therefore we would begin with a situation which would differ from the UHF situation in that we would have 37 million sets today which could not receive the new channel. Users would convert a few, but I think that those channels would become available primarily through a change on the part of manufacturers, so that new receivers after the date of such decision would come equipped with those channels.

There is this difference. To add a channel or two in the VHF band costs something, but it does not cost as much as to add a UHF channel; but the compatibility problem remains. I do not, for one, believe that the American people will buy enough converters to change what they have to make that very significant.

Senator SCHOEPEL. Thank you, Dr. Engstrom.

I understand Mr. Ferman is here. You have a short statement, I understand. We will hear from you now because I must alert everyone that, with the Senate in session, if there is a vote, we will have to recess or close.

You may proceed, sir.

**STATEMENT OF IRVING FERMAN, DIRECTOR, WASHINGTON, D. C.,
OFFICE, AMERICAN CIVIL LIBERTIES UNION**

Mr. FERMAN. My name is Irving Ferman. I speak in behalf of the American Civil Liberties Union as its Washington, D. C., director. The American Civil Liberties Union is a private, nonpartisan organization devoted to the promotion of the Bill of Rights. Much of our work very naturally involves the protection of the individual rights guaranteed by the first 10 amendments. However, our concern likewise extends, particularly in matters relating to free expression, to the social utility of these freedoms.

In America, we protect the individual's right to express himself for a very simple reason—because we believe in the solemnity and dignity and worth of man. This unshakable belief is part of the basic religious fabric not only of the great American community, but of Western civilization itself.

A flourishing of expression and communications in a society reflects not only the moral strength in the individual, but the moral strength of society itself.

It is not without significance that, in these critical times, freedom of expression promises to become the great weapon in democracy's arsenal of defense in its life-death struggle with Communist totalitarianism. If we have indeed reached an armaments stalemate, it is our distinctive powers of freedom upon which we must rely, and it is with these very same powers that we shall win.

The responsiveness of a free nation to truth and intelligence is its secret source of health and nurture. Our ability to maintain this responsiveness, this flexibility, may well spell the difference between victory and defeat for the free world.

And we know such responsiveness can thrive only in a field where many diverse and different ideas are able to grow and mingle, struggle, and survive.

The great sinews of American individual expression lie in our mediums of mass communications. Upon the health and vitality of our mass mediums there depend the health and vitality of our culture and our life. This is why the television mediums constitute one of the great promises of our free society, for it is the most extensive and penetrating ever devised by man. Because of this, the American Civil Liberties Union is deeply concerned with the wise formulation of licensing policies for the television as well as the radio spectrum, lest the overriding public interest be lost from sight.

The television mediums, as well as the radio, present special problems because of the technical questions concerning allocation of space on the spectrum. Contrary to the mediums which present the printed word—there is no limit to the number and variety of publications so long as paper and printing presses are available—the assignment of space on the spectrum offers real challenges to diversity of expression. The problem of ultrahigh frequency, with which this committee is now wrestling, only highlights the seriousness of the problem.

The American Civil Liberties Union in terms of its interest has noted with grave concern the competitive disadvantage of UHF channels in relation to VHF channels.

The facts of the competitive disadvantage of UHF have been ably explored by this committee under its present chairman and under Senator Potter.

The Federal Communications Commission's distribution of channels over 2 frequencies has made it economically impractical for almost 85 percent of the television spectrum to continue in existence. This has resulted in a sharp limitation of diversified program sources and an inadequate number of stations, particularly at the significant grass-roots level.

The present usable television broadcasting channels are entirely inadequate to supply a diversified, free, and competitive communications service for the entire needs of the public.

Approximately 15 percent of the total radio frequency spectrum is now allocated to public AM, FM, and TV broadcasting. But of the 82 channels allocated to TV broadcasting, the 70 UHF channels have proven to be unusable in all but a small proportion of exclusive UHF areas because of the initial licensing of the 12 VHF channels and the high costs of conversion to the public.

The great social impact of TV broadcasting may justify even radical measures of channel reallocation and expansion at the expense, if necessary, of some of the Government and private services which now occupy 85 percent of the spectrum.

The 12 usable VHF channels provide a wholly inadequate diversity of services as well as opportunity for free development of television for the public's total needs. Based on data from the A. C. Nielsen Co., it is estimated that 5 percent of the population can receive no stations; 9 percent, only 1 station; 10 percent, 2 stations; and 21, 3 stations.

The average choice of stations is only 3½. A recent Federal Communications Commission report acknowledged that 25 percent of the population had access to none, or only 1, station.

This lack of freedom of choice is also reflected in the present usage of television. Thirty percent of United States homes are still not equipped with receivers. An average of 40 percent of United States homes do not use their television sets even in the popular evening hours.

Recognition of the need for expansion has been recognized in the Federal Communications Commission. Commissioner Lee has proposed expanding the VHF band to 45 channels. Ex-Commissioner Craven has called for a minimum of 65 channels. As Commissioner Hyde recently stated :

The basic issue is whether the United States, with its growing economy and its expanding need for communication service, and particularly for television service, is going to have a system with low ceilings built in or whether or not it is going to have a system with sufficient number of channels to give opportunity for development of a comprehensive, competitive free enterprise system.

Proponents of pay television emphasize that if adequate channels were available and exclusively licensed for pay use to avoid displacement of free broadcasting, the broadcast communications mediums could have the same opportunity to develop diversified smaller audiences as the paid print mediums. While the union has not taken any position on the problem of subscription TV, an expansion of TV channels could certainly meet one of the major objections of subscription TV opponents, that it will cut into existing free TV service.

The public interest dictates that underlying the policy of licensing and allocating channels there be an attempt to insure the greatest number of economically secure outlets, so that we can achieve and maintain within the framework of the mediums the widest diversity of views, of expression, indeed, even of cultures.

All of these factors point clearly to one direction—that before the Senate considers the specific proposals suggested to relieve the TV problem, a basic congressional study of the inadequacy of present service and the present and future public needs for broadcasting services be made. In such a study, the Congress should be guided by authorities from all institutions which conduct or are served by the communications mediums. Independent representation from journalism, publishing, education, social and political science would be vital. Needless to say, the proposed study should not concern itself with the content of programs, for program review could lead to undesired Government interference with opinion, but solely with the issue of multiplicity of channels.

We further urge that the present study by the Federal Communications Commission of its allocating policies be pursued to a conclusion as quickly as possible so that present licensing will be conducted more in line with the public interest.

What should be emphasized, however, is that the leaders of American television industry thus far have displayed a high degree of social responsibility, so that the mediums in its short life has contributed much to American thought, suggesting an even greater promise.

Senator SCHOEPEL. Thank you, Mr. Ferman.

Mr. Cox. Thank you very much, Mr. Ferman.

Senator SCHOEPEL. Mr. Biemiller.

STATEMENT OF ANDREW J. BIEMILLER, LEGISLATIVE REPRESENTATIVE, AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS

Mr. BIEMILLER. Senator, with your permission, I will summarize the first three pages if you will consider them as read for the record, and then will concentrate on the last couple of pages.

Senator SCHOEPEL. That will be helpful indeed. You may proceed in your own way, sir.

Mr. BIEMILLER. Mr. Chairman, my name is Andrew J. Biemiller. I am a legislative representative for the American Federation of Labor and Congress of Industrial Organizations, with offices at 901 Massachusetts NW., Washington, D. C.

We welcome the opportunity to appear here today and place in the record certain views of the labor movement on some of the questions within the scope of this hearing. I further understand that when this committee reaches the item of pay-as-you-see television, we will be given additional time to set forth our views on that question.

First, I wish to place in the record a letter sent on December 15, 1955, to the Chairman and the members of the Federal Communications Commission by President Meany of the AFL-CIO. That letter read:

The AFL-CIO, an organization of 15 million Americans, joins with the Federal Communications Commission in its concern over the present state of the development of television. Pursuant to your general invitation of November 10, 1955, I welcome this opportunity of submitting preliminary comments concerning this important problem.

The American public has made television possible. It has purchased over 37 million TV sets. It spends its valuable leisure time at these sets. Organized labor has a great stake in the sound development of our TV system which your notice of proposed rulemaking indicates you intend to reconsider on an overall basis.

The phenomenal growth of TV and its widespread acceptance has outstripped all expectation. At stake here is whether the American people are to eventually have a nationwide system of 2,000 TV stations, or to be cut down to a system of scarcity of stations with time available only to the largest corporations in industry.

The basic premise on which we all agree is that TV spectrum space is in the public domain. It is therefore the Commission's obligation to plan and allocate enough channels in such a manner as to avoid hampering future growth. This proceeding, in my judgment, should be geared to having as many channels as possible, for as many TV stations as possible, in as many communities as possible.

In 1952, the Commission's allocation plan recognized this need and allocated 82 TV channels for the development of a nationwide competitive system. It is a source of deep disappointment to me to read in your notice that this system is not being developed.

I agree with the three objectives summarized in your notice as constituting the basic philosophy of establishing such a system. You stated these objectives as follows:

- (a) At least one service to all areas;
- (b) At least one station in the largest possible number of communities;
- (c) Multiple services in as many communities as possible to provide program choice, and to facilitate competition.

To accomplish this goal, I believe the Commission should preserve and encourage as full use as possible of the 82 channels provided for in the 1952 decision.

In addition to the use of these 82 TV channels for commercial purposes, the future of educational TV also is at stake. You know, of course, the role of organized labor in the development of the American public-school system. Labor has for many years also been vitally concerned with educational radio and TV. It has vigorously supported the educational TV reservation made by your Commission, by appearing in those hearings.

Any proposed cutback in the number of TV channels will threaten these reserved channels and endanger the future of a nationwide educational TV system. Needless to say, with the critical condition in which American education finds itself today, any curtailment in the educational reservation would be a disastrous blow to the American people.

The merger convention of the AFL-CIO adopted a resolution on education which contains a section on educational TV. That section reads:

We believe that educational TV has proved its value where stations have been established and we insist the Federal Communications Commission continue to reserve the channels set aside exclusively for educational purposes.

All TV educational stations should have an operating committee fully representative of all interests in the community.

Mr. Chairman, our membership is vitally interested in protecting the channels reserved for educational TV. When this question was before the FCC in 1950, President Meany, then secretary-treasurer of the AFL, made a statement before the Commission. He said in part:

It has frequently been said that in spite of the many avenues of communication that have been developed in the modern world, we continue to be poorly informed on many vital problems. We believe the best way to guard against this is to give every possible assurance that the avenues of communication are made available to all groups in society. It is important for members of labor organizations to obtain information regarding the problems, conditions of work and viewpoint of farmers, businessmen, housewives, and governmental and professional leaders. It is no less important that members of such groups should have the opportunity to learn of the experiences, problems and conditions of work and aspirations of the 16 million members of organized labor.

The interests of labor and the interests of the broader community are for the most part identical. It is essential in these days and in the days ahead that our common interests should be emphasized and the basis of our differences be understood.

Radio and television have made some contribution to establishing a common basis of understanding. The history of the last 25 years, however, has shown that radio has not played the great role educationally that was expected of it. Television offers even broader areas of appeal and possibilities of utilization in developing educational programs. Indeed, there is the real possibility that radio and television may be used to supplement each other for educational purposes. It is that hope that impels us to urge that the maximum possible provision for the use of television in education be made by your Commission.

In the event your Commission approves this request, we urge (1) that sponsorship of such facilities be encouraged on the widest possible basis. We favor the sponsorship of such stations by broadly representative committees, or under the joint auspices of several educational institutions. In metropolitan areas, there are usually a number of colleges, universities and nonprofit institutions which carry active educational programs.

(2) The quality and scope of the educational station should be improved and constantly widened. The experience in the development of programs should be made available to other stations.

(3) We urge that your Commission require stations licensed for educational purposes to give reasonably adequate reports of the nature and purpose of the programs offered. Such public reports would assist your Commission in appraising the work of the stations and would result in an exchange of techniques, ideas and material among stations and, above all, it would bring the station closer to the community it serves.

That statement is as valid today as it was in 1950. We trust that this committee will take all necessary steps to protect the present reservations for educational channels. The data we have submitted in

this statement, Senator, points out that we hope there will not have to be a curtailment of the UHF side of the spectrum. We are concerned that there has been talk of cutting back the number of stations that will be available to the American people. We are anxious to see the original program of two-thousand-odd stations maintained, and we trust that the FCC and your committee between you are going to find the proper solutions that make certain a competitive system is maintained and that the greatest possible service is made available to the American people.

We also are very anxious that the reservations that have been made in both VHF and UHF for educational channels should be continued. Our convention went out of its way—the merger convention of the AFL-CIO—insisting that educational TV has already proven its worth; that we think it has a great potential for the future; and we trust that those channels will be maintained as educational channels.

We believe that there is in these stations a potential that is badly needed for strengthening our educational system in America. I am sure no one has to argue that we have grave deficiencies at the present time in education in America, and we think this is one way of taking care of some of the difficulties which do confront us.

I would, sir, like to call your attention to our statement starting at the bottom of page 3.

We also desire to direct the attention of the committee to the Biscayne Television Corp. case. This case involves the grant of channel 7 in Miami, Fla., to this corporation.

The executive council of the American Federation of Labor protested the examiner's decision favoring this grant in letters to the chairman and members of the FCC on March 4, 1955. The action of the executive council was taken at the request of the Dade County, Fla., Central Labor Union.

We objected on the grounds that (1) 85 percent of the stock of the Biscayne Television Corp. is equally owned by the owner and key personnel of the Miami Daily News and the owner and key personnel of the Miami Herald; (2) the Miami Herald and the Miami Daily News own and control two large radio stations in the area; (3) the ownership of the newspapers and the radio stations are both absentee as none of the major stockholders reside in Miami; and (4) both newspapers have had antilabor news and editorial policy.

However, the Commission made the grant in January 1956. The grant has been appealed and the matter is now before the courts.

The labor movement has been concerned for some time over the tendency in the newspaper and radio field toward combination of large interests which would result in this most important phase of American life, dissemination of news, being in complete control of a few individuals in any given area.

It is our considered opinion that ownership of three kinds of mass media—newspapers, radio, and television—by the same group of people in any area is against the public interest. The key personnel of the 2 newspapers in the Miami area own between them 85 percent of the new television corporation, which will also have title to the most powerful radio station. This is an obvious concentration of control of all types of media in the hands of a very few people.

As an indication of community of interest between these Miami papers, we find that when the typographical employees of the Miami

Herald went on strike some 7 years ago, the management of the Daily News immediately locked out its typographical employees. Now we find the key personnel of these papers joined together in control of an important television channel. The vast population of this area will for all practical purposes have to rely on a very few individuals for the dissemination of news by all media.

Organized labor has always been in the forefront of the fight for freedom of the press. It is our belief that nothing could be more detrimental to the maintenance of freedom of the press than to have control of the media for news dissemination go into the hands of a monopoly. If monopolistic control of news media should become widespread throughout the country, it is inevitable there will be an eventual public demand for Government control of news dissemination media, if not for Government ownership. This is an eventuality we should not like to see occur.

We respectfully request that this committee carefully investigate all aspects of the circumstances surrounding the granting of the license to the Biscayne Corp. and the probable effects of this decision on the growth of monopoly trends in the news media field. We also urge that the committee request the FCC to stay a construction permit to the Biscayne Corp. until the committee has an opportunity to consider the monopoly implication of this grant and the courts have had an opportunity to rule on the issues under appeal. It is all too plain from past experiences that once a station is constructed, it is almost impossible to obtain reversal of a grant by any procedure.

That, sir, concludes our testimony.

Senator SCHOEPPEL. Thank you, Mr. Biemiller. The counsel desires to ask some questions.

Mr. COX. With regard to this last matter that you have discussed, Mr. Biemiller, did you seek formally to intervene in the FCC procedure?

Mr. BIEMILLER. Yes; we did so seek and were turned down on the grounds that the rules would not permit a third party intervenor, in effect.

Mr. COX. Then you are not involved in the current court test?

Mr. BIEMILLER. We are not in the current court test. Our membership, which is roughly 50,000 in the Miami area—Dade County Central Labor Union—has repeatedly, however, insisted that it believes the public interest is not being served. It is in that guise that we are still trying to find some way of getting a thorough examination of what we consider to be a dangerous monopolistic trend in this area.

Mr. COX. Are you by any chance familiar with the testimony that was given before this committee earlier in this series of hearings on the question of the antitrust laws by members of the Commission and by Judge Barnes from the Antitrust Division of Justice?

Mr. BIEMILLER. No, sir; I am not.

Mr. COX. They presented to the committee certain views as to their respective roles in enforcing the antitrust laws in the communications field. I was leading up to a question as to whether or not any sort of approach had been made to the Department of Justice itself on the ground that you had reason to believe that this was leading to an undesirable monopoly in the mediums of expression in this particular area?

Mr. BIEMILLER. To the best of my knowledge, no. We have approached the Antimonopoly Committee of the Senate Judiciary Committee, but to the best of my knowledge there has been no direct approach made to the Department of Justice.

Mr. Cox. In the nature of things, of course, with this matter now before the court of appeals, would it be fair to say that substantially what you are asking the committee and Congress to do is to give consideration to this problem, at least in general, so that if legislation for the future seemed desirable, it might be taken? In other words, legislatively, it would be a little difficult to do something about a fait accompli in a particular area. You are looking to the general problem of concentration in the medium of mass communications?

Mr. BIEMILLER. Yes, plus, however, Mr. Cox, the fact that in the opinion of some of our people who have looked at this case, they are not so sure but what the Commission hasn't in effect changed its own rules. That, I recognize, is probably a court matter. But it is something this committee might want to take a look at and see whether there has been a substantial change in the earlier rules of procedure of the Commission itself.

Senator SCHOEPEL. Thank you very much, Mr. Biemiller. I regret the delay this morning, but it was absolutely unavoidable.

The hearings will be recessed until Friday, at 10 o'clock in this room.

(Thereupon, at 12:17 p. m., the subcommittee recessed, to reconvene Friday morning, 10 a. m., March 16, 1956, in room P-38, Capitol Building.)

TELEVISION INQUIRY (UHF-VHF Allocation Problem)

FRIDAY, MARCH 16, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10:20 a. m., in room P-38, United States Capitol, Senator John O. Pastore presiding.

Present: Senators Pastore and Thurmond.

Senator PASTORE. Our first witness this morning is Mr. H. Leslie Hoffman. Mr. Hoffman, we want to thank you for coming. You may proceed to deal with your statement in any fashion you may desire.

STATEMENT OF H. LESLIE HOFFMAN, PRESIDENT OF RADIO-ELECTRONICS-TELEVISION MANUFACTURERS ASSOCIATION

Mr. HOFFMAN. Mr. Senator, my name is H. Leslie Hoffman. I am president of the Radio-Electronics-Television Manufacturers Association, which has its headquarters in Washington, and I am also president of the Hoffman Electronics Corp., a manufacturer of television receivers and other electronic products, located in Los Angeles, Calif.

This particular company is a company founded 15 years ago and it has grown from a small company of 3 people to 3,800 people. I am also chairman of the board of KOVR, a broadcasting station allocated to Stockton, Calif., and serving northern California.

However, my testimony as president of RETMA covers the manufacturing end of our business. If there are any questions regarding broadcasting, I would like to carry on that testimony as an individual, not as a representative of the industry.

Since 1924 RETMA has been the only national trade association representing the manufacturers of equipment and components now used in radio, television, and electronic devices. Its membership presently consists of 374 companies, many of which are engaged in the manufacture of television sets or their components.

We appreciate this opportunity to appear before the Senate Interstate and Foreign Commerce Committee and to explain the position of the equipment manufacturers in this highly important problem involving UHF and VHF television.

My statement will be based on the following facts:

(1) The ratio of UHF or all-channel television receivers to total TV set production is determined by public demand and is closely related to the ratio of UHF to VHF broadcasting services.

(2) The cost of all-channel TV sets is higher than that of VHF-only sets, because of certain more expensive components and a smaller production volume.

(3) The only practical means of equalizing the sales prices of all-channel receivers and VHF sets is to remove the 10-percent excise tax on UHF-VHF receivers.

(4) Manufacturers of television receivers, like other industrial producers, are in business to make a profit and dividends for their stockholders.

We manufacturers have a deep and obvious interest in the development and growth of television into a nationwide service, and, through our industry association, we have had an important part in bringing this about.

Two of our major all-industry contributions, effected through two national television system committees, were the development of transmission standards, first for black-and-white television and subsequently for color television. These standards, which were made possible by the cooperation of manufacturers and broadcasters, were subsequently made possible by the cooperation of manufacturers and broadcasters, were subsequently approved by the Federal Communications Commission and provided the technical basis for the compatible television system in operation today throughout the United States.

It has been estimated that the engineers under NTSC guidance voluntarily contributed 10 million man-hours toward the development of the color television standards alone. In addition, manufacturers willingly pooled the results of their research, without concern for patent rights, in order to bring color television as quickly as possible to the American public.

RETMA sponsored the first industry demonstration of UHF receiving equipment for members and the staff of the Federal Communications Commission in Bridgeport, Conn., in June 1951. The purpose of this demonstration was to convince the FCC and UHF broadcasters that reliable and satisfactory UHF reception was possible. Included in the demonstration were several types of UHF converters which subsequently were put on the market.

Set manufacturers have consistently made and sold as many all-channel receivers as the public would buy. They actually overestimated the market for these sets and the public interest in UHF during the first year or so following the lifting of the freeze.

I can testify to that myself, because we had an excess inventory.

When the purchase of these receivers did not measure up to the manufacturer's expectations and inventories got out of balance, manufacturers naturally reduced their production accordingly.

Senator PASTORE. Wasn't that more or less cause and effect? The fact of the matter was that UHF had not panned out economically—

Mr. HOFFMAN. It didn't get started, Senator, as far as we thought it would.

Senator PASTORE. Principally because of representations made by the members of the Commission themselves. I do not want you to comment on that, but I wanted to make that observation.

Mr. HOFFMAN. I won't comment on it.

Shall I go on?

Senator PASTORE. Yes.

UHF PRODUCTION RECORD

Mr. HOFFMAN. The industry's record of UHF production and conversion, particularly during the first 2 years, is rather remarkable for a new product. I think these figures are rather significant in that respect. Manufacturers through February 24, 1956, had produced 4,500,000 all-channel receivers, or approximately 15.8 percent of the 28,236,000 television receivers manufactured since the debut of UHF.

In addition, approximately 4 million television receivers, both new and old, have been converted outside the factory, either in the home or by distributors or dealers. Thus the total number of television receivers equipped for UHF reception since the first commercial UHF station was licensed in the summer of 1952 is 8,500,000. This represents approximately 22 percent of the total television receivers in use.

Senator PASTORE. Will you stop there just a moment? I will need just 2 minutes to get myself on the quorum and I will be right back.

(A short recess was taken.)

Mr. HOFFMAN. While no accurate figures are available on the number of households within the actual range of UHF stations, the RETMA statistical department has estimated that the maximum is 21 percent, and the actual number of homes able to receive a good UHF signal is probably substantially less.

People cannot be expected to buy UHF sets, however, unless there are UHF programs they want to see. When UHF stations go off the air, sales are adversely affected.

It is significant that 108 VHF television stations now on the air were approved by the FCC before UHF entered the picture. Since that time 264 VHF stations and 156 UHF stations have gone on the air. However, 58 UHF stations have discontinued operations as against 8 VHF stations.

It certainly must be obvious to members of this committee that television manufacturers have every reason to want as many TV stations in operation throughout the country as the economy will support. The more stations that are on the air, the more programs there are available, and the greater incentive there is for the purchase of a television receiver. While some set manufacturers—including myself—are also engaged in television broadcasting, the manufacturing operations of these companies are separate from broadcasting activities and are all stimulated by the same natural desire to sell as many television receivers as possible.

It never ceases to amaze me when I hear or read comments—sometimes by responsible Members of Congress—which state or imply that some manufacturers or the industry as a whole is engaged in a conspiracy to keep a new product, such as UHF, off the market.

Senator PASTORE. I don't think anybody in the Congress ever said that.

Mr. HOFFMAN. Yes, sir, they have, unfortunately.

Senator PASTORE. They have?

Mr. HOFFMAN. Yes, sir.

Senator PASTORE. That is news to me. Go ahead.

Mr. HOFFMAN. To anyone like myself who has encountered the intense competition and the aggressive salesmanship that is found in the radio-television industry, such a charge is absurd. I doubt that there is an industry in the United States today that is more competitive than ours. Each manufacturer is constantly striving to improve his product, to offer some additional sales appeal, and to undersell his competitors.

Unfortunately, I think we spend too much time on the last point.

Consequently when the Federal Communications Commission lifted the freeze and began licensing UHF television stations in the summer of 1952, manufacturers already had started producing all-channel receivers. Most of us envisioned a new stimulant to the television boom, particularly in the opening of new UHF markets. Many manufacturers felt that there would be a sharp trend away from VHF-only sets and toward all-channel receivers. In fact, there were predictions at the time that the VHF-only set would gradually disappear.

RETMA statistics, which are accepted as reliable by both industry and the Government, show that in the last quarter of 1953 the factory sales of UHF-VHF receivers, in proportion to all TV-set production, was 28 percent. However, by the second quarter of 1955 these sales had declined to about 13 percent.

RETMA statistics on UHF production and sales did not get under-way until the third quarter of 1953. Attached are tabulations which trace the rise and decline of UHF in (1) factory sales, and (2) factory inventories, while the third table shows the relation between UHF-set inventories and sales.

(These tabulations will be found beginning on p. 724.)

Mr. HOFFMAN. It is apparent from these statistics that manufacturers generally have maintained a more than adequate supply of UHF sets. For example, in January 1956, 16.4 percent of the total TV sets on hand were equipped for UHF reception. However, only 13.4 percent of total TV sales were UHF. These figures would indicate that manufacturers provide a greater supply of UHF sets than consumers demand.

I am going to ask Mr. Long, who heads up our statistical department, to explain this chart, Senator, if I may, which graphically portrays that.

Mr. LONG. This chart, sir, will illustrate Mr. Hoffman's remarks. There is a two-bar chart [indicating] for each quarter running from 1953 to 1955. The gray bar here is inventories; the blue one is sales. Both of these are presented as a percent of the total. For example here, the first quarter of 1953, UHF inventories were something less than 20 percent of all inventories. For this quarter, UHF sales were slightly more than the inventories.

You can observe here that, generally, manufacturers have maintained a more than adequate supply. Inventories have been greater than sales in terms of total percentages.

We had an overinventory situation of great magnitude in the first quarter of 1954, and that was corrected—overcorrected to some extent. With the exception of the fourth quarter of 1954, manufacturers have maintained more inventories than the public has demanded.

Mr. HOFFMAN. I might explain, Senator, that these figures include the inventories at the manufacturing level, at the distributor level, and at the retail level. So it is total pipeline inventories, rather than just one segment of the pipelines.

UHF SET COSTS MORE

The manufacture and sale of all-channel television receivers, like UHF broadcasting itself, is almost entirely a commercial or economic problem. The all-channel receiver costs more to manufacture than the VHF set for two reasons: The first is that it requires some more expensive components, and the second is that the higher unit cost is aggravated by the smaller volume of production. However, no increase in volume would eliminate the differential in cost.

The set manufacturer would have been happy when UHF began, and would be equally happy today, if he could convert all TV set production to the all-channel receiver. Such a conversion would reduce production operations and lower manufacturing costs. This saving would be passed on to the consumer in reduced retail prices. However, under our present pattern of TV broadcasting, such a practice would impose an additional and unnecessary cost on set purchasers in VHF-only areas, which, going back to our figures, would amount to 79 percent of the population.

From the beginning of UHF broadcasting, UHF converters were readily available at reasonable prices. Moreover, some types of VHF sets could be easily converted to UHF reception in the home at a moderate cost. Where UHF stations were successful in affiliating with one of the major networks, such conversions were made in substantial numbers. However, in other areas where independent UHF stations were attempting to compete with network VHF outlets, the rate of conversion was very small.

Our industry has had long and frustrating experiences with converters. When FM radio was in its heyday, many FM converters were on the market, but the lack of public interest eventually led to their disappearance. Very nearly the same thing has occurred with UHF converters. In addition to the public apathy toward conversion, the average housewife seems to have an aversion to disfiguring her television or radio receiver with any sort of gadget such as an exterior converter.

I would like to refer to our second chart here on this matter of conversions which I think is rather interesting.

Mr. LONG. This chart shows the situation monthly from July 1953, through January of 1956. The blue area represents the number of sets sold which were factory equipped for UHF. The gray area represents the number of sets that were converted for UHF reception. Of course the total of the two would represent the total consumer acquisitions of sets able to receive the UHF signal.

What I would like to call to your attention is that, generally, factory sales of UHF-equipped sets have remained fairly constant. It is this conversion that has shown a marked decrease. Here [indicating] the consumer conversions of VHF sets to UHF were quite substantial. We find that currently it is almost insignificant.

Senator PASTORE. Would you go a step further on that? Would the blue represent the markets that were originally UHF exclusively,

and the gray, the VHF markets where a U came in and the viewers wanted to adapt themselves to that new channel?

Mr. LONG. No sir; I don't believe you can draw that conclusion. We could say that the gray are VHF sets that consumers had attached a strip or converter to, and converted them to UHF reception.

Senator PASTORE. But I am asking the question: Why do you think so?

Mr. HOFFMAN. I would like to take that question on, perhaps, Senator.

Senator PASTORE. All right.

Mr. HOFFMAN. I think what happened, in the early days when we had the 108 stations, is that many stations were in what we call fringe areas and had VHF sets, and they had these big, tall 100-foot towers and so forth. Then when a UHF station was put in their market, they already had the receiver and their antenna up, and so forth, so they merely adapted it to get the UHF channel in that particular market. I think that occurred in many places.

Senator PASTORE. Let me ask you this other question, man to man: Has the industry any interest in preserving the UHF system of broadcasting in any way?

Mr. HOFFMAN. We have an intense interest to preserve it.

Senator PASTORE. Why?

Mr. HOFFMAN. No. 1, we are vitally interested in establishing the objective of the frequency allocations system, and that is a fully competitive nationwide service.

Senator PASTORE. Why do you say then, that you will only manufacture those units the public will buy?

Mr. HOFFMAN. Because our business is an economic business.

Senator PASTORE. Then you have no particular interest in preserving the UHF as a broadcasting system. You are only interested in making the sets that the public will buy?

Mr. HOFFMAN. Well, I think our businesses are commercial enterprises, Senator.

Senator PASTORE. I am not being critical of you. I just want to find out if you have any interest in the preservation of this UHF system other than making only those sets that the public itself is willing to buy, which is something beyond you.

Mr. HOFFMAN. Senator, let me answer your question this way: I think, No. 1, I have tried to prove through my previous remarks—and we have some other facts here that we will put before you—that the industry, and the individual manufacturers collectively, have done a great deal as far as trying to preserve UHF in the development of the proper equipment to get a good signal, both in the broadcasting and the receiving end of it.

Our end of it happens to be the receiving end of it. We think that we have made very material technical contributions.

Senator PASTORE. I think you are entitled to know, Mr. Hoffman, why I am asking you this question. I am not trying to put you on the spot in any way, because, after all, I am one of those who has been around long enough to know that industry, of course, is going to manufacture these sets only as long as they can sell them. They are going to manufacture the sets that the public is willing to buy. I think that a lot of us are running off with the idea that they are going to begin to manufacture these all-channel sets, come what may, just

for the love of preserving the UHF band—and I don't think that is in the minds of the manufacturers at all.

Mr. HOFFMAN. We wouldn't be able to keep the love of our stockholders, Senator. [Laughter.]

Senator PASTORE. That is right. We ought to face the realities of life. I think too many people in this whole problem are kidding themselves about what is going to happen. I think you have developed the idea here that about the only thing that will equalize this disparity in cost is this thing of the excise tax.

Mr. HOFFMAN. Yes, sir; you are absolutely right.

Senator PASTORE. If, economically, you are going to absorb the difference in the rate that you might get from a tax consideration, you might consider it. Doesn't it boil down to that?

Mr. HOFFMAN. To answer your question directly, I can give you a definite "Yes"; that we would build all-wave if the tax was taken off of all-wave sets.

Senator PASTORE. In other words, if UHF is going to be saved, the Commission better save it itself, because the industry isn't going to save it.

Mr. HOFFMAN. The Commission does not have the right, nor the power, to remove the excise tax on all these sets.

Senator PASTORE. I am not saying that. I am just saying that they could develop a competitive system of integration—I don't mean "integration," but intermixture and deintermixture.

Mr. HOFFMAN. I am glad to see that a Senator gets mixed up in these Washington words as well as myself.

Mr. Cox. Would it be fair to say, Mr. Hoffman, that you would feel that the set manufacturers have an interest in UHF in that if UHF could be made a viable part of the television system, it would develop a broader base for broadcasting and there would be more sets sold, so that to that extent you have such interest?

Mr. HOFFMAN. Yes, you are absolutely correct, Mr. Cox.

Senator PASTORE. But before you get to answering that question, the basis for that is going to come from a public demand and not from the manufacturer.

Mr. HOFFMAN. That's correct.

Senator PASTORE. Let's face it.

Mr. HOFFMAN. We are the suppliers of equipment that the public uses. I think that—if I may use my own words—this may perhaps be pertinent to your question. A television set is a set to receive a show. That is all it is. We sell the set to get the show. If the people are interested in the show, they will buy the set. If they are not interested in the show, they won't buy the set. We are in that business.

Senator PASTORE. You can only sell the set if they are willing to buy it.

Mr. HOFFMAN. That's right.

Mr. Cox. And if there is no UHF signal in the area, there is no show for which they would have any incentive to buy the set?

Mr. HOFFMAN. There is no reason for them to buy that particular set.

Senator PASTORE. But if the demand is strictly VHF, the manufacturers are not going to go to the trouble of developing and spending time on research for UHF or all-channel sets and for improving

them, if there isn't going to be a demand in the market for the purchase of these sets.

Mr. HOFFMAN. As we pointed out here, Senator, we have done a great deal of work and original pioneering and developing of equipment to utilize the spectrum that the Commission has allocated for this—this additional spectrum for these UHF channels. I know in our own particular instance and our own companies, we went ahead as many other companies did and ordered strips for a lot of channels we thought were going on the air, but that did not go on the air, and we have taken a pretty sizable writeoff for 3 years on those particular strips.

Senator PASTORE. Would you venture an opinion on this: A lot of people are saying around here that the answer to this problem would be all-channel sets. As a matter of fact, all-channel sets may be an answer to the problem. Would you venture an opinion on this question: Insofar as the manufacturers are concerned, they are not going to get into manufacturing all-channel sets unless, from the standpoint of economics, it is profitable for them to do so?

Mr. HOFFMAN. That is correct.

Senator PASTORE. And for that reason, it is only a question of profits.

Mr. HOFFMAN. It is a matter of responsibility to our stockholders.

Senator PASTORE. I can understand that.

Mr. HOFFMAN. Shall I go on?

Senator PASTORE. Yes, please.

UHF AND COLOR SETS

Mr. HOFFMAN. A question has been raised in this committee as to whether set manufacturers are now producing, or planning to produce, all color TV receivers with UHF reception facilities. At the request of your staff, RETMA has polled all of the set manufacturers in its membership and has come up with the following data based on an estimated 95 percent of color TV production in 1956: 66.5 percent of the color television receivers manufactured in January and February of this year were factory equipped to receive UHF signals.

However, the same companies which reported production during this period stated, in answer to a question, that only 10.6 percent of the color sets they plan to produce during the remainder of 1956 will be equipped to receive UHF telecasts.

The following comments, taken from responses to the RETMA questionnaires, explain why these manufacturers are planning to reduce drastically their ratios of all-channel color TV sets:

For the remainder of 1956 we will incorporate UHF tuners in 5 to 10 percent of our UHF (color) sets unless the excise tax is removed from all-channel color sets. In that case we will go 100 percent UHF-VHF.

Our percent of color sets containing UHF is primarily determined by the substantial inventory we now have of unsold UHF monochrome TV sets. There has been a very disappointing sales volume of monochrome in UHF markets.

If there is appropriate excise tax legislation to remove the present price differential due to cost as between all-channel and VHF-only receivers, we would expect that our entire color receiver production during 1956 would be all-channel receiver sets. Failing this legislation, competitive reasons will require that our production of all-channel color sets be about 20 percent of our total output and VHF-only color sets about 80 percent of our output.

THE EXCISE-TAX PROPOSAL

There is no single or quick solution to the television-allocation problem. Any solution is likely to involve a number of measures and to take considerable time. Many measures that are under consideration are highly controversial. There is one proposal, however, which has met with widespread approval. It is the proposal to encourage UHF broadcasting by removing the 10 percent manufacturers' excise tax from all-channel sets and thereby put it on a par pricewise with VHF.

This proposal was made by RETMA on May 19, 1954, before the hearings being held at that time by a subcommittee of this committee. It was endorsed immediately by then Chairman Hyde on behalf of the Federal Communications Commission. Since that time the proposal has been supported by many spokesmen in industry and Government. The subcommittee, we understand, requested the Senate Finance Committee, following the RETMA testimony of May 1954, to remove the excise tax from all-channel sets. Senator Johnson introduced a proposed amendment on the subject to be made part of the Internal Revenue Code of 1954. The Senate Interstate and Foreign Commerce Committee approved it. The Senate Finance Committee concurred in principle, but, on the advice of the Treasury, altered the tax proposal to a less desirable \$7 credit on each all-channel receiver. The legislation, however, died in the adjournment rush. In January of 1955, Representative Ikard revived the original tax-removal proposal in H. R. 4070, but it was rejected by the House Ways and Means Committee. That sort of gives you the background of this particular situation.

No one contends that the removal of the excise tax would be a panacea for all the ills of UHF. Everyone must admit, however, that it would go a long way toward stopping the deadly downward drift of UHF which our statistics have just shown. It is unfortunate that Congress did not adopt our recommendation 2 years ago. If it had done so, it is our supposition that virtually the entire manufacture of television receiving sets would have been shifted promptly to all-channel sets. In round numbers that would have meant the entire 2 years' production, of 15½ million sets, would have been capable of receiving UHF. Instead, only 2½ million all-channel sets have been sold during the period. The impetus that an additional 13 million UHF sets in the hands of the public would give to UHF broadcasting today is incalculable. (RETMA Statistical Department figures show factory production of 15,401,220 TV sets during period March 1, 1954, to February 24, 1956, of which 2,512,807 were VHF-UHF.)

While it is unfortunate that these 2 years have been lost, it is still not too late, and we renew our recommendation as the only realistic method of inducing customers to buy all-channel receivers.

The manufacturers' excise tax should never have been imposed on television sets in the first place. The Treasury recommendations for imposition of the tax were rejected by Congress on three separate occasions, and were adopted only at the outbreak of the Korean war, and then as an emergency revenue measure. Television is an instrument of public education and enlightenment, and is an important means of the mass education so crucial to the preservation of American freedom and self-government in these times. There is every reason that the distribution of sets should be encouraged by our Gov-

ernment—not penalized. There is no logic to selecting such an instrument for the imposition of a selective and discriminatory excise tax.

It is time for the Government to stop discriminating against the television industry. I doubt that the members of the committee are fully aware of the extent of this discrimination. The history of our Government's recent tax policy has been replete with it:

(1) Two years ago Congress reduced from 10 percent to 5 percent the tax on virtually all products of the American home that were subject to tax except television sets and radios. Now refrigerators and other appliances pay a 5 percent tax, while television sets and phonographs pay 60 percent of the excise tax on durable home products subject to tax, although they represent only 44 percent of factory sales of such products.

(2) Great damage is being done today by the imposition of the 10-percent tax to the infant product—color television. This is being done despite the fact that Congress has traditionally withheld the heavy hand of excise taxation from new products until they had a chance to reach mass production. No reason has been given to explain why color television should not have the same chance as other infant products. At least color television should have the same breathing spell that was given the other products of our own industry—radios, phonographs, records, and black-and-white television. That means taking the tax off color sets now.

I would like to comment off of this particular prepared script just for a moment on that—and that is this comment: I think this idea of taxing new products by the Government is most unfortunate for the economy at large, because our industry has grown from a \$400 million industry prewar to a \$2 billion industry today—75 percent of the employment in our industry is on products that 10 years ago we didn't even know about.

In addition to that, this employment has been a great stimulant to the economy as well. Everybody—the financial advisers, the boys that are going through school—everybody that is looking to the future knows there is a great future in electronics. Why burden this new industry with discriminatory taxes?

There is another factor on this, and I can speak with a certain amount of feeling on this particular phase of it, and that is that in a new industry—as a new industry gets started—it gives birth to new companies. It gives opportunity to smaller companies. A smaller company can move faster than a large company, particularly in the early days of a new industry. As a matter of fact, that is how I got started in this business. I was able to move faster than some of the large people in the industry, and I got my start, and I have held on. But this industry is a great stimulant to the economy, and to put discriminatory taxes on these various things is like taking a yearling colt and saddling him with a handicap of 132 pounds. It is just all wrong.

(3) Only last Tuesday, March 13, the Forand subcommittee of the House Ways and Means Committee invited the attention of the full committee to the possibility of cutting the tax on cabarets in half. The subcommittee also announced that it had decided to recommend raising additional revenue from our industry by imposing the full 10-percent tax on transistors, record players, and wire and tape recorders. The conclusion to be drawn from these announcements is

that our industry may be asked to pay more discriminatory excise taxes in order to provide relief for nightclubs.

The point I am trying to make is this: Since the public will be benefited by removal of the tax from all-channel sets, it is very appropriate that such relief be enacted because this industry is bearing more than its fair share of excise taxes.

However, let me make one thing crystal clear: The manufacturers are not asking for removal of the tax from all-channel sets in order to benefit the manufacturing industry. We have proposed to Congress that the tax be removed from color sets and that the rate on black-and-white be reduced to 5 percent to eliminate the discrimination against our industry as compared to other home products. It is only because of the Government's need for revenue that we have not gone all the way at this time and asked for entire elimination of the tax, which is our fundamental position.

In the case of UHF, however, the question is whether it is important to the public to have a system of television that will assure room for future growth, community self-expression, educational television, and a fully competitive system. If Congress removes the tax from all-channel sets, it will be because these goals are important to the public. We believe they are important and that is the reason we urge removal of the tax from all-channel sets.

Before leaving the tax subject, I would like to comment on the remark made by one broadcasting representative before this committee on February 27. It was that the tax on VHF-only sets should be raised to 15 percent and the tax on all-channel sets reduced to 5 percent as a means of helping UHF. I doubt that this was put forward as a serious proposal, but for the record I must say that RETMA is strenuously opposed to it.

First, since it is wrong in principle to levy a selective excise tax on television sets, it is wrong to increase the rate of tax on any television set.

Secondly, if the purpose of the suggestion was to offset the revenue loss expected from the reduction of the tax on all-channel sets, it would not achieve that objective because the sale of VHF sets would decline sharply under such a heavy penalty tax.

Third, the public interest would not be served by a law which, in effect, penalized the manufacture of VHF sets in comparison with other household appliances. There may be areas in which VHF-only sets should be continued. The problem is how to encourage UHF, not to destroy VHF. If we want to encourage the use of rye bread, we should not go to length of putting poison in the white bread.

ALLOCATION PROBLEMS

RETMA filed a statement with the Federal Communications Commission last fall saying that in our opinion no one has proved that the TV allocation plan now existing under the Commission's sixth report and order is inadequate or defective. We repeat that view now. We think that a system of combined VHF-UHF broadcasting should be preserved. Twelve channels are not enough for a nationwide competitive system, and we doubt that sufficient additional VHF channels could be obtained from other services to assure a healthy system on an all-VHF basis. We strongly urge that the portions of the UHF spectrum presently allocated to television be preserved for television. It

is only in this way that the Nation can provide for the future growth of television, for essential local self-expression, and for educational television.

We do not say that the present plan is perfect. The 3 years of experience since its issuance should reveal many improvements that could be made. We urge that all reasonable and useful methods be employed, and all adjustments to the plan made, which would help achieve a healthy combined VHF-UHF television system. The tax relief measure should be enacted by Congress immediately. The FCC should explore all promising measures and take action as soon as possible.

We believe that the hearings being held by this committee are contributing much to the solution of this difficult problem and we hope very much that the committee will call upon RETMA if we can furnish any further information that might be helpful to the committee in its deliberations.

(The appendixes to Mr. Hoffman's statement, containing the tabulations referred to in his testimony, are as follows:)

UHF set statistics

A. FACTORY SALES

Period	UHF TV set sales	Total TV set sales	UHF as percent of total
3d quarter 1953	360,381	1,862,849	19.3
4th quarter 1953	401,602	1,747,101	28.1
1st quarter 1954	379,192	1,610,320	23.5
2d quarter 1954	263,705	1,151,612	22.9
3d quarter 1954	349,724	1,907,875	17.5
4th quarter 1954	478,859	2,644,771	18.1
1st quarter 1955	316,153	2,140,977	14.8
2d quarter 1955	151,142	1,175,766	12.9
3d quarter 1955	377,882	2,348,197	16.1
4th quarter 1955	330,251	2,073,122	15.9
January 1956	83,314	622,741	13.4

Compiled by RETMA statistical department.

B. FACTORY INVENTORY

Period	UHF TV set inventory	Total TV set inventory	UHF as percent of total
2d quarter 1953	23,135	693,490	3.3
3d quarter 1953	99,571	520,748	19.1
4th quarter 1953	147,542	465,104	31.7
1st quarter 1954	105,779	301,894	35.0
2d quarter 1954	141,101	548,319	25.7
3d quarter 1954	79,232	438,612	18.1
4th quarter 1954	59,518	407,241	14.6
1st quarter 1955	77,433	454,516	17.0
2d quarter 1955	150,735	919,291	16.4
3d quarter 1955	82,014	562,867	16.3
4th quarter 1955	65,588	425,700	15.4
January 1956	64,351	391,306	16.4

C. UHF TV SET INVENTORIES VERSUS SALES

Period	UHF inventory as percent of total	UHF sales as percent of total	Period	UHF inventory as percent of total	UHF sales as percent of total
3d quarter 1953	19.1	19.3	1st quarter 1955	17.0	14.8
4th quarter 1953	31.7	28.1	2d quarter 1955	16.4	12.9
1st quarter 1954	35.0	23.5	3d quarter 1955	16.3	16.1
2d quarter 1954	25.7	22.9	4th quarter 1955	15.4	15.9
3d quarter 1954	18.1	17.5	January 1956	16.4	13.4
4th quarter 1954	14.6	18.1			

Mr. Cox. Mr. Hoffman, as I understand it you feel that the elimination of the excise tax on all-channel sets would substantially serve to induce manufacturers to manufacture all-channel sets exclusively. Is that so?

Mr. HOFFMAN. Yes, sir.

Mr. Cox. However, if you were to take the excise tax off all television sets, that would still leave an incentive to the manufacturers, under the forces of competition, to manufacture VHF-only sets to the extent that the market demanded it.

Mr. HOFFMAN. I think that your pattern, Mr. Cox, would be pretty much what it is today. It would be established by demand.

Mr. Cox. In other words, if this excise-tax relief is to have any effect on the UHF-only problem, it should be done by taking, initially at least, the step of eliminating only the tax on all-channel sets.

Mr. HOFFMAN. Yes, sir, that is correct.

Mr. Cox. I think you pointed out that RETMA demonstrated to the FCC, and to people potentially interested in UHF broadcasting in the early days, that UHF could be an effective broadcast vehicle. Do you think that people who were going on the air on UHF in those days were induced to believe that it was going to be somewhat more effective competitively than it turned out to be?

Mr. HOFFMAN. I think, Mr. Cox, that I might speak as a manufacturer, if I may, on that score—

Mr. Cox. Yes.

Mr. HOFFMAN. I think that if you follow the history of television itself, you get perhaps the answer to your question. Television, from 1946 on through 1950, was an unprofitable pioneering job. I know personally that very few of the broadcasters in those particular periods up until 1950 made any money.

Then in 1950 the picture abruptly changed. The black figures started coming in across the board. So by 1952, when the freeze was lifted, many people felt that just getting a channel allocation was like hitting an oil well. I think that there was too much enthusiasm on everybody's part, and not enough analysis of the real problem of broadcasting.

I think that the manufacturers looked at this thing primarily, "Well, here is a big new market." You see, at that particular time with 108 stations, I believe, in 62 markets—if I am not mistaken—our market was limited. We are an aggressive industry. We are trying to serve the public, and we saw this big new market coming up. We have 36 members of our association that build sets, whereas we only have 6 members that build broadcasting equipment. So our enthusiasm was to serve this new market that came up. I don't think that the set-manufacturing division did much to encourage people to get into UHF broadcasting, other than a general idea that here was a big market to serve.

I think that the encouragement of people to get into this was predicated on a track record—not that I want to sound as if I follow the horses, but some of these terms come in pretty handy—the track record of television broadcasting up to that time. The previous 2 years had been very favorable. So they thought it would be a profitable venture. So everybody surged into it.

Mr. Cox. Wasn't there, in addition to the fact that it seemed that television broadcasting was becoming profitable, also explicit in the

sixth report the indication that this new UHF group of frequencies that were being made available were very shortly going to be fully competitive, so that an intermixed system of allocations would provide the people who were taking UHF allocations with a facility that could survive in the market?

Mr. HOFFMAN. I think, Mr. Cox, my comment on that would be that I think that the people—and I don't know exactly what you are driving at—but I think that the people in Washington, and specifically the Commission, were thinking in overall enthusiasm and not in a particular market. This varied by particular markets.

Mr. Cox. Let's get down to the specific situation. You suggested at the conclusion of your statement that you think that basically the sixth report and its allocation plan is sound?

Mr. HOFFMAN. We do.

Mr. Cox. And that the intermixing, or at least the joint use of both VHF and UHF channels, continues to be desirable? Can you suggest to the committee how the present intermixed allocations can be made to work if, in all of the major markets at least, there are VHF stations on the air which people can receive without the extra expense of buying an all-channel set, and if the networks—also impelled by economic considerations just like the manufacturers—have by and large chosen the VHF outlets for affiliation? Even if there are 3 or 4 UHF channels in such a market, how can anyone be induced to take them up and to go on the air and try to make it pay in the face of the experience to date?

Mr. HOFFMAN. I am speaking now from RETMA's viewpoint. We appointed a frequency allocation systems committee to study this particular thing—to get at the very problem that you are posing. It was felt that this problem is both technical and economic, and that our activities should primarily be directed at the technical phase of it rather than the economic phase of it.

From a technical phase, we ran into the dilemma that deintermixture and many of the other things that had been recommended were controversial within the association itself. We felt, also, that a good many propositions had been forwarded in desperation rather than based on sound engineering principles.

We offered RETMA's services at that time to evaluate any of these proposals, from a technical viewpoint, to see whether or not they would be useful—that is, to assist the Commission in the engineering phase of this problem. That offer still holds.

Mr. Cox. You would agree, wouldn't you, that at the present time, even with the development in UHF transmitters and receivers that has taken place since 1952, still the likelihood of an additional UHF station surviving, if it were foolhardy enough to go on the air in a V market, is very slight?

Mr. HOFFMAN. I wouldn't want to say that as a general statement, Mr. Cox. I think you make a mistake here in trying to get a general statement. It is a desirable thing, but not a very pertinent thing at times. That is very pertinent in a market like Los Angeles that has seven VHF channels. A UHF channel in that market surely would have a hard time getting going. There are 2½ million sets already out in the area.

However, in some of the markets that have not been served since 1946 or 1947, and some of the markets where there may be 1 or 2 sta-

tions and there is enough of a market to support a 3-station market, then I think the UHF station would have a very good chance of survival.

Mr. Cox. How about Pittsburgh, Pa., where, as I recall it, there is one V on the air and one U. There is another V allocated, but not yet granted, and the U station, we are informed, is having a difficult time and is in fact broadcasting only part time?

Mr. HOFFMAN. Frankly I am not familiar with that situation. I don't know the peculiar problems involved in that specific instance. But I think the problem of any broadcasting station is the problem of programing and advertising. If they have an economic problem it is probably involved in that. I think the problem in Pittsburgh, I am sure, is an economic problem rather than a technical problem.

Mr. Cox. Doesn't it perhaps start with technical difficulties in terms of coverage?

Mr. HOFFMAN. You see, what happened is that this whole problem has been sort of a cumulative problem. The freeze itself contributed to this problem. After all, we had 3 years of a freeze where we froze these 108 stations in 62 markets. Of course during that particular time, people were establishing their habits of viewing. A new station, whether it was VHF or UHF, that came on after that time had to change the habits of viewing of that particular part of the population. So the freeze itself that was imposed by FCC operated against UHF.

Then we come along and we finally put these channels on the air to develop greater coverage and a competitive system, and we suggested that we take the tax off of all-wave receivers so we could get distribution fast, and that was denied. So I think we have made constructive suggestions all the way along here to help this UHF problem, but there hasn't been very much attention paid to them. I think—to go back to your question—a new station going on the air is like a new business going into a community. If it is a grocery store and there are three grocery stores in that particular community and the other grocery stores have got the people going to them and they are doing a good job of servicing, and they have got all the groceries the people want and the prices are competitive, it is hard for the new grocery store to get started, whether it has got a red front or a white front.

Mr. Cox. I would like, if I may, to ask you now a few questions about the other phase of your activities as a broadcaster. You are the owner of a station that is allocated to Stockton; isn't that correct?

Mr. HOFFMAN. Yes, that was an idiosyncrasy of the frequency allocation.

Mr. Cox. It could serve there better than somewhere else?

Mr. HOFFMAN. Our transmitter is actually located on Mount Diablo which is 20 miles from San Francisco, and actually 30 miles from Stockton. However, it was located there because it serves a greater area of the population than would be true if it were to be located nearer Stockton, without any reduction of the service to Stockton there.

Mr. Cox. There are 3 VHF stations on the air in San Francisco and 1 U, is that correct?

Mr. HOFFMAN. Yes, sir, that is correct.

Mr. Cox. Are there any other stations on the air in Stockton?

Mr. HOFFMAN. There was one U and it went off the air.

Mr. COX. Your station is a VHF station?

Mr. HOFFMAN. Yes, sir.

Mr. COX. It is the only V allocated to Stockton?

Mr. HOFFMAN. Yes, sir. However, there are two VHF stations in Sacramento, which is close by Stockton, and they also serve Stockton.

Mr. COX. Do the signals of the San Francisco stations serve Stockton?

Mr. HOFFMAN. Yes, sir.

Mr. COX. Do you have an affiliation with a network?

Mr. HOFFMAN. No, sir.

Mr. COX. The three V stations in San Francisco are each affiliated with a network?

Mr. HOFFMAN. There is 1 company-owned station and 2 affiliates, yes, sir.

Mr. COX. Do you know whether or not there are network programs made available to those stations which are not used by the stations?

Mr. HOFFMAN. I believe there are.

Mr. COX. Have you ever tried to get the right—

Mr. HOFFMAN. We have asked for the right to take those programs. We have also asked for the right for second runs of the shows that the networks have, and both of them have been denied.

Mr. COX. Both have been denied?

Mr. HOFFMAN. Yes, sir.

Mr. COX. Do you find that, operating as an independent, you have a problem in obtaining desirable programing because of public preference for network programing?

Mr. HOFFMAN. I think that the problem is not necessarily whether it is network programing or not. It is quality of programing, and of course appeal to public interest. Of course I can talk as an independent station which has put a substantial amount of money in developing a station. It is sort of a cycle. A basic problem of any business is to take in more than you put out. To take in more than you put out, you have got to get advertising dollars. That is the basic fundamental concept of our broadcasting—it is supported by advertisers, the same as our newspapers are.

For the advertisers to support your station, you have to have an audience, and to get an audience, you have to have programs. The amount of the audience is determined by ratings. Many people think that the ratings are inaccurate, but nevertheless that is the yardstick. If you don't get the ratings, you don't get the advertisers' dollars, so you don't take in more than you put out.

So the problem becomes a very serious problem as far as programing is concerned. Of course, also, at the present time there is a variation from 6 to 13 hours a day of network programing being offered the affiliates. So an independent station has got to develop the programing to offset that, both in quality and quantity.

Mr. COX. Do you find that an independent station even has difficulty getting the right to show the product of independent film producers because of the fact that they are interested in selling this particular film series in as many markets as possible, and they may find, therefore, that the network is the best potential customer for that?

Mr. HOFFMAN. I think that that again is an economic problem as far as the film producer is concerned. He has got so much money tied up in his films, and he has to get X number of dollars out. If he

can go to a network and sell that film, it is a much easier sale, and it is a lower cost sale and probably he gets more out of it.

If he has to go out and pick off the independent stations, or get into a time spot of a network affiliate that is not now being occupied by the network, and do it on a patchwork basis, it is more difficult. So as a consequence, the network indirectly affects the independent station as far as the independent film producer is concerned.

Mr. Cox. Because it in effect competes with the independent station for the purchase—

Mr. HOFFMAN. That is right; again it is the economic problem.

Mr. Cox. Have the networks, in declining to permit you to use either programs that have not been used by their local affiliates or to permit you to run them at a later date, given any explanation for this? Or has it just been a bare refusal?

Mr. HOFFMAN. No; it has been a bare refusal.

Mr. Cox. Isn't it true that the Federal Communications Commission, a year or so ago, changed its chain broadcasting regulations as far as the rights to first refusal are concerned, to limit them to refusal as far as another station operating in the same community was concerned, whereas previously they had applied to stations in the same area?

Mr. HOFFMAN. I think that is true. We haven't pressed the point. I must go on record this way: I think I was a little more knowledgeable when I went into this business than some of the people who went in the UHF business. At least I knew some of the problems I was going to face. However, it turned out in some cases to have cost me more money than I figured they would cost originally.

Mr. Cox. Thank you, Mr. Hoffman.

Senator THURMOND (presiding). Mr. Hoffman, I want to thank you for your contribution to the committee.

Mr. HOFFMAN. Thank you, Senator.

Senator THURMOND. Our next witness is Mr. Clifford F. Rothery. Is he here?

Come around, Mr. Rothery. Proceed with your statement.

STATEMENT OF CLIFFORD F. ROTHERY, INTERNATIONAL PRESIDENT, NATIONAL ASSOCIATION OF BROADCAST EMPLOYEES AND TECHNICIANS, AFL-CIO-CCL

Mr. ROTHERY. My name is Clifford F. Rothery, of San Francisco, Calif. I appear before your committee in my capacity as international president of the National Association of Broadcast Employees and Technicians, AFL-CIO-CCL, commonly referred to as NABET. We are the largest trade union operating exclusively in the radio and television field. We hold collective bargaining agreements with two of the three major American networks and with independent radio and TV stations from coast to coast covering radio and TV engineers, technicians, and other operating personnel. We have a very keen interest in these proceedings and their outcome.

First let me say this: While I represent a labor organization, I do not come here as a proponent of any special labor interest, but rather on behalf of an organization that feels deeply the responsibility that all of us have who are directly engaged in radio and TV activities. Our first responsibility is to the public, whether we function in the industry as labor or management, or, I submit, as an arm of Govern-

ment, since the Federal Communications Act binds the FCC to serve the public interest no less than it does the station licensee or its personnel.

I think the principal question today is just how is the public interest being served by the present policies of the FCC? To what extent is the FCC itself being governed by the standard which is supposed to govern the granting of licenses, namely, the "public interest, convenience, or necessity"? I think these are pertinent questions on the record.

We in NABET—the men and women who bring radio and TV to the public—have viewed with growing dismay the many FCC deviations from the public interest standard set up under the Federal Communications Act. We have ourselves felt the effect of policies which we are convinced are the result of a fundamental confusion as to the end purpose of the Federal Communications Act so far as it bears on the use of the airwaves.

I think the FCC has lost sight of its basic responsibility to promote a free and competitive national system of radio and television devoted to high standards of service and meeting the local community needs of the people. For how else are we to explain the steady trend to monopoly in radio and television, the deterioration of the content of radio and television broadcasting, and the near collapse of UHF?

What explanation is there for the widespread speculation in radio and TV properties which has made this industry such a lush field of operation for quick-profit takers, if it is not that the FCC has misinterpreted its function? And how else are we to explain the fact that in the United States today there aren't more than 20 educational TV stations on the air leaving the Nation to the mercies of the national advertisers to determine what, if any, forms of entertainment the 35 million owners of television sets shall enjoy?

And how, for example, does FCC discharge its duty to the public when in the vital area of civilian radio and national defense it permits an industry guided principally by money considerations to determine, for all practical purposes, whether or not civilian radio shall be employed at all? I am referring, of course, to FCC policies respecting the use of Conelrad, about which I shall have more to say at a later point.

I think, gentlemen, that the principal reason for the sorry state in which television finds itself today is the fact that the public interest has been tossed overboard and the private desires of individual businessmen have been made paramount. They have literally been given a field day.

Consider the effect of FCC policies concerning the assignment of radio or TV station licenses by the original licensees. There are presently few restrictions on the sale and resale of the station license or franchise, which, to begin with, is granted without charge by the Government to the holder on the understanding that the public interest, convenience, and necessity will be served. As a result, there is a very active traffic in FCC licenses after the original grants, and it is a common experience for stations to sell at several times the original investment in station physical assets. The profits are, of course, attributable to the value of the FCC license. The "business goodwill" thus capitalized is entirely due to the privilege granted the licensee to do business on the airwaves—a free grant. And this capitalization

of the FCC license by private businessmen is ordinarily accomplished very shortly after the original license is granted—but, of course, not less than 6 months after, to avoid the impact of the normal income-tax rates and have the advantage, instead, of the lesser capital-gains tax.

Thus any day you can pick up the trade papers and see new notices of station transfers approved by the FCC, at prices substantially in excess of original investment, and usually after a holding period that would be uncommonly short in other fields of business enterprise, but which has come to characterize the radio and TV business. For example, in my own home city, San Francisco, TV station KPIX, a Westinghouse operation, was reputedly purchased for \$7½ million from the original licensee, who had about a million and a half invested, and who had held the license for hardly more than 4 years. The FCC approved this sale.

Within the past several weeks the trade papers report the sales of WIRI-TV in Plattsburgh, N. Y., for \$500,000 plus; WRDW and WRDW-TV in Augusta, Ga., to South Eastern Newspapers for \$1 million plus; WGTH-TV in Hartford, Conn., for \$650,000, and so on and so forth. These transfers are garden-variety transactions. I haven't run down the figures to determine what profits have been taken on these sales, but I know sales like these ordinarily represent substantial profits to the original licensees, and that FCC policies encourage the traffic.

It is a significant fact, I think, that in the past 5 years at least 100 TV stations have changed hands, having been sold once or more than once, with FCC approval. This represents 20 to 25 percent of the total number of TV stations now operating, a surprising rate of station ownership turnover—but not surprising when you consider the remarkable profits to be made in the sale and purchase of TV stations, particularly under present conditions of near-monopoly of the airwaves by a limited number of VHF channel licensees. Plainly the FCC's present policy respecting UHF, which discourages active competition with VHF, assures high capital gains to the fortunate holders of VHF licenses who decide to sell out fast, or high returns to those who decide to stay in.

Let me cite to you what the industry thinks in this regard, quoting from a broker in the business who spoke before the California Radio-TV Broadcasters Association recently. He said:

Pick any investment stock on today's market that will compare even remotely with radio station or television station return and you've found a bonanza. The only investment sources outside radio and television where you may get a higher return are in oil, minerals, or lumber, where the speculation is infinitely greater.

He then goes on to compare the advantages of operating radio-TV properties at 25 to 30 percent return on capital with the advantages of selling them to take the capital gain at lower tax rates.

It is elementary economics that a high demand for a necessary commodity in limited supply bids up the price and conduces to monopoly. This in a nutshell is the present situation in television, and it is directly due to FCC policies, which place no curb on the process of purchase and sale of station licenses and pyramiding capital investments.

But the effects on the future of television are serious. One effect, plainly, is to price out of the market the local enterpriser with limited

means, the community-minded citizen who wishes to operate a community-based station. Where he might have the means to build and operate a station starting with the original license, he cannot afford to buy from a licensee in competition with the big money available from large group interests operating from outside. Multiple ownerships and newspaper ownerships are encouraged by the FCC, which allows a single company or individual to own up to seven TV stations. Consequently, the number of independent owners has steadily contracted, pushing out local interests in favor of the big-moneyed groups. And this process toward concentration is continuing, and at the expense of hometown television which, I submit, is one of the objects of Federal policy under the Communications Act.

Another necessary effect of this FCC policy allowing wide-open trafficking in television licenses is the lowering of licensee qualifications. At the time of the original grant the FCC presumably selects the best suited among the competing applicants for the license, and the size of an applicant's pocketbook is not the principal consideration—but plainly it becomes so when the license is sold by the first holder, for then price becomes the criterion, and the market place and not the FCC ultimately decides who is to hold the license.

A third effect of this process of quick and profitable sales of television licenses is to siphon off future earnings in the form of present capital gains. The seller realizes an immediate windfall, and is taxed at capital gains rates only. The purchaser, on the other hand, starts out with a considerable initial investment, on which he expects to earn a return. To do so, he may have to increase his advertising rates, which ultimately reflect in higher prices to the consumer, or cut his operating costs, which will reflect in heavier burdens on his employees, as members of my union can testify. Or he may lower the quality of his service. In other words, FCC policy here encourages tax avoidance with loss in tax revenues, a more costly or inferior product to the public, and reduced employment or underpaid employees in the industry.

Another effect is the increased control, though indirect, of the airways by national advertisers. This follows, first, from the fact of multiple ownership, and second, from the ability of big advertisers to pay the kind of rates which keep high-cost stations operating. As a result, community control is diminished, local advertising is subordinated, and the direct service product—namely, the communication and entertainment presumably to be furnished—becomes debased by the station owner's total dependence on the big commercial sponsor.

And just in case anyone has any illusions about the devotion of big advertisers to culture and high-level entertainment, permit me to quote, without naming, the director of a big New York advertising agency. The advertising director was speaking of color, and is quoted in the trade press as follows:

Color TV will be the biggest advertising medium ever. The worst program looks good in color. For promotion and public relations, color is the best thing that has happened * * *.

Now I ask you! But that's the way they think, and this is not just an augury of how bad our programs will be with color, but an indication of how bad they already are with black and white.

UHF is clearly affected by this FCC policy which allows station costs to be pyramided by the sale and resale of station licenses. And

perhaps this FCC policy is one of the keys to the whole sad UHF situation. Obviously there is every incentive on the part of VHF holders to limit competition, particularly since this assures that the market value of their properties will be enhanced several times over. Here are rich pickings, gentlemen, so why let UHF interfere?

And while I am on the subject of UHF, permit me to point out that what the profit-seeking industry is doing looks very much like what was done to FM in radio. The radio industry killed FM. And the operators in television will, if allowed, kill UHF in the same way. And the public will again be the loser.

You remember FM—frequency modulation? It promised high-fidelity broadcasting and a new world of enjoyment to the public. AM license-holders rushed, and got, the FM licenses; for a short while they offered separate programing, and then shifted over to complete duplication on FM of the AM programs. The result was that FM went by the boards, since from the standpoint of the public there was no sense to buying FM sets when they could get the same programs on their AM sets. Today, the great bulk of some 500 FM licenses outstanding are held by AM licensees—and very few are in actual service. Instead, FM licensees are in many cases using their high-quality FM signals to feed programs from their AM studios to their transmitters, thus cutting out the cost of suitable transmission lines. This final abasement and destruction of FM must be laid squarely on the doorstep of the FCC, which failed to save FM from the profit seekers in the industry.

We are rapidly approaching a like situation with UHF. The present ill-conceived pattern is due at least to FCC's lack of foresight, if not to an excessive tenderness for monopoly-minded operators in VHF. It is clear that television's future lies in the UHF portion of the spectrum, and it is equally clear that congressional action may be necessary to get FCC to apply policies, such as deintermixture, to save UHF. Ultimately UHF must prevail throughout, in order to bring more television stations into the communities, and the right policies will encourage the conversion of sets to receive UHF.

Educational TV is fated to remain an unrealized dream unless action is taken to implement the full intent of national policy under the Federal Communications Act. It is a striking fact, I think, that although 258 TV channel assignments have been reserved for non-commercial educational use, barely a handful of stations have been able to take to the air, and this although the private sector of the television industry has been able to generate over half a billion dollars of revenue during this past year, together with radio having become the wealthiest advertising medium in the country. Over a billion dollars a year are now being spent to reach and sell the radio and TV audience. But very little of this goes for high-quality programing. A high proportion of radio-TV time is straight commercials, and too high a proportion is taken up with second-rate motion-picture films. In fact, television is a principal consumer of old pictures, and the sale of pre-1948 films for TV use is estimated to amount to \$50 million this year. Yet, as one motion picture magnate has admitted, the public wouldn't pay at the box office to see the very pictures which are unloaded on it in the TV living rooms of the Nation.

All of which points up the deficiency in high-level programing, the failure of the industry, and the duty of the FCC to find alternatives

through effective promotion of educational TV. Either the industry must be made to pay for educational TV, or Government must directly subsidize it, to bring to the public the rich possibilities of television. And, certainly, the FCC should emphatically reject any suggestion from private industry that educational channels not yet taken up be made available for commercial use.

Of course, educational TV and the promotion of local television go together, and it appears to be the policy of FCC to favor the reverse. The dilution of hometown control is manifested also in the case of the daytime broadcasters, who for years have sought to stabilize their broadcasting day on a basis that would accommodate local needs instead of varying with the sun. The plea of the daytime broadcasters would assure stability of operations, certainly something to be desired in any industry which is to be genuinely competitive. But their pleas have fallen on deaf ears. The FCC continues to ignore the local need for local services, with the result that more distant stations of sufficient power and wealth continue to be favored, once again pointing up the submergence of local expression by absentee television ownership.

The sensitivity of the FCC to the industry's financial calculations can have dangerous consequences, and I suggest that this committee might well inquire into how far the industry may be served at the risk of national defense. I have here specific reference to the question of CONELRAD, which is a radio communication system devised to be used in time of enemy attack and which depends on the cooperation of private radio-station owners. This calls for manually operated transmitters, since manual adjustments must be made to change the station's frequency as required for CONELRAD. The necessary adjustments cannot be made in radio stations which are telemetered, that is to say, which operate their transmitters by remote control.

Consequently, when a radio station is given authority to operate by telemetering, it just drops out of CONELRAD. The more stations that are allowed to telemeter, the less effective CONELRAD becomes, since the whole point of CONELRAD is to confuse enemy aircraft attempting to home in on some station's signal. A multiplicity of signal points through CONELRAD would render this difficult, if not impossible.

Telemetering, also known as remote control or automation, is a cheaper form of operation than manual operation of transmitters. Hence, the industry would like to have it. This was originally permitted for small stations (10 kilowatts, nondirectional), with the result that a large number of small stations dropped out of CONELRAD. Now the larger stations hope to get FCC authority to do the same. If they get it, the result will be the practical scrapping of CONELRAD, and once again the profit motive will have been placed above public need.

Unfortunately the FCC's whole tendency is to allow precisely what this profit-oriented industry wants. It has now authorized test telemetering of a 50-kilowatt directional radio station under the financial sponsorship of NARTB, the industry's trade association. The purpose of the test is to determine the engineering feasibility of remote control of transmitters in large stations, about which there is, anyway, little question; the real question is what will happen to CONEL-

RAD when and if FCC submits to industry pressure for universal telemetering.

NARTB has already proposed that FCC amend its rules to allow telemetering in 50-kilowatt directional stations, recalling—and I quote from the industry's magazine *Broadcasting-Telecasting* for February 20—that—

the Commission stated the most important consideration was whether the revision in question would result in any degradation of the Commission's technical standards.

Perhaps this is the technical consideration which, also, it so happens, squares with the industry's financial considerations—but what of the consideration of national defense? Hasn't the licensee assumed some obligation to the general public and the Government when he was granted an FCC license, and isn't he under a duty to carry out this obligation? Or is he to be permitted to take a "calculated risk" with the Nation's safety by demanning his transmitter? It is, regrettably, not too hard to understand a station licensee taking such a "calculated risk," but it is indeed hard to understand that the FCC should allow him to do so.

Of course, it must be acknowledged that Government can pay for CONELRAD participation, which, in fact, it is doing today in some cases. But it is then pertinent to inquire why Government should subsidize this rich industry's participation in national defense, when its very riches are the direct result of a Government grant of the privilege to do business on the air waves.

Finally, I would like to ask this committee to consider how far the FCC carries out the public purposes of the Federal Communications Act in still another area in which it has, it would seem, recently undertaken to function. I have in mind the recent involvement of the FCC in labor controversies, which I had hitherto supposed to be exclusively within the province of other agencies of Government and subject to other laws. My union has, on occasion, been compelled to take strike action against radio or television station operators in pursuit of lawful collective-bargaining objectives. Not long ago, in two such strike situations, the FCC responded to claims of "sabotage" leveled against NABET members by the strike-bound employers. In one of these situations the charges were ultimately dismissed, but in another an FCC examiner, by some peculiar reading of the Communications Act, succeeded in equating a lawful work stoppage with "willful damage of radio apparatus" under the act.

It is not my intention, of course, to appeal the FCC examiner's decision before your committee, but I do consider that this committee should be concerned when the FCC enters the labor-management relations field, since under the law it is confined to regulation of communications. Or does regulation of communications carry with it the right to regulate labor-management relations? If the FCC can justify this on the ground of its right to license radio operators, it will be the only regulatory agency which, by such an expedient, injects itself into labor disputes, and a matter of great interest to other labor organizations functioning in industries where technical personnel are licensed.

But of course what is really important about FCC's intervention in labor-management disputes is the further evidence it offers of the Commission's undue sensitivity to the requirements of the business-

men in the industry, regardless of effect on other areas of public interest, whether it be national defense or public policy respecting labor-management relations. And I submit that perhaps Congress needs to redefine, in sharp terms, the purposes of the Communications Act and the function of the FCC to protect the public interest in monopoly-free radio-television and in the quality product, regardless of the profit seekers who presently seek to concentrate control of the airwaves in their own hands.

Thank you for the opportunity to express these views before your committee. If there is any way in which NABET can be of assistance in your further inquiries, we shall be only too happy to cooperate.

SENATOR THURMOND. Would you please answer a few questions?

MR. ROTHERY. Certainly.

MR. COX. Mr. Rothery, in this matter of the assignment of station licenses, do I understand that it is your position that the FCC has approved the transfer of licenses from the original licensee without applying the same standards and safeguards that are applied in the initial comparative hearing where they are selected among several applicants?

MR. ROTHERY. I think so. It would be difficult to apply the same standards to a competitive group as to one person.

MR. COX. In other words, where a licensee seeks approval of a transfer, he comes in with a proposed transaction which has been concluded satisfactorily between himself and the prospective purchaser and simply asks the FCC to approve this, without at that time in any way opening up for general consideration the question of whether someone else would be better qualified to provide service.

MR. ROTHERY. That question never enters.

MR. COX. Would this be possible: As I understand it, in a comparative hearing the FCC looks to the question of whether the applicant has local residents in its organization, to the question of integration of ownership and management, to the civic record of the people connected with the applicant, and decides, on the basis of the evidence, which of these applicants is best qualified. Having gotten the license, can that license then be transferred to someone who meets none of those standards, if the FCC simply finds that, at a minimum, the proposed transferee is technically and financially qualified?

MR. ROTHERY. Technically and financially, some minimum requirements as to citizenship—the very minimum of requirements.

MR. COX. Have there been, to your knowledge, any significant number of cases in which such proposed transfers have been refused by the FCC?

MR. ROTHERY. Very few have been refused.

MR. COX. Do I gather from what you say that a good many of these sales have been made to multiple owners who are gradually accumulating television holdings in various parts of the country?

MR. ROTHERY. Yes, because of the price involved, mainly.

MR. COX. That is, they are the people most likely to be able to come up with the largest offer? Does your organization have any concrete proposal to make as to what should be done about this? That is, is it your view that it requires legislation, or that it simply requires a tightening up of FCC practices?

MR. ROTHERY. I think the FCC practices under its rules could do so. However, they may be overruled by the courts. Many things

enter the mind—high taxes, a transfer tax upon such sales, possibly the use of such money to support educational TV, which is a need.

In many ways—there have been regulatory agencies in States, for instance, that have set limits upon the price of certain licenses, such as the license of a bar or saloon, where there is trafficking in such licenses because of their limited number. In southern California they have stopped it by setting a top price that can be obtained for a license.

Mr. COX. I think at one point you quoted a business broker who discussed, I think you said, a rate of return of something like 25 to 30 percent on capital in television operations. That wouldn't be general, would it—a rate that high?

Mr. ROTHERY. It wouldn't be difficult to say that it was general. Dropping out the UHF stations, there are various instances where I would say it would be low on a capital investment.

Mr. COX. Exclusive of the UHF stations?

Mr. ROTHERY. Exclusive of the UHF stations.

Mr. COX. Only at VHF?

Mr. ROTHERY. Only VHF.

Mr. COX. Do I gather from what you say, that you feel that, under the impact of present policies of advertisers, perhaps educational television is the only real possibility that remains for a quality type of programing on television?

Mr. ROTHERY. No, I don't say a quality type. I say the main purpose of television as an educational, informational medium is better served when it is not controlled by advertisers.

Mr. COX. Wouldn't you agree that the networks and some stations independently, with the support of advertisers, have provided, certainly in many instances, a high degree of programing quality for the public?

Mr. ROTHERY. I say you could go over a broadcast day and select programs out of it that are outstandingly cultural, informational, educational, or entertaining. But in general, taking the broadcast day, I think if a person sat down in front of a television receiver and was forced to listen to everything that went on it for any considerable length of time, he would eventually wind up in a nuthouse.

Mr. COX. In other words, there are high spots, but you feel the general average of performance—

Mr. ROTHERY. The high spots are very far between.

Mr. COX. You referred to the matter of daytime broadcasters in radio and their efforts to get fixed hours for their operations. Isn't it true that if you permit them to operate outside this shifting time period, which is fixed by sunrise and sunset, that you do develop an interference factor with distant stations broadcasting on the same channel?

Mr. ROTHERY. There is an area between stations on the same frequency which would have interference.

Mr. COX. Isn't there a chance that that might result in a substantial reduction of service in that area of interference?

Mr. ROTHERY. No. I think, technically, the problem can be solved by directional rays so as to minimize the interference, and, with the economic feasibility of an extended-day operation, the Commission rules would be served.

Mr. Cox. That is primarily the problem of the daytime broadcaster, isn't it, that he wants to be able to sell advertising and provide programing on a steady basis, rather than on one that ends at odd times in the afternoon?

Mr. ROTHERY. Yes. His day varies all around. His employment goes from sunup until sundown, which is several hours different. And, naturally, what I am thinking of is that the good part of the year when you can sell radio time is during the winter. In the summertime, of course, which is his longest day, is what you might call sustaining time.

Mr. Cox. People aren't in the house?

Mr. ROTHERY. No.

Mr. Cox. With respect to conelrad, that, as I gather it, is a strictly voluntary program, isn't it?

Mr. ROTHERY. Strictly voluntary.

Mr. Cox. This telemetering that you discuss, I gather, eliminates at least one man, or is it more, from attendance on the transmitter?

Mr. ROTHERY. It eliminates complete human attendance at the transmitter, except in the case of emergencies.

Mr. Cox. Where you don't have telemetering—where it is manned—how many employees are concerned?

Mr. ROTHERY. One—one at a time.

Mr. Cox. That may mean two shifts?

Mr. ROTHERY. Depending upon the broadcast day—two shifts normally.

Mr. Cox. If the station is not on conelrad because it doesn't have a manned transmitter and can't make these manual adjustments, is it, under the program, supposed then to go off the air?

Mr. ROTHERY. It goes off the air.

Mr. Cox. Then there won't be any danger that it will serve as a beacon to possible enemy attack forces?

Mr. ROTHERY. There is only this about it. The transmitter is then controlled by a person who is busily engaged in a commercial activity in the studio—an announcer who may be playing records and doing considerable other work around the studio. He is also, in addition to listening to what he is putting on the air, supposed to monitor. This is a confusing thing, and you can't monitor very well. The usual practice would be to turn the monitor down to a point where he could hear it under all conditions, but there may come the condition where he would not hear it.

Mr. Cox. This monitor is the channel through which he would be advised of the emergency?

Mr. ROTHERY. This would be the conelrad key station that he listens to; the other station who is also broadcasting a commercial program.

Mr. Cox. But they superimpose some signal, do they?

Mr. ROTHERY. They superimpose a signal on that, upon the receipt of which all stations not on conelrad are supposed to get off the air.

Mr. Cox. It is your feeling that the personnel manning the transmitter, if it is manned, would be more alert to that than perhaps the busily engaged individual at the studio itself?

Mr. ROTHERY. Yes. They constantly run tests to keep them on the alert. Several times a week a conelrad test is put into effect just to see if they are on their feet.

Mr. Cox. Has there been any demonstrable difference, or aren't these telemetering stations included in those tests if they simply drop out?

Mr. ROTHERY. No, there is no signal on the air for them to hear.

Mr. Cox. They are no longer a part of the system, then?

Mr. ROTHERY. No, they are no longer a part.

Mr. Cox. Is it my understanding, also, that having changed their frequency, the stations that are on conelrad are then supposed to broadcast instructions of a civil-defense nature and things of that sort?

Mr. ROTHERY. Yes, sir.

Mr. Cox. So that this station which has dropped out of conelrad because it doesn't man its transmitter would not be able, at least, to take part in that affirmative part of the program.

Mr. ROTHERY. When you say "broadcast," the entire conelrad unit in an area becomes a single broadcasting station at that point, no one station broadcasting all the time. But by mechanical means, a station may be on the air a momentary portion of the time, and then it goes to the other stations around.

The central conelrad control point then broadcasts. A person listening at home on this frequency hears the complete message, but no station will deliver more than a word or so of it.

Mr. Cox. As to a station that has gone off conelrad, if there remains no station in a community which is still a part of the system, is there some possibility that the citizens of that area will be without information which they otherwise—

Mr. ROTHERY. They would have to get it from some other area. If they were too far away for signals, they wouldn't get it.

Mr. Cox. With respect to this matter of labor disputes in which you feel the FCC has injected itself, that was not in the area of the actual negotiations or anything of that sort between your union and the employer?

Mr. ROTHERY. No.

Mr. Cox. These sabotage charges you referred to in two instances: were those brought during or after the labor dispute had ended?

Mr. ROTHERY. After it had started—before it had ended.

Mr. Cox. During the progress of the strike?

Mr. ROTHERY. During the progress of the strike.

Mr. Cox. Do I understand that you are appealing the one case in which the charge was made?

Mr. ROTHERY. Yes.

Mr. Cox. Are all of your members licensed by the FCC, or do you include also nontechnical personnel of the station?

Mr. ROTHERY. We include nontechnical, but not all technicians are licensed.

Mr. Cox. Just the—

Mr. ROTHERY. Transmitter operators.

Mr. Cox. Only the transmitter operators?

Mr. ROTHERY. That is all that is required by the law.

Mr. Cox. That is, your cameramen and personnel in the studio are not licensed?

Mr. ROTHERY. That is not required.

Senator THURMOND. Mr. Rothery, I wish to thank you for your statement here and for your coming.

There is a statement that has been offered by Mr. Mortimer W. Loewi, vice president of Gerico Investment Co. That will be admitted into the record.

STATEMENT OF MORTIMER W. LOEWI, VICE PRESIDENT, GERICO INVESTMENT CO.

Mr. LOEWI. My name is Mortimer W. Loewi. I am a director and vice president of Gerico Investment Co., permittee of station WITV, operating on UHF channel 17, Fort Lauderdale, Fla. I have heretofore testified before the Potter subcommittee on the problems confronting UHF operators.

My background in television dates back about 22 years, at which time I jointly with Dr. Allen B. Du Mont organized Allen B. Du Mont Laboratories, Inc. For a number of years, until the end of 1951, I was director of the Du Mont Television Network. I have thus had experience in the pioneering of both VHF and UHF.

In its sixth report in April 1952, despite contrary recommendations by Du Mont, the Commission decided to intermix VHF and UHF channels in the same major markets. At that time the Commission allocated 3 commercial VHF channels and 2 commercial UHF channels to Miami, Fla. It allocated 2 UHF channels to Fort Lauderdale, a rapidly growing city approximately 25 miles north of Miami. These allocations were made on the assumption, since proved false, that VHF and UHF stations could coexist side by side in the same markets, and that by intermixing the two types of frequencies, UHF would become an integral part of a single nationwide competitive system.

Gerico Investment Co. applied for and obtained a grant of channel 17 in Fort Lauderdale in 1952. We constructed a 752-foot tower as the so-called Miami "antenna farm" and went on the air in November 1953. We had our difficulties. By reason of the prefreeze headstart of station WTVJ, operating on VHF channel 4 in Miami, almost no sets in the Miami-Fort Lauderdale area (at the time we went on the air) were capable of picking up UHF signals. We were confronted with a terrific conversion problem—getting existing set owners to add UHF converters and getting new-set buyers to spend extra money (\$30 to \$50) to purchase all-channel receivers.

VHF station WTVJ (channel 4), at the time we went on the air, took its choice of the programs of all four networks (CBS, NBC, ABC, and Du Mont). There were inadequate cable facilities to permit the receipt and transmission of two network shows simultaneously in the Miami area.

However, with only 1 UHF station in operation (the other 2 being tied up in hearing), the people in the area were hungry for a wider choice of programs. Additional cable facilities were installed. With only 3 stations on the air, 2 on UHF, the people in the area soon realized that they had only "half a set" unless they could also pick up UHF programs. The VHF station (WTVJ), as a basic affiliate of CBS, carried the programs of that network. It also had first call on the programs of ABC, but since it could not carry ABC programs at the same time it was carrying CBS shows, we obtained a secondary affiliation with ABC. The other UHF station in the area (WGBS-TV), operated by Storer Broadcasting Co. on channel 23 since December of 1954, had first call on the programs of NBC. Thus, with

NBC and numerous ABC programs available only on UHF, we have made tremendous strides in the past year toward "licking" the UHF-VHF problem. By November of 1955, according to figures released by the Florida Power & Light Co., 90.6 percent of the 300,000 sets in the Miami-Fort Lauderdale area were able to pick up UHF programs. The people in that area, in order to pick up UHF signals, have expended an extra \$10 million on UHF converters, bow-tie antennas, and the price differential between VHF-only and all-channel receivers.

Station WITV is now operating with 536 kilowatts of power, directionalized north and south, with an antenna 762 feet above mean sea level. WGBS-TV is operating with an effective radiated power of 186 kilowatts and an antenna 943 feet above mean sea level. Because of the flat terrain and uniform year-round foliage in the area, the UHF stations are providing coverage comparable to that obtainable on high-band VHF (channels 7-13). Because of manmade noise, which has a lesser effect on UHF than on VHF, and particularly because of interference from operations in Habana, Cuba, on two of the same channels assigned to Miami, the UHF stations are providing at least as good a picture in the area as the VHF operation on channel 4, a point which I cannot emphasize too strongly to this committee.

Thus by the end of 1955 the UHF stations in Miami-Fort Lauderdale, facing only one VHF competitor, were doing an excellent job. The area was approaching all-channel saturation. Station WITV, with capital investment and operating losses in excess of \$1 million, reached the break-even point.

All this was changed by the Commission's action of January 20, 1956, granting channel 7 to Biscayne Television Corp., and its refusal to stay the channel 10 grant in Miami until deintermixture problems now under investigation by the Commission have been resolved.

The grant to Biscayne, a corporation controlled by a former president of NBC, and by two large newspaper chains, has created an almost unbelievable monopolistic situation. These 2 newspaper chains publish the only 2 metropolitan dailies in Miami; they own the 2 most powerful radio stations in the area (stations WQAM and WIOD); they now have channel 7 in Miami, along with numerous other television interests elsewhere. Against such a combine, an independent UHF operation is at a hopeless disadvantage. Experience has shown that UHF stations have not been able to survive, except at a financial loss, in markets served by 2 or more VHF stations affiliated with the 2 principal networks (CBS and NBC). With the January 20 grant to Biscayne, Storer's UHF station (WGBS-TV) will lose its NBC affiliation, and when channel 10 is granted, WITV will be deprived of such ABC programs as have not in the meantime gone to the VHF stations on channels 4 and 7.

Experience has further shown that when the programs of the two leading networks (CBS and NBC), along with high-rated programs of ABC, are obtainable on VHF, the UHF stations lose their audience. With the loss of audience they lose their national and local spot business, and with the loss of revenues they can no longer operate in the public interest. With most of the network programs on VHF, the public has no particular incentive to pay another \$30 to \$50 for all-channel sets or UHF converters. There is no reason to keep existing UHF converters in repair.

The market soon becomes flooded with new VHF-only sets and conversion problems (which we have almost licked during the past

2 years) start all over again, and with 3 VHF stations in operation the UHF stations no longer have the good programs to induce the public to reconvert to all-channel receivers.

After heavy initial capital expenditures and substantial operating losses during the early conversion period, and seeing what was happening in other markets upon the advent of a second or third VHF station, we foresaw what was coming in Miami if the Commission adhered to its 1952 decision to grant three VHF stations in that area. Accordingly, on April 14, 1955, within 15 days after the Commission decided to hold hearings on certain deintermixture proposals, my company joined Storer Broadcasting Co. in petitioning the Commission to deintermix Miami-Fort Lauderdale. Our proposal as amended included the 6 principal cities of Florida and 2 cities in Georgia.

Our joint proposal, as we pointed out to the Commission, had certain definite advantages.

At the present time, cities like Orlando, Jacksonville, Tampa-St. Petersburg, and Savannah, are limited, as a practical matter, to 2 equally competitive television services, an insufficient number to take care of the 3 national networks.

Under our proposal, by removing channels 7 and 10 from Miami, each of these cities—Orlando, Jacksonville, Tampa-St. Petersburg, and Savannah—would be assured a third equally competitive facility; Brunswick, Ga., would obtain a second; Miami-Fort Lauderdale would still have 3 stations—1 VHF and 2 UHF—with room for additional UHF stations now and in the years ahead.

In contending that Miami-Fort Lauderdale should become a predominantly UHF market, limited to a single VHF channel, we pointed out the following advantages:

(1) By reason of WITV's and WGBS's pioneering, Miami-Fort Lauderdale is rapidly being transformed into an all-channel market, in line with desires expressed by the Commission in its sixth report.

(2) The public has a vast investment in UHF receivers and antennas in the Miami area, currently in excess of \$10 million, which will go for naught with the advent of additional VHF operations in that market.

(3) Miami, because of its proximity to Habana and tropospheric problems in the South, is suffering serious interference on VHF which will be avoided entirely on UHF.

(4) The flat terrain and uniform year-round foliage in Miami is ideally suited for UHF.

(5) The coverage on UHF is roughly comparable to that which can be had on channels 7 and 10 in the Miami area.

(6) Successful UHF operations in Miami will have a tremendously beneficial impact on UHF development nationwide. Miami is rapidly becoming an important originating point for network programming. Successful UHF operations in Miami would go a long way in overcoming the present skepticism of some advertising agencies, network officials, time buyers, and set manufacturers after they have seen at first hand the potentials and advantages of UHF in this area.

In order that our deintermixture proposal for Florida and a portion of Georgia would not be rendered moot by intervening VHF grants in Miami, we asked the Commission not to grant channels 7 or 10 until it had taken final action on our deintermixture proposal. In July 1955 Chairman McConaughy assured this committee that no grants

would be made in cities where deintermixture proposals were pending until the deintermixture problem was settled.

However, on November 10, 1955, the Commission dismissed some 35 such petitions, without prejudice to their subsequent reconsideration on the merits in a general rulemaking proceeding ordered that same day. Our petition was not considered on its overall merits. The Commission, as Chairman McConnaughey advised you on February 20, has not yet rejected deintermixture. But with the general rulemaking proceeding going on and with my company presenting its views in that proceeding, the Commission is going ahead with VHF grants which foreclose favorable action at a later date on our deintermixture proposal.

The grants of channels 7 and 10 in Miami will not mean additional television service in that market. The people in that area are already receiving the programs of all three existing networks (CBS, NBC, and ABC). The coverages of UHF stations in the Miami-Fort Lauderdale area are roughly comparable to the coverage which the VHF stations will have. The two new VHF stations will simply replace existing services now being provided by the two UHF stations. The public will receive no benefits. In fact, Fort Lauderdale will be left without a station of its own.

Once the public buys sets and makes highband installation in reliance on channels 7 and 10, deintermixture in Miami is no longer feasible. With the Commission assuring this committee that it will reach a decision within the next few months on deintermixture, the Commission should refrain from making additional VHF grants in markets where deintermixture proposals are pending. If those VHF stations are allowed to go on the air, it will not be in the public interest to require those stations to move to UHF at a later date. The public will have made extensive investments in reliance upon those new grants.

In order that the Commission may tackle the problem on its merits, unfettered by intervening VHF grants which it has made since November 10, 1955, in markets where deintermixture has been proposed, it is my recommendation that this committee direct the Commission, a legislative arm of Congress, to suspend such grants until it reaches a decision within the next few months on the overall problem of deintermixture.

The vast majority of comments filed to date in the general rulemaking proceeding now in progress favor deintermixture in some form. Deintermixture is endorsed by such organizations as NBC, ABC, General Electric, Westinghouse, General Teleradio, Storer Broadcasting Co. If the Commission still has an open mind in these matters, as it professes to have, it should not be making VHF grants today in areas where, a few months from now, it may be required to institute involved legal proceedings to compel such grantees to shift to UHF.

I thank the committee for this opportunity to state my company's views regarding the desirability of deintermixing the Miami-Fort Lauderdale area.

Senator THURMOND. Are there any other statements to be offered in evidence this morning?

The next meeting of the committee will be held in the caucus room on March 26 at 10 o'clock.

The committee now stands adjourned until that time.

(Whereupon, at 11:50 a. m., the committee adjourned, to reconvene at 10 a. m., Monday, March 26, 1956.)

TELEVISION INQUIRY (UHF-VHF Allocations Problem)

MONDAY, MARCH 26, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 a. m., in room 318, Senate Office Building, Washington, D. C., Senator Charles E. Potter presiding.

Present: Senators Potter, Pastore, Schoeppel, and Bricker.

Also present: Wayne T. Geissinger, assistant chief counsel; Kenneth A. Cox, special counsel; Nicholas Zapple, staff communications counsel.

Senator POTTER. The committee will come to order.

We are resuming our hearing this morning on the television-allocation problem, although our first witness is going to discuss other matters. We have had testimony from UHF and VHF licensees and now we are going to hear from representatives of the networks. Before calling on our first witness, however, we have a number of items for insertion in the record.

First, a letter dated March 15, 1956, from the American Farm Bureau Federation, urging continuation and extension of radio and television service to rural areas.

Second, a letter dated March 16, 1956, from Benedict P. Cottone, enclosing a copy of a letter to Hon. George C. McConaughy, Chairman of the Federal Communications Commission, from Frank Lyman, Jr., of Middlesex Broadcasting Corp., advising that UHF station WTAO-TV, of Cambridge, Mass., will go off the air on March 30, 1956, and outlining the reasons for such action. Mr. Lyman testified before this committee on February 27, 1956, regarding the problems of a UHF station operating in the shadow of a large city with multiple VHF services.

Third, a statement of Arthur W. Scharfeld on behalf of Radio Wisconsin, Inc., permittee of Madison, Wis., television station WISC-TV.

(The documents referred to are as follows:)

AMERICAN FARM BUREAU FEDERATION,
Washington, D. C., March 15, 1956.

HON. WARREN G. MAGNUSON,
*Chairman, Senate Committee on Interstate and Foreign Commerce,
Senate Office Building, Washington 25, D. C.*

DEAR SENATOR MAGNUSON: The American Farm Bureau Federation—a general farm organization with 1,623,222 member families in the 48 States and Puerto

Rico—is concerned about proposals to increase the number of television channel allocations currently under consideration.

Your committee, in the conduct of hearings on this subject, will, of course, give thoughtful consideration to the effects of any proposal which might reduce the effectiveness and power of television stations bringing education and entertainment into rural homes.

Many farm people, particularly those far removed from urban centers, depend on communications media such as television for information and recreation even more than do city and suburban residents. A recent survey by the industry indicates that 40 percent of the rural residents of the Nation now have television sets.

Any move which might retard the growth of TV service to rural areas by a reduction in the transmission effectiveness of existing stations would seriously impair the increasing value of this media to farm families.

At the December 1955 annual meeting of the American Farm Bureau Federation, the following policy resolution was adopted by the official voting delegates of the State farm bureaus:

"Radio and television broadcasting provides an invaluable service to rural areas and farmers. We strongly support the efforts made by the industry to expand and improve its coverage of news and farm affairs.

"We urge that the Federal Communications Commission give close scrutiny to the issuance of licenses and guard against any lowering of high standards of public service which might vitally affect programing and reception for farm families.

"Reduction of broadcasting interference, particularly as it applies to clear channel stations, is a constant challenge to governmental agencies and industry groups. We are firmly opposed to any Government regulations which might reduce, or threaten to reduce, service to rural listeners."

We respectfully request that this letter be made a part of the record of the hearings being conducted with regard to this matter.

Yours very truly,

JOHN C. LYNN,
Legislative Director.

COTTONE & SCHEINER,
Washington, D. C., March 16, 1956.

HON. WARREN G. MAGNUSON,
*Chairman, Interstate and Foreign Commerce Committee,
Senate Office Building, Washington, D. C.*

MY DEAR SENATOR MAGNUSON: I am transmitting herewith a letter dated March 13, 1956, from station WTOA-TV, Cambridge, Mass., to the FCC advising of the necessity of termination of the station's operation as of March 30, 1956.

It would be appreciated if this letter and the attachments thereto could be made a part of the record in the hearings which are now being conducted by your committee with respect to the UHF problem.

Sincerely yours,

BENEDICT P. COTTONE.

MARCH 13, 1956.

HON. GEORGE C. McCONAUGHEY,
Federal Communications Commission, Washington 25, D. C.

DEAR MR. CHAIRMAN: This is to advise you that effective as of March 30, 1956, UHF station WTOA-TV will suspend operations pending further developments in the current UHF crisis.

For me to detail for your information the reasons why we are forced to take this step would be carrying coals to Newcastle. Our story has its counterpart in the stories of the 57 UHF stations that have been forced to the wall since the adoption of the ill-fated television allocation plan which intermixed VHF and UHF channels in the same markets.

Our situation differs from the case of those who have gone dark before us, only in the fact that we should probably have taken this step months ago. We have refrained from doing so only because we thought we had reason to hope, during the past 2-year period, that the UHF problem was under careful study and that there would soon be forthcoming constructive proposals which would make it possible for UHF operators to continue to serve the public. However, hope ceases to spring eternal when a certain point in suffering is reached. I regret to advise you that in the case of WTOA-TV that point has been reached.

Middlesex Broadcasting Corp. has been rooted in the Cambridge community for many, many years, through its operation of AM station WTOA and its FM station WXHR. These have been modest operations; for it has been our chief objective to provide the city of Cambridge with service that more particularly meets its needs and tastes. We went into television with this same basic objective. When we did so, we placed our faith in the Commission's allocation plan and in pronouncements holding out rosy expectations as to UHF's capacity to serve as an effective public medium. Fortified by this faith, we placed our resources, experience, and effort into building a worthwhile television service for our community. Brief but eloquent testimony to that effect is attached to this letter. Two factors have now demonstrated that faith and those expectations to have been ephemeral. The first is the almost insuperable obstacle of incompatibility created by the Commission's intermixture in the Boston market of VHF with UHF channels. The second is the tremendously superior coverage and other economic advantages which the Commission's allocation plan gives to VHF stations. With respect to this second factor, we have found that we have hopelessly been trying to compete with two superpower commercial VHF stations in Boston (with a third on the way). We have been trying to compete for programs, revenues, and audience under the terrific handicap that our signal, even if it could be received by all receivers within our service area, could not reach the tremendously greater areas reached by each of the Boston VHF stations. Indeed, this inequality of competitive opportunity has recently been further aggravated. In addition to the competition of the Boston VHF stations, we now must contend with a Manchester VHF station, whose home community is about 50 miles from Boston, and which has been openly wooing national and local Boston area advertisers with proud claims as to how effectively the station serves the Boston area. This, of course, has resulted from the tremendous coverage areas which the Commission's present superpower, superheight rules have staked out for VHF stations.

To our way of thinking, the Commission's allocation plan, plus the types of day-to-day action which the Commission has been taking over the period of the past 2 years, have been breeding a dangerous monopoly in the most powerful medium of mass communications ever yet devised. The present trend must inevitably lead to disastrous consequences to the public and to the small-business entrepreneur. We take pride in the fact, perhaps foolishly, that we have had only small-business pretensions. We now see no possible way that we may continue to hold even such modest pretensions in the television field since we foresee no early and tangible indication that the climate will change sufficiently to make small-business aspirations worth while. We trust that we are wrong.

There have been some indications that the next 6-month period should produce developments which will (a) either create such a more favorable atmosphere for development of nationwide competitive television system in which the small operator can live; or (b) seal the perpetual doom of any such television system. Insofar as our situation is concerned, we have advanced to the Commission, in its pending reallocation proceedings, a deintermixture proposal which appears to offer some hope of a more truly competitive television situation in the Boston-Cambridge area. Although we are forced to suspend our operations, we will continue to hope and press for such developments to the end that we may be able, in such period, to resume television service on a basis whereby we could more effectively serve the public than has been possible in the past.

Very truly yours,

MIDDLESEX BROADCASTING CORP.,
FRANK LAYMAN, Jr., *President.*

EXTRACTS FROM LETTERS ON FILE AT WTOA-TV

"The Cambridge old age and survivors insurance district office serves some half million people in Middlesex County. WTOA-TV is the only commercial television station available for the important local tie-in."—Gerald J. Murphy, district manager, Social Security Administration.

"We were pleased to know that an attempt is being made to move WTOA-TV to a regular VHF channel. We feel that stations such as WTOA-TV contribute tremendously to the Commonwealth in all aspects of public relations as well as education."—Edith Povar Schneider, executive director, United Cerebral Palsy of Boston, Inc.

"I want to express my deep appreciation to you for the splendid civic interest displayed by WTOA-TV. I was delighted to participate in the series of programs you ran on State affairs. It was my deep regret that these shows did not have a wider audience."—Sumner G. Whittier, Lieutenant Governor, the Commonwealth of Massachusetts.

"We wish you well in your attempt to bring WTOA-TV to the regular television channels feeling that the same attitudes shown in your radio work will contribute to our community through your television programing."—George E. Gardner, pastor, Cambridge Baptist Church.

"I have heard recently of WTOA's attempt to move to a regular VHF channel. I can only say that everyone at United Community Services is behind you in this new effort. It would be a boon to every person in Greater Boston for a station as public spirited and cooperative as WTOA to obtain a VHF channel."—June E. Lord, radio-television director, United Community Services of Greater Boston.

"I understand you are making every effort to move WTOA-TV to a regular VHF channel. I certainly hope your efforts will be successful. In our opinion there is room and a real need for favorable action on your application."—Charles S. Wilson, executive director, Bay State Society for the Crippled and Handicapped, Inc.

"If you can obtain a regular VHF channel in the near future there is no doubt that the folks of the Cambridge area will be pleased. A VHF channel will lend itself to building a bigger and better Cambridge. May you have success in your endeavors."—Edwin J. Freeh, captain, Salvation Army.

"I feel sure that if a VHF license is granted, WTOA-TV will continue its outstanding record of public service."—Maj. Jay V. Poage, officer in charge, United States Marine Corps.

"The city of Cambridge should have a television voice such as your which can devote its attention to local endeavors."—William E. Maxson, head master, Lesley-Ellis School.

"We wish a successful attempt to have your station moved to a regular VHF channel."—Doris M. F. Mack, district director, Campfire Girls.

"While I am thanking you for what you did for the heart fund during the campaign, I want to add my congratulations for the part WTOA-TV took in presenting a pioneer project initiated by the Massachusetts Health Council, of which group I am vice president. Your station exhibited courage and leadership in a new field of health education which participating agencies value highly."—Charles A. Gates, executive director, Massachusetts Heart Association, Inc.

"* * * so be assured of our good wishes and prayers for the success of your efforts to secure for WTOA-TV from the Federal Communications Commission a regular VHF channel so as to be on the truly equitable basis which the American system of broadcasting strives to maintain."—Father Matthew Hale, S. J., director, Sacred Heart program, Boston.

"I sincerely hope that station WTOA-TV can be moved to a regular VHF channel and remain on the air."—Ruth S. Signor, associate director, Girls' Clubs of Boston.

"We know we need at least the number of stations which have been allocated so that we might avoid the problems of the pre-1946 radio situation when a market cornered by a few did not promote good competitive programing and engineering practices and yet it is not an equitable situation when the ability to compete is not equalized. This the Federal Communications Commission in all justice and fairness must solve. We certainly wish you well."—Joseph E. Porter, acting director, Massachusetts Council of Churches.

"It goes without saying that the chapter wishes you well in your attempt to secure a regular VHF channel."—John F. Bean, executive director, Cambridge Chapter, American Red Cross.

"This letter is to present my thanks to you and your staff at WTOA-TV for your very able assistance to the Cambridge Civil Defense Agency and thereby to the citizens of Cambridge during the hurricane seasons of 1954 and 1955. I hope you will be successful in obtaining a regular VHF channel so that you can compete on a more equal basis with other stations thereby extending your range of public service to a greater number of people in this area."—Deputy Chief Edmund N. Burke, Director of Civil Defense, Cambridge, Mass.

"I want you to know that the department wishes you well in your effort to secure a regular VHF channel."—Charles E. Downe, acting commissioner, department of commerce, Commonwealth of Massachusetts.

"I want to take this opportunity to thank you and station WTOA-TV for its fine cooperation with the World Affairs Council. I hope you will take every

step possible to become a regular VHF channel. I am convinced Boston needs another VHF channel and I certainly hope it goes to WTOA-TV."—John S. Gibson, executive director, World Affairs Council.

"Word has reached us that station WTOA-TV has applied for a VHF channel and we want to go on record as wishing you success."—Francis A. Hunt, information service representative for New England Veterans' Administration.

"We do wish you success in your attempt to move WTOA-TV to a regular VHF channel. Whatever you can do to stabilize your own situation will be an asset to the Greater Boston area."—Alden Eberly, assistant general secretary, YMCA.

"You and your associates may be proud of the way you have handled the UHF situation under severe difficulties and I know from personal experience that there is great respect for your operation. I have watched with a degree of sadness the loss of UHF operations in Maine, Providence, and Worcester and can only hope that your attempt to move WTOA-TV to a regular VHF channel will be considered with favor by the Federal Communications Commission."—Robert A. Price, publicity director National Association of Manufacturers.

"In spite of the limitations which circumstances have placed upon WTOA-TV in the past you have given the public schools every possible consideration. We feel with a regular VHF channel you will be able to provide us a far greater opportunity to present programs of educational and civic work."—Dennis C. Haley, superintendent of public schools, Boston.

STATEMENT OF ARTHUR W. SCHARFELD ON BEHALF OF RADIO WISCONSIN, INC.,
PERMITTEE OF MADISON (WIS.) TELEVISION STATION WISC-TV¹

My name is Arthur W. Scharfeld, and I am submitting this statement today as attorney for Radio Wisconsin, Inc., licensee of Madison radio stations WISC and WISC-FM, and permittee of television station WISC-TV now under construction on channel 3 at Madison, Wis. I have been active in communications law practice before the Federal Communications Commission and its predecessor, the Federal Radio Commission, for over 25 years and have represented Radio Wisconsin during the more than 8 years it has actively sought an authorization to operate a TV station to serve Madison and the surrounding area of south-central Wisconsin.

I would like to clarify the many misleading and inaccurate statements made in the present hearings before this committee in the statement filed on behalf of Monona Broadcasting Co., licensee of television station WKOW-TV, Madison, Wis. Monona operates 1 of 3 UHF television stations in Madison and participated in the rulemaking proceedings leading to the adoption of the sixth report and order, as well as in subsequent proceedings of recent date when it did an about-face on its previous representations to the Commission.

Monona seeks to create the impression that it applied for its UHF assignment at the instigation of the Commission and without knowledge of the general superiority of VHF operation; it would lead you to believe that it virtually received a guaranty from the Commission of successful commercial operation and that it would be insulated from local VHF competition. Such are not the true facts, since the Commission did neither.

Paradoxically, Radio Wisconsin originally proposed in the proceedings which resulted in the allocation plan that all Madison commercial television assignments be placed in the UHF. This was proposed to avoid the unhealthy situation of having stations in the UHF band (then being opened up for the first time) face the disadvantage of substantial ownership of VHF-only sets should a VHF station go on the air first. Under the circumstances then existing of unavailability of UHF transmitters, equipment, or receivers, this was a serious threat to the possible successful operation of UHF stations which got on the air subsequent to the VHF for which both equipment and receivers were available. Monona, however, in its pleading filed at that time with the Commission, attacked such proposal as "a gross subversion of the public interest and a waste of natural resources" and insisted that VHF channel 3 be retained in Madison as specified in the allocations plan. It further argued that our proposal could not be applied on a limited, local basis—i. e., only to Madison—but must be applied, if at all, upon a national scale. This, incidentally, is precisely the ground upon

¹ In connection with this statement, see contrary statement of Stewart Watson, president of Monona Broadcasting Co., of Madison, Wis., printed on p. 639.

which the Commission denied Monona's recent belated proposal for so-called selective deintermixture.

Monona has had full opportunity to present its views to the Commission beginning in 1951—and it has exercised that opportunity by first taking one position which it deemed to be personally beneficial and then taking the opposite view when that seemed to serve its purpose—even to the extent that it would perform a public disservice. Not satisfied with the Commission's refusal to sanction its tactics for delaying television service to the people of Madison and the State of Wisconsin, it has appealed to the courts, as it may properly do under the statute, but now, despite its purported disclaimer, it is urging this committee to determine the very same issues presented to the court of appeals.

In neglecting to detail or describe the basic characteristics of its proposal for selective deintermixture Monona endeavors to leave the impression that this is a very simple matter to be accomplished without difficulty under the Commission's allocations plan. It proposes that VHF channel 3, allocated under the sixth report and order for service to Madison and surrounding area, should not be used as assigned merely in order to protect WKOW-TV from economic competition of a VHF station that was assigned to Madison and available to Monona at the same time as Monona accepted its UHF assignment. This proposal represents then a drastic reallocations technique, running counter to significant principles of television development heretofore applied by the Commission under congressional mandate. Here I have reference to section 1 of the Communications Act calling for the widest possible extension of television service, section 307 of the act requiring a fair, efficient, and equitable allocation of TV channels to the several States and communities, and to that equally fundamental principle, enunciated by the Supreme Court in the *Sanders Bros.* case (309 U. S. 470) (and now imbedded in the Communications Act) that broadcasting's economy is one of free competition.

The Commission's sixth report and order set up the present nationwide table of TV assignments based on certain underlying allocations principles. Intermixture of VHF and UHF was such a major principle and it was applied both generally as well as specifically in Madison. The Commission then repeatedly stressed VHF's many advantages over UHF, ranging from VHF's established nature and the ready availability of VHF equipment through VHF's superior propagation characteristics and lower operating costs. No one then doubted VHF's greater superiority from economic as well as technical points of view, as shown alone by the emphasis on VHF by hundreds of parties first seeking VHF allocations and then filing VHF applications. Almost all of the protracted comparative hearings were for VHF stations, while in UHF quick, cheap, and uncontested grants were the rule. Because of intermixture of VHF and UHF in Madison and the concentration of 3 of 5 Madison applicants on its one VHF channel, Monona and the other Madison commercial UHF station, WMTV, obtained just such UHF grants. Going on the air in mid-1953, they have had a 3-year head start over Madison's VHF just recently emerged from a long, arduous, and expensive comparative hearing.

This substantial head start by three Madison UHF stations (including an educational station) where there was no preestablished VHF has enabled UHF to achieve a uniquely entrenched status in that city, perhaps unequaled anywhere else in the United States. Among the factors so responsible is the admittedly complete (100 percent) UHF set saturation in the area (i. e., all sets but 1 percent are UHF sets), plus the acceptance of Madison UHF by the viewing audience, advertisers, and national networks. WKOW-TV has a major network affiliation and station WMTV has two. Indicative also are recent news stories in both the trade and local Madison press indicating that station WMTV is to be sold to the two Madison newspapers for approximately \$600,000 for a two-thirds interest in that station (the Madison Capital Times, March 7, 1956, p. 1; Broadcasting-Telecasting, March 12, 1956, p. 79). Madison is perhaps the classic city in the United States in which intermixture should work effectively as the Commission contemplated. In short, no intermixture problem has been shown to exist there.

Not satisfied with its entrenched position as an operating TV station in Madison, WKOW-TV as well as WMTV, have sought through the device of selective deintermixture to abort the competition anticipated since 1952 from the local VHF. To do so, Monona claims inability to compete with a local VHF station solely in reliance upon ambiguous data from the experiences of UHF stations elsewhere in the United States that are totally irrelevant and inapplicable to the Madison situation. These instances occurred mainly in dissimilar circumstances where UHF sought to compete with preestablished VHF stations.

VHF service, and large numbers of outstanding VHF-only receivers. Substantially different results have obtained where the UHF stations, as here, have had a head start over VHF. In fact, no adverse competitive effects from VHF, as such, have ever been shown for UHF stations as deeply entrenched as they are in Madison.

Monona alleged economic insecurity but never offered the Commission a single financial statement as proof. Its assertion (without detailed sustaining data) of an overall operating deficit, has little meaning since FCC data shows that all postfreeze VHF stations have, in the aggregate, also suffered substantial overall operating deficits. Today's allocation problems are not confined to the UHF alone, since postfreeze VHF stations have also gone off the air and certainly are not caused by intermixture per se, since many failing UHF stations had no competition whatever from a local VHF.

The Commission afforded Monona and other UHF stations a careful and comprehensive rulemaking proceeding on their proposals for selective deintermixture in Madison and four other cities. The Commission, on the record of that proceeding, found no merit in these proposals and denied them on the basis that selective deintermixture was an unsound and defective approach to the problem. Such major departures from existing standards and principles, it concluded, could not meaningfully be considered on that limited and isolated city basis but only on the nationwide basis invariably used for general TV reallocations. Accordingly, it simultaneously commenced such a general proceeding in docket 11532 which is now underway. In it the Commission is considering a vast variety of proposals running the gamut of possible allocations actions, including as one possibility proposals for deintermixture on a nationwide basis.

In attacking the Commission's action granting a station on Madison channel 3, Monona incorrectly makes it appear that this was a hasty action, whereas actually the matter has been under consideration in one form or another since 1948 when applications for Madison's VHF station were first filed. The hearing on competing VHF applications for Madison's channel 3 commenced in August 1953, and its record closed in December of 1953. Radio Wisconsin, as well as any applicant for VHF channel 3, had statutory rights on its own part to a full, fair, and reasonably expeditious determination of its application, and the delay has already deprived the people of Madison and surrounding area for too long a time of their first VHF service authorized by the 1952 sixth report and order.

VHF service has provided the mainstay for our nationwide TV system, particularly in serving rural and agricultural areas remote from population centers. WISC-TV on Madison channel 3 will provide 80,000 people in Wisconsin with their first and only recognized TV service, as well as bring a second, alternative recognized service to additional tens of thousands. WISC-TV's service to "white areas," otherwise without any recognized service, is a conclusive fact, established in the proceedings before the Commission by reliable data utilizing established engineering standards. While Monona disputed such data before the Commission and again in its statement to this committee, it never offered anything having the slightest reliability to the contrary. Its contentions—based on unrecognized, skimpy, and incredible statistics—were untenable, if not nonsensical.

To show that there was some (nonrecognized) TV service given to these 80,000 persons in an area of 2,631 square miles, Monona relied on a total of 408 responses to 976 phone calls made to residents of 9 towns on the area's periphery. From these, it sought to evolve data allegedly applicable to the entire area, including the incredible assertion that people 125 miles away from a TV station received what Monona deemed satisfactory service. Monona's purported offer of a house-to-house canvass was only made out of hand by its counsel when faced with disproof of its existing data during final oral argument as late as July before the Commission; this itself admitted the inadequacy of its data. Similarly meaningless is Monona's statement that it committed itself to increase its facilities should the area be deintermixed. This, too, admits that channel 3 coverage is greater. In any event, the use of increased facilities has been available to Monona from the commencement of the proceedings, and it is a poor excuse at this time to offer to provide more service if the Commission deletes VHF from Madison; there is scarcely a businessman who would not so expand to fill the vacuum created by the Government's aborting of its rightful competition.

I might point out that no competitive equalization of facilities exists in AM radio which utilizes several distinct grades of service to meet the country's overall radio needs. For example, Madison has three AM radio stations, of

which Monona's WKOW has the widest coverage and regularly advertises its higher power on a more favorable frequency than Radio Wisconsin's WISC. Both stations operate, however, with differences in audience, advertising, and programming related to coverage differences. Much, if not precisely the same, situation will develop in Madison television with both VHF and UHF stations on the air. Monona, however, seeks the equalization of TV facilities only—at the expense of the viewing public as well as of the successful VHF applicant for channel 3.

The Commission, in my opinion, has properly discharged its statutory obligations as to television development in Madison in the light of existing facts and circumstances. It has properly prevented further unreasonable delay in bringing new television service to Madison and to a substantial segment of the State of Wisconsin now without recognized service. Monona challenges these administrative actions before the committee but the distorted and incomplete statement made on Monona's behalf has provided nothing upon which the committee can or should rely in attempting to evolve policies that will promote the further development of television service.

Senator POTTER. Our first witness this morning will be Mr. Richard A. Moore of station KTTV, Los Angeles, Calif., who will discuss, I understand, the matter of certain network practices as they affect the operation of independent stations and the public interest in general.

(For the testimony of Mr. Moore and of Prof. Donald F. Turner of Cambridge, Mass., who addressed himself to the legal aspects of these problems, see the testimony for this date set out in the later volume on Network Practices.)

(During the afternoon session, testimony was heard from Mr. Ernest Lee Jahneke, Jr., vice president and assistant to the president of the American Broadcasting Co. His testimony was as follows:)

Senator POTTER. Mr. Jahneke, vice president and assistant to the president of the American Broadcasting Co.

STATEMENT OF ERNEST L. JAHNCKE, JR., VICE PRESIDENT AND ASSISTANT TO THE PRESIDENT, AMERICAN BROADCASTING CO.

Mr. Jahneke, we are delighted to have you appear before the committee. About 2 years ago you were here in a similar capacity, I recall.

Mr. JAHNCKE. Yes, sir, Mr. Chairman. I am very happy to have the opportunity, again, to express the point of view of American Broadcasting Co. I might say I hope this is my last appearance on this subject and that the problem will be solved in the next 2 years, sir.

Senator POTTER. We had that hope 2 years ago, didn't we?

Mr. JAHNCKE. Yes, sir.

Senator POTTER. Mr. Jahneke, do you have some associates with you who might be testifying? If you would care to introduce them now for the record, you may do so.

Mr. JAHNCKE. Yes, sir.

May I introduce, on my left, Mr. Frank Marx, vice president in charge of engineering of the ABC, who is qualified to speak on any engineering questions or aspects that may come up; behind me, Mr. James McKenna, ABC's Washington attorney, and Mr. Joseph Jacobs, of ABC's New York legal staff.

Senator POTTER. I notice you have a prepared statement here. What is your pleasure? Do you care to go through the statement without interruption and have the questions at the conclusion of your statement?

Mr. JAHNCKE. No, sir; that wasn't my intention, Mr. Chairman, not that I wouldn't be most willing to be interrupted at any time. I

hope I can complete my testimony, with interruptions and questions, rather than being recessed and called back later.

Senator POTTER. All right. You may proceed.

Mr. JAHNCKE. My name is Ernest Lee Jahncke, Jr. I am vice president and assistant to the president of the American Broadcasting Co. ABC welcomes again the opportunity of testifying before this distinguished committee on the grave problem of television allocations.

In connection with the testimony of Mr. Moore,¹ I would like to say that ABC would like to have the opportunity to speak to that testimony and I understand we will have that opportunity at a later date when network practices are discussed.

Senator POTTER. That is correct.

Mr. JAHNCKE. However, I would like to make 1 or 2 observations at this time, if I may, as they relate to allocations, first of all—and they will all be made under the general point that I disagree completely with Mr. Moore's statement.

I think Mr. Moore has in great part presented the opinions of ABC, but he arrived at the wrong conclusions. I think everything he said is an effect, not a cause. I think it all stems from the economy of scarcity, of not enough outlets—from the position of monopoly and duopoly that exists because we have not been able to have free access to the market place or enough TV stations to serve the public interest.

He cited that in radio you don't have these pressures only because the scarcity has been eliminated. I submit that the main concern of this committee is to eliminate that same scarcity. I submit that the various plans that have been proposed to solve this problem are not as different as has been suggested and that immediate action is absolutely essential.

Senator PASTORE. In other words, what you are saying, Mr. Jahncke, is that a lack of competition exists because of lack of facility rather than lack of regulation?

Mr. JAHNCKE. I think, Senator Pastore, that regulation stems from scarcity. You eliminate the scarcity, you eliminate the necessity for regulation—and free competition will act in the traditional American Government situation.

For example, ABC owns its own TV stations, but we operate only in markets that have at least 3 competitors, in addition to ourselves, and have since 1948. As a network operating individual TV stations we are just as concerned with our obligation to serve the public interest locally and nationally as any other licensee. We have competed in New York against 6 competitors; in Los Angeles against 6 competitors; in Chicago against 3; in San Francisco against 2 and now 3; and in Detroit originally against 2 and now 3.

Senator PASTORE. As contrasted with the situation in New York, what is your predicament in relation to localities where they only have 1 station or 2 stations?

Mr. JAHNCKE. We don't own any stations in such markets, sir, and we rarely, if ever, have the opportunity to have an affiliate in such a market.

Senator PASTORE. I am not speaking of affiliates. I mean insofar as your network activities are concerned.

¹ See note on p. 752 above. The portions of Mr. Jahncke's testimony relating to Mr. Moore's testimony are also printed in connection with the latter in the volume on Network Practices.

Mr. JAHNCKE. Our network activity in respect to 1- or 2-station markets is a ceaseless activity, usually futile, to get access or persuade these duopoly markets to even schedule an ABC program.

I would like to refer to a couple of specifics in Mr. Moore's testimony. On page 11 of his testimony he listed 40 markets in discussing "must buy" policies. I only mention it because I would like to read the 16 markets that are neither "must buys," nor any other buys on ABC. They are the 16 markets to which we don't even have access. They are Boston, St. Louis, San Diego, Louisville, San Antonio, Tampa, Rochester, Omaha, Syracuse, Oklahoma City, Sacramento, Norfolk, Providence, Davenport, Dayton, and Birmingham.

When we talk about competition—we don't compete in these places. We don't have equal access to these market places. I would like to refer to another part of Mr. Moore's testimony, on page 5, where he refers to his operation in connection with the Salk broadcast. I think KTTV's operation on that date was most commendable, but I make two observations: One, had it not been for the regular network use of A. T. and T. facilities, those facilities would not have been there, available and waiting, for Mr. Moore to buy them from Michigan to Los Angeles on that 1 particular occasion for 4 hours. A. T. and T. cannot maintain their lines for 4 hours a year. Secondly, I suggest that perhaps Mr. Moore's operation at that point was more in the nature of a temporary network, rather than as a poor, lone, independent station. We of ABC were happy to join in that network in both our Los Angeles and San Francisco stations, and, as my memory recalls, we did pay our proper share of the cost involved.

Senator PASTORE. With relation to these markets that you have just recited, including the city of Providence, how would that 75-percent rule that was suggested by Mr. Moore affect your network? Would it be bad, or wouldn't it have any effect at all?

Mr. JAHNCKE. Senator, I refer to that in my statement. I think any percentage figure is arbitrary. Mr. Moore chose 75 percent of 3 evening hours. Perhaps there are 4 or 5 or 6 evening hours, if we get 75 percent for 5 hours, perhaps it is more than any network is using today. I think, therefore, that any percentage figure subjects you to the arbitrary trap of substituting numerology for commonsense. As to whether—I don't think it is a question of whether the network uses too much. I think the network programs—I disagree with Mr. Moore, I don't think they are inferior. I think they are in the public interest.

I don't think that stations are fighting not to take network programs. Quite the reverse, as I understand it. Of course it is not my network, but stations find the privilege of being listed as a "must buy" an important asset, which is another way of saying that they are very desirous and happy to take network programs. The very popularity of network programs seems to me suggests they are in the public interest.

Mr. Cox. If they are listed as a "must buy," it relieves them of the obligation of selling their prime time, doesn't it, substantially—95 percent at least?

Mr. JAHNCKE. I didn't quite get that, Mr. Cox.

Mr. Cox. If the individual affiliate is listed as a "must buy," by either NBC or CBS, to the extent that Mr. Moore's statistics are reliable as to the percentage of time cleared, they have been relieved of the necessity of selling their prime time?

Mr. JAHNCKE. In my opinion it is not a question of being relieved of necessity. When a station affiliates with a network, part of that arrangement is that the network acts as the national sales agent. And to be listed as a "must buy" is a device between the sales agent and the advertiser, saying that the advertiser has to order. The station reserves its regular right as a licensee to accept or reject a program, depending upon whether, in its opinion as licensee, it is in the public interest. The "must buy" is a pressure on the advertiser, not on the affiliate, who merely is in a position to enjoy the advantages and benefits, if it so wishes, as a licensee.

Mr. Cox. The right reserved to the affiliate to reject, however, is not just that he doesn't think this is the most in the public interest, but that he thinks it is affirmatively contrary to the public interest, or that there is some peculiar local occasion which he feels requires the displacement of the program. Wouldn't that be a better description of the extent to which he can reject programs in option time?

Mr. JAHNCKE. I don't think that any stations have ever been reluctant to eliminate any program, network or local, for a program that, in its opinion, is more in the public interest.

Senator PASTORE. Let's get these things in their proper perspective. What you are actually saying, Mr. Jahncke, is this, that this "must buy" aspect of this situation affects relationship between the network and the advertiser insofar as it regulates the amount of money that the advertiser has to pay and the quality of the program that you can put on the air, as to the distribution you can make of that program?

Mr. JAHNCKE. Well, Senator Pastore, I think that you do have economics coming in here.

Senator PASTORE. That is what I mean.

Mr. JAHNCKE. In that the number of outlets needed to justify the cost of a program—the number of outlets which, may I hasten to point out, practically every advertiser wants, because he needs a distribution—all are factors in this situation, but I would like also to point out that we are discussing "must buy," which is a practice that doesn't obtain on ABC. I feel perhaps I should retreat from this discussion.

One last comment on Mr. Moore's testimony. On page 39 he speaks about the Lawrence Welk Show, which we are very happy to have the privilege of broadcasting in the public interest, and he says he regrets the public was deprived of the opportunity to hear and see this program because of network reluctance to schedule it. We are happy to schedule it, and I only regret that the public is still deprived in a great many places of the privilege of seeing the Lawrence Welk Show because we do not have access to quite a few markets for that program, which even Mr. Moore admits is completely in the public interest.

If I may return to my prepared statement—

Senator POTTER. What percentage of your class A option time do you program? I mean, what percentage of a class A time on your affiliate stations do you provide?

Mr. JAHNCKE. We—

Senator POTTER. I notice the percentage in Mr. Moore's statement of the four networks. I was wondering if your network was using up all of its option time.

Mr. JAHNCKE. No, sir, we are not using all of the option time. I think class A time is limited to those 3 hours that are optioned by law to the network. There is nothing illegal about network option time. Both the FCC and Justice Department, as I understand it, have ruled this is a perfectly legal arrangement. May I say I think we are innocent until proved guilty in this respect. Of the 3 hours that are optioned to us, we are not using all of them. Perhaps we could use more, if we were able to compete more totally with the other two networks—and by “compete” I mean have access to the market place. For example, Senator Pastore, we do not have access to Providence, R. I., and Mr. Chairman, we do not have access, or at least equal access, to places like Lansing, Grand Rapids, or Kalamazoo, Mich. We do compete, for example, in the Detroit area.

Mr. Cox. Of the programing which you do provide in option time between 7:30 and 10:30 or 7 and 10 in the evening, what percentage of that programing is normally cleared for you by the ordinary affiliate?

Mr. JAHNCKE. I do not like to identify any affiliate as ordinary. We love them all. We only regret we do not have enough of them. [Laughter.]

Mr. Cox. By a typical affiliate—or aren't they typical, either?

Mr. JAHNCKE. Our clearance on affiliates where we have full access to the market place is good, and comparable to the other two networks. I think it is good only because we program in the public interest.

Mr. Cox. Do you think that you would clear as high a percentage of that program time if your affiliate had the option to replace the program you offer with one from another source which he happened to think was better?

Mr. JAHNCKE. I do not quite follow that, sir.

Mr. Cox. That is, suppose that instead of having a clause in your agreement which says that you can, subject to very minor restrictions, require the affiliate to accept the programing you offer during option time, you didn't have that; do you think that there is a real possibility that some of your affiliates might find programs from other sources which they thought would attract more viewers and would be more in the public interest—not as a general rule, but as against certain programs which you offer?

Mr. JAHNCKE. Any program schedule is an average of its best and its worst. Perhaps it is reasonable to assume that any one person might be able to develop a program better than the worst of a given list of programs, but I think we get back, basically, to allocations here. We are talking about the fact that we only use 6 hours a day, or only have 6 hours a day option in the practical area, afternoon and evening. This is far from 90 percent of the station's time. I mean, after all, most stations are on the air from 8 in the morning until midnight. It is against this projection of 16 hours that maybe we should talk about 6 hours, or even 9 hours. It is not that great a percentage of the station's time.

Mr. Cox. We will reserve other questions. You may go on to your statement now.

Mr. JAHNCKE. My statement today supplements the statement which I made on behalf of ABC 2 years ago before the Communications Subcommittee of this committee under the chairmanship of Senator Potter, which at that time was considering the status of UHF stations.

ABC then warned of the dire fate of UHF television if corrective action was not taken immediately by that committee and the FCC. I regret that the record of the past 2 years shows that we were accurate prophets.

I cannot overemphasize the importance of immediate positive action by your committee in shaping the future course of this country's most dynamic industry.

Television broadcasting faces an existing and future shortage of stations which prevents effective competition today and forecloses significant improvement in the future.

In addition to the scarcity of television stations, inherent defects in the existing allocation plan, principally the intermixture of UHF and VHF, preclude effective use of all available channels. Unless changes are made quickly UHF will disappear and television will be limited to only 12 VHF channels. These have always been recognized as grossly inadequate for a nationwide competitive system.

ABC has participated in each television allocation proceeding and has sought an allocation framework which would permit a truly competitive system. We looked forward to the lifting of the freeze—that was 1952—and the opening up of the UHF band. We hoped that the availability of additional channels in this band would enable us to attain equality of access to television outlets. But first the backlog of competitive applications bogged the Commission processes and prolonged the scarcity of outlets in major markets. Now the failure of UHF in intermixed markets threatens to make the scarcity permanent.

As the third network striving to reach equality with CBS and NBC, ABC has been the victim of this unnatural and unnecessary shortage of television outlets. With many of the most important markets of the country limited to one or two stations, ABC has been unable to obtain a national audience for all its programs and the public has been deprived of the freedom of choice of at least three program services.

Although ABC stands to gain a great deal by achieving competitive equality the real beneficiaries will be the public who in many areas cannot see outstanding ABC programs, for example, Disneyland, Voice of Firestone, John Daly, Danny Thomas, Bishop Sheen, Lawrence Welk, and many others.

ABC is itself the result of congressional mandate to the FCC to foster competition. The predecessor company of ABC, the Blue Network, was originally established by NBC to provide its radio listeners with a diversity of program selection. In 1941 the FCC in its Report on Chain Broadcasting found that it was contrary to the public interest for NBC to own both the Red and the Blue Networks and ordered that one be sold. The Commission in its order approving the sale of the Blue Network to ABC expressed the hope that the sale would mean a much fuller measure of competition among the radio networks.

Unfortunately the degree of competition envisioned by the FCC in radio has been severely hampered by the fact that almost all the key clear-channel stations are affiliated with CBS and NBC. The question of how to make the most efficient use of these clear-channel stations was the subject of extensive hearings commenced by the FCC in 1945, 11 years ago. The FCC has not yet rendered a decision in that

proceeding. Will the same restrictive pattern of inaction, indecision, and delay for a decade be repeated in television?

The competitive advantage enjoyed by NBC and CBS in radio as a result of their preponderance of clear-channel affiliates has been extended to television. Most of the operators of these clear-channel stations are today the owners and operators of the VHF television stations located in monopoly and duopoly markets.

The competitive handicap under which we operate in radio is far less severe than that in television. In radio we have been able to obtain affiliates in all important markets even though their coverage is more restricted than that of the NBC and CBS stations. In television, however, there are 39 of the top 100 markets, including Boston and Pittsburgh, where monopoly conditions do not permit us to have an affiliate at all.

It is undeniably true that our inability to compete with the other two networks in radio and during the early days of television was in some measure due to our lack of capital with which to develop programming. That problem, however, was solved by our merger in February 1953, with United Paramount Theatres, Inc., to form our present corporation, American Broadcasting-Paramount Theatres, Inc.

It is our firm conviction that the major problems facing the television industry are the lack of at least three competitive facilities in the major markets and the preservation of UHF television.

The solution of both of these closely interrelated problems is essential to the development of a truly national, fully competitive television system—the opening up of the present monopoly and duopoly markets to free competition.

We had hoped that the sixth report and order of the FCC would solve our problem of competitive access to these monopoly markets. Experience has proven conclusively, however, that a UHF television station cannot compete against multiple VHF competition even when the UHF station is in the market first and a high rate of conversion exists. This is an indisputable fact, which must be used as the starting point for the correction of the inadequacies of the present allocations system.

I therefore take exception to that portion of the FCC's testimony before this committee in which UHF stations in West Palm Beach, Tampa-St. Petersburg, Wichita and Sacramento are cited as exceptions to the maxim that UHF stations are unable to survive against multiple VHF competition.

In the case of West Palm Beach, less than a month after the FCC testimony was given, WIRK-TV, the UHF station, discontinued operations.

In Wichita, UHF station KEDD commenced operations on August 15, 1953, as the NBC affiliate. At approximately the same time a VHF station also commenced operation in the market. Within 1 year there were 124,000 VHF homes as compared to 74,000 UHF homes.

By the end of a 2-year period this disparity had grown to 222,000 VHF homes as compared to 126,000 UHF homes. Subsequently, two other VHF stations also commenced operation in this market. Recognizing the desperateness of its competitive situation, KEDD petitioned the Commission on February 2, 1955, to deintermix the Wichita market by assigning another VHF channel in place of the UHF chan-

nel. The petition was denied. I understood effective May 1, 1956, KEDD will lose its NBC affiliation to a VHF station. The rest of the story you can guess.¹

Senator PASTORE. At that point, do you take the position that it was feasible to give KEDD a VHF station?

Mr. JAHNCKE. I do not know from an engineering point of view whether a VHF channel was available under any existing set of engineering standards, but I take the position that at this point it is hopeless to expect a UHF station to try to survive against three VHF signals in that market.

Mr. Cox. I would suppose it fair to assume that if a formal petition for deintermixture was filed there must have been engineering support for the proposition that at least a reduced-coverage V could be dropped into that market, which at least would get around this conversion problem.

Mr. JAHNCKE. I am not familiar with their application. I do not know the engineering aspect.

Mr. Cox. Mr. McKenna, do you have some knowledge of that?

Mr. MCKENNA. I am advised, Mr. Cox, that the petition contained with it an engineering statement showing how an additional VHF station could be assigned to the area.

Mr. JAHNCKE. In Sacramento, Calif., UHF station KCCC-TV was on the air for almost a year and a half before the two VHF stations started. Prior to that time KCCC-TV operated at a profit. It now operates at a loss. It has applied to the FCC for a VHF channel as the only means of survival. This is not intermixed prosperity, as was suggested by the FCC.

The story in Tampa-St. Petersburg is tragically similar. WSUN-TV, the UHF station in this market, was on the air for 2 years before the 2 VHF stations commenced operation. I was advised by the manager of this station last week that its overall time sales now show a 42.5-percent decrease.

I have discussed these specific cases for two reasons. First, I think they prove ABC's contention that UHF cannot prosper against multiple VHF competition. Second, the fact that these markets were selected by the FCC to illustrate UHF's ability to compete with multiple VHF stations suggests a lack of knowledge of the problem or an unwillingness to face facts.

In view of the desperate urgency of the allocations problem, we do not feel that this committee or the FCC should allow itself to be sidetracked from the central allocation issue by such subsidiary matters as tower heights, boosters, translators, satellites, power increases, etc. While these proposals all have undeniable merit, they are of value only if the UHF station is in a market in which it can survive from an allocation point of view in the first place.

The matter of the high cost of A. T. & T. television transmission facilities has also been raised. There is no doubt that the extremely high cost of this service limits the ability of many stations to receive live network program service.

ABC's television line charges are now over \$6 million a year. We are in no position to know if this is too high. However, I would like to point out that the A. T. & T. is a common-carrier monopoly which

* EDITORIAL NOTE: KEDD left the air in April 1956.

comes under the regulation of the FCC. The tariffs governing the charges for television lines were filed with the FCC in 1948. We agree that it is time that the FCC determined the fairness of these charges.

Mr. Cox. Are you yet in a position, Mr. Jahncke, to take advantage of the A. T. & T. tariffs for a minimum 8-hour usage per day? That is, these bulk rates which apparently prevail as far as NBC and CBS are concerned?

Mr. JAHNCKE. We are in a much better position than we were 2 years ago, and in some cases we are using more than 8 hours a day. I think it is of interest that the basic service only provides an 8-hour distribution system. Already all 3 networks have requirements above 8 hours a day on the average and, therefore, normal operations automatically put you in an excess or premium bracket as far as tariffs are concerned. We are all paying overtime for normal operations, as contrasted with radio broadcast tariff, which provides 16 hours of service for the base rate; television transmission facilities only provide for 8 hours and you pay overtime above that.

Mr. Cox. As I recall your testimony 2 years ago, you indicated that your rates were proportionately higher for the amount of cable service you got than those of the other two networks. Does that continue to be true, even though to a lesser degree?

Mr. JAHNCKE. It continues to be true, but to a lesser degree. Let's put it this way: Because of a smaller use, our purchase relatively is less efficient, although we all operate under the same tariff.

With respect to subscription television, which has also been mentioned, we do not believe that it will provide an answer to the UHF problem. Certainly the creation of a competitive, free television service should take precedence over any pay television device. We are pleased to read that this was also the position of Chairman McConaughy of the FCC in his testimony before this committee.

We do not believe that positive action on television allocations should await the conclusion of the present FCC network study which, according to the estimate of Chairman McConaughy, will not be completed until sometime in 1957. I might point out that the last study of networks took over 3 years to complete and so perhaps even the 1957 date might be optimistic.

This committee should consider interim regulation of VHF stations in monopoly and duopoly markets by a variation of the plan suggested by Dr. DuMont in the Potter hearings 2 years ago. This would require VHF stations in a market where there are less than 3 competitive outlets to share their service equally and equitably among the 3 networks.

Mr. Cox. How would you do it?

Mr. JAHNCKE. The suggestion has been made there is an undue amount of control among the three networks. I suggest there is an even greater undue control in a market such as Providence where there are only 2 stations, and 2 managers determine everything that is available for the citizens of that community.

Senator PASTORE. Have you any suggestion as to how it should be regulated?

Mr. JAHNCKE. I certainly think the regulation should be one in effect only until the basic end of sufficient facilities is available. I think it should operate to provide positive entry rather than operate as an additional barrier to an additional program service common to

the market. We have places where Disneyland is not available. I submit that, by any program standard, that program is in the public interest, regardless of what time of day it is broadcast, and if we cannot get into a market with that program, this is the operation of monopoly and duopoly against the public interest. These operators—I am not suggesting that they connive to create or perpetuate monopoly. They enjoy the benefits at the moment, which have gone on too long. We would prefer to have our own station in Providence.

Senator PASTORE. The point I am getting at is this. Of course it is easy to make a platitudinous statement, but to give us a specific cure for it is another problem entirely. Are you suggesting that the Federal Communications Commission be given the authority to evaluate the quality of the program, to determine whether or not it should come in?

Mr. JAHNCKE. No, sir. I disagree completely with the concept of Senator Bricker, for example, that broadcasting is a public utility. I disagree completely with the concept that there should be any governmental control over program content as abridgement of free speech and censorship. I say this: I think if a network such as NBC broadcasts a program from coast to coast and it is broadcast by its affiliates around the country, it is fair to say that that program is in the public interest, and therefore, without the FCC entering into the dangerous area of judging program content, it can accept and assume that the broadcast of that program is not against the public interest, and therefore, in the public interest.

Senator PASTORE. That is all right. I follow you.

Mr. JAHNCKE. Therefore, may I suggest this possibility: A regulation limited only to the areas where there is a scarcity—let's take Providence, where there are 2 stations—by which each of the 2 stations would be required to make available 1 hour, for example, of their prime time to a third program service. This would not give the third program service parity. It would give it some reasonable representation in the market. If you just used that example in the evening hours, where a station lawfully grants a 3-hour network option time period, if 1 of those 3 hours were made available to a third program service, the primary network would still have a 2 to 1 advantage. Therefore, I am not talking about parity, I am talking about just a reasonable representation until the basic problem is solved.

Mr. Cox. Is it your position that the FCC now has authority, in its regulation of the contracts its licensees enter into with networks, to impose such an overall time limitation in those areas where there are not available three fully competitive facilities, and that they could do that under this present existing authority?

Mr. JAHNCKE. Mr. Cox, I think they can, but as a practical matter, I think that if there is merit to the suggestion, they will, most probably, if they receive a suggestion, mandate or directive from this committee so to do.

Senator POTTER. I recall Dr. Du Mont's proposal that in a 1- or 2-market community—at that time there were 4 networks—that they allow the networks who have no affiliation to have 25 percent of the time on the other station. Is that what you are making reference to?

Mr. JAHNCKE. Yes, sir: only I am making reference to a positive suggestion that when a program is broadcast coast to coast, by licensees, each of whom in their individual communities has the respon-

sibility to broadcast in the public interest—if they schedule these programs, that is evidence enough that the program is in the public interest, and, therefore, the FCC does not have to concern itself as to whether, if such a station in a duopoly or monopoly market schedules it, it would be control of program.

Senator POTTER. Let me ask you this: Assuming that I have a station in a one-station community. I have an NBC or CBS affiliation. I wanted to show Disneyland. Could I, as a manager of a station, secure Disneyland from you to show on that station?

Mr. JAHNCKE. Senator, we have spent the last 8 years trying to persuade stations in 1- or 2-station markets to carry our programs. To give you an idea—

Senator POTTER. Some do it, don't they?

Mr. JAHNCKE. Certainly some do, fortunately, sir. That is perhaps why we are still in business. Over the whole country, if you will just take, let's say, the top hundred markets, as an example—this is not the whole country, but it is the heart of it—the degree to which NBC and CBS can obtain live clearance normally is in the order of around 85–90 percent. Our figure would be about 55 to 60 percent compared to that. This is access to the marketplace. This is not whether our programs rate higher or lower than any other person's programs. This is physical access. This is places where, as in Lansing or Grand Rapids, or Providence, we do not have an affiliate.

Senator PASTORE. How do you show your programs in Providence? Disneyland does show in Providence. Please explain that.

Mr. JAHNCKE. In addition to their NBC schedule, the NBC station, I think it is, Senator Pastore, schedules Disneyland around its NBC schedule.

Senator PASTORE. In other words, that shows in Providence not through any agreement with you?

Mr. JAHNCKE. There is an agreement; yes, sir.

Senator PASTORE. But through the NBC station?

Mr. JAHNCKE. No, sir. The NBC station has a secondary, subsidiary arrangement with us to carry our programs in addition to their basic arrangement with NBC.

Senator PASTORE. If they are tied up with NBC, where do they get the latitude to make an agreement with you? That is what isn't clear in my mind.

Mr. JAHNCKE. Senator, the network option time rules provide that a station is permitted to grant no more than 3 hours in any segment of the broadcast day to a network, but there is no prohibition on a station from taking more than 3 hours if they consider the programming in the public interest. That is why, in addition to 3 hours, some stations take more than one network. In addition, there is nothing to prevent a station from having an affiliation with more than one network; for example, in the case of Providence, this NBC arrangement, they have a secondary arrangement with ABC and take some of our programs. In effect, we are in a position where we peddle our programs in Providence, we try to get—

Senator PASTORE. If I may follow this through, please, because this is quite important to me. I want to understand this. You say on page 7:

This would require VHF stations in a market where there are less than 3 competitive outlets, to share their services equally among the 3 networks.

Now, if what you say here is true, then how do you reconcile it with this fact that you can negotiate with the third station as you have already suggested?

Mr. JAHNCKE. I do not negotiate, sir, with the third station. I negotiate with 1 of the 2 existing stations. I do not negotiate equally with the other two networks.

Senator PASTORE. When I say "they," I mean the two existing stations in Providence can negotiate with you as to the showing of a special program that they would like to show in the public interest.

Mr. JAHNCKE. That is almost what we usually refer to as a per program arrangement, which is something less than a full affiliation, sir. I do not have the same opportunity, nor do I negotiate with these stations, nor have the same prospect of getting my programs scheduled, particularly at the correct time, as do the other two networks. I frankly do not know when the Disneyland program is broadcast in Providence, but I know it is not at the scheduled time of 7:30 to 8:30, Wednesday evenings. I know that is true.

Senator PASTORE. No. It shows on Sunday afternoon.

Mr. Cox. It is not in option time then; is it?

Mr. JAHNCKE. It is either not in option time or else it is in some option time that the station is not giving to NBC. It is assuming not an equal access to the market place.

Senator POTTER. Would you comment on the statement made by Mr. Moore? If it is all right for you as a network to go into a two-channel market to sell programs, why isn't it equally justifiable for an independent producer to go into that market?

Mr. JAHNCKE. Nothing prevents the independent producer right now, Mr. Chairman.

Mr. Cox. Except the option?

Mr. JAHNCKE. I do not have any option time in Providence and I still get Disneyland in there. I go in with the Disneyland program and a sponsor and I would say, "Would you carry the program, I would like it carried at 7:30 Wednesday." I end up on Sunday afternoon, with the best hour I can do. Any packager that wants to go in and say he has one of these high-rated blood and thunder shows that Mr. Moore cited, and has got a sponsor for it, and if the station wants to carry it on Sunday afternoon, there is nothing to prevent the station from doing it, either.

Senator PASTORE. But it is a rebroadcast?

Mr. JAHNCKE. Yes, a delayed proposition.

Senator PASTORE. I think you have explained that to my satisfaction.

Mr. JAHNCKE. We have programs such as Voice of Firestone, John Daly, news, coverage of conventions, and a lot of programs which, by their nature, have to be broadcast live or not at all; as to which we are automatically denied access to the market.

Senator PASTORE. There is another point I would like to clear up now. Let's assume your suggestion, as you have illustrated it on page 7, were carried out. How does that affect the relationship between the network and the advertiser as to the quality of the program and the amount of money it might cost? Will that impede it in any way? I think in the beginning of your statement you said that fundamentally you could not do too much along the line of dictating how

many distribution points you should have because that is a contractual relationship between the network and the advertiser. In other words, in dealing for a particular program, it is vitally important to the advertiser how many outlets he is going to have.

Mr. JAHNCKE. As a practical matter, sir, rather than the advertiser being put upon and forced to buy something like 50 markets, I think the facts would prove that the advertiser, in practically all cases, wants to buy many more than that minimum because the advertiser has a national advertising job to do, and this automatically means he needs many more than 50 stations.

Senator PASTORE. Your plan would bring more advertisers into the field and into these facilities?

Mr. JAHNCKE. No, sir. I am not suggesting this as a basic solution. The basic solution is to move channel 3 to Providence in my opinion.

Senator PASTORE. Everybody knows Pastore is from Providence. [Laughter.]

Mr. JAHNCKE. If I may, Senator, for this one afternoon may I say that is ABC's problem, not yours, because we feel equally strongly about it.

Mr. COX. Do I understand your position on this two station market situation to be that, if a proposal such as Dr. Du Mont suggested were effectuated, instead of having to deal hat in hand with a station that is basically affiliated with one of your competing networks, you would then have, under FCC regulations, the opportunity to place your programs, at least to the extent of one-third of their prime time, onto each of those two stations?

Mr. JAHNCKE. That is correct, sir. Let me hasten to say, I just want to deal with them hat in hand or otherwise. I just want to deal with them.

We opposed proposals of this kind during the Potter hearings, principally because we thought that these monopoly and duopoly markets would be eliminated by reallocation to permit free competition. However, experience of the past 2 years has convinced us that this plan, whatever its drawbacks, would be a preferable alternative to further inaction.

Regulation of this type, however, does not go to the heart of the problem. Broad reallocation is essential.

The FCC has recently reaffirmed, in the current reallocation proceedings (Docket 11532) the objectives of its 1952 Sixth Report and Order as follows:—(1) at least one service to all areas; (2) at least one station in the largest possible number of communities; (3) multiple services in as many communities as possible to provide program choice and to facilitate competition. Since priorities 1 and 2 have, on the whole, been achieved, ABC believes that the FCC should now make priority No. 3 its first order of business.

Therefore, the objective of providing multiple service should be handled first. The real deterrent to the development of a nationwide competitive system is the lack of at least three comparable television facilities in the major markets. Unless this is corrected, the economy of scarcity will continue and television broadcasting will fall far short of realizing its full potential. Equally serious is that the industry will be confronted with a virtual monopoly which will inevitably result in rate and other regulations.

The interrelation between the existence of three or more competitive program services and the survival of UHF television has become abundantly clear. A UHF station cannot survive without attractive programming. At the present time national networks are the primary source of this programming. Since national advertisers are interested in their programs' receiving the widest possible circulation, they are reluctant, and in many cases unwilling, to have their programs on a noncompetitive UHF station.

Clearly, therefore, the public interest requires immediate reallocations. This has not been done. Administrative delay by the FCC, which is an arm of Congress and the responsibility of this committee, has prevented the solution of the allocation problems in the time which has elapsed since the Potter hearings.

Even where no reallocation is involved the industry has been the victim of FCC delay. To illustrate what I mean, final decisions have not yet been reached in Seattle, the 21st market; Miami, the 22d market; Norfolk, the 50th market; Omaha, the 51st market; or Jacksonville, the 60th market. Oral argument has not yet been had in the competitive hearings pending for Boston, the 6th market; St. Louis, the 11th market; Buffalo, the 14th market; Indianapolis, the 25th market; New Orleans, the 28th market; or San Antonio, the 43d market. Initial decisions have not as yet been reached in Pittsburgh, the 8th market, or Toledo, the 45th market. Some of the applications have been pending for 8 years.

Mr. JAHNCKE. There is a partial answer to Mr. Moore. All of these stations, if they ever commence operations, will be looking for programming that film syndicators can provide in addition to networks. There is only one solution and that is to overcome the scarcity of stations. As long as you have 1- or 2-station markets around the country, how can any film packager expect them to need the same amount of program service as is necessary to supply the needs of a market like Los Angeles, which has seven stations that have to be programmed? The mathematics of it are simple.

Senator PASTORE. On that point, Mr. Jahncke, are you familiar with the background of these pending cases? Would you say the delays are due to the people involved, or does the fault lie with the cumbersome machinery of hearings that we have?

Mr. JAHNCKE. Both, sir, in my opinion. Certainly, there is a limit to the expediting that the FCC can do, because of their basic administrative process, but certainly there is fault if you don't start hearing a case until 6 years after the application has been submitted to the FCC. I submit that is rather undue delay.

Senator PASTORE. Where did that happen—hearings started 6 years after the application was put in?

Mr. JAHNCKE. We have applications still pending. Some of them have been pending over 8 years.

Senator PASTORE. That has been a matter of no little concern to the members of this committee. We have been very much concerned with that situation, but we are told continuously by the members of the Commission that it is not their fault—it is because of the machinery and the procedures that they are subjected to in holding their hearings and having these matters decided by the courts.

MR. JAHNCKE. Certainly there is a great—

SENATOR PASTORE. We agree, it is a matter of concern to us as well as to you.

MR. JAHNCKE. It is a question of the amount of speeding up that can go on at any given point. I would say, certainly, that to set up a system of priorities that leaves important markets such as Boston to the end of the processing line might be criticized. I suggest that when an initial decision is made and it takes over 12 months before a final decision is rendered, perhaps that is an awful long time for any administrative process to take place.

MR. COX. These are all cases in which no court intervention has been involved, to the best of your knowledge?

MR. JAHNCKE. Sir?

MR. COX. These are all instances in which they have not become involved in courts?

MR. JAHNCKE. These are all instances of contested applications that haven't reached the courts, because they haven't been decided by the FCC.

MR. COX. They are cases, with the exception of the Seattle case, in which the record has been closed—and in that case it was closed and then reopened?

MR. JAHNCKE. I am not sure whether all the records have been closed.

MR. MCKENNA. I believe that is correct, Mr. Cox.

MR. JAHNCKE. The FCC, in its testimony before this committee, pointed with pride to the fact that during the year 1955 the Commission had granted 53 construction permits for new television stations. Of these 13 were UHF stations, 3 were educational VHF stations, 2 were satellites, and 5 of the grants were located in Alaska, Puerto Rico, or Hawaii. Only 10 of the 53 grants were commercial VHF grants in the top 100 markets. In every instance but one, the applications for these VHF grants were filed between 1948 and 1952. Thirteen of the fifty-three grants were in markets below the top 300 markets, and in several cases the markets were so small they were not even classified.

I might observe that of this record, only 15 of these cases were contested at all in the first place. The rest were merely a question of the applicant qualifying and receiving an uncontested grant.

The FCC has coupled its inaction in the matter of granting additional VHF stations in monopoly and duopoly VHF markets with its denial of deintermixture in UHF markets. The only affirmative action which the Commission has taken on the allocations problem during the past 2 years will, if not reversed immediately, relegate UHF to an inferior position in such markets as Hartford, Peoria, Evansville, Albany, and Madison, if it survives at all.

MR. COX. Does that mean you would favor deintermixture in those areas to make those all UHF markets?

MR. JAHNCKE. I would like to describe it in this way if I may, Mr. Cox. I think that the full utilization of UHF is absolutely essential if we are going to develop a truly competitive, truly national TV system. Now, we have got a situation here where they don't have to describe the UHF problem any more. We all know it by heart. I think what we have to do is consider it like an infant industry that needs a protective tariff around it. You have got to stop hurting it,

you have got to give it some special protection just like you do for other industries, and permit it to grow and develop until it can be cast off on its own.

After all, this isn't unique in American history. Newspapers and magazines today enjoy a mail subsidy that amounts to millions of dollars, even after they mature.

Senator POTTER. We probably wouldn't have had the airlines if they hadn't had a subsidy.

Mr. JAHNCKE. That is right.

You have got to, it seems to me, stop killing the patient. You have got to put it through a period of convalescence and you have got to—even this isn't enough, you have got to ultimately work out some arrangement whereby you can look forward to the day, however distant, when every receiver in this system will be an all-channel tuner.

It is no good to check UHF during a holding period if you are not pointing to an ultimate full solution. If you don't get an ultimate full solution you will always have this economy of scarcity and you will always have the problems Mr. Moore suggested. You will have the problem of access to the market place and you will have the atmosphere, if you will, under which perhaps much more regulation will be needed than should be needed, and will be necessary, if the full potential of free television is permitted to grow.

Mr. Cox. Would you say this: That if there is any validity to the concept of developing markets which are all UHF, that these five areas would represent as likely candidates for that as any?

Mr. JAHNCKE. Mr. Cox, I believe that you have got to protect UHF (a) in as many markets as possible, and (b) in the largest possible markets. No one will say "If you let it grow in X number of cities that is enough; and if you don't—it is only Y cities—that is not enough." It is a matter of degree. The more places where you can permit UHF not only to survive but to grow, the greater your chances of having it take its proper place as a part of a single national television system.

Mr. Cox. Would you say the first step to protect UHF in these areas or any others would be to stop making grants of ungranted V channels in these areas?

Mr. JAHNCKE. I would say, Mr. Cox, I think that deintermixture is an inevitable first step. I don't understand how you deintermix by intermixing. Certainly, the situation should not be aggravated in these cases. Certainly a stop should be put on all further entry of VHF into these areas, until the basic allocation problem is decided by the FCC.

Senator POTTER. In other words, you can't go in two directions at the same time?

Mr. JAHNCKE. That is correct, sir.

Senator PASTORE. Have you an answer to the contention being made by some of the Commissioners that the spirit of the sixth report and order requires them to continue to intermix and grant as many of these allocations as possible, and that there is a reason for doing it. I am just asking for your comment on this. Their reason for doing it is that unless they allow these VHF's to go into some of these localities—let's take Hartford, for instance—their argument is that unless that VHF station goes in there, there will be certain gray areas that will

not be properly serviced. Now, what is the answer to that? I would like someone to comment on that.

Mr. JAHNCKE. Senator, first of all, it is our belief that the gray areas, or the areas to which service would be added, are insignificant. That includes the Connecticut Valley, No. 1.

No. 2, I submit that this problem is of sufficient seriousness that the overall public good must be the consideration, rather than a slavish following of the sixth report which, however well intentioned, is admittedly antiquated today.

Suppose a few people in Connecticut or Rhode Island don't get service for another 6 months. That is a reasonable price to pay to solve this problem, which is very serious and fully national in scope in my opinion. I don't think it is valid at all to suggest that the national problem has to be set aside some 80 more homes in Connecticut—and I speak as a resident of Connecticut. I might add, sir—can get service that presumably is not available to them today.

Senator PASTORE. Are you convinced that unless some solution is found along that line, UHF might very well disappear entirely from the TV scene?

Mr. JAHNCKE. I am, sir. It is merely a question of time. I think the record of the past 2 years shows this. As I recall, the chairman read another letter into the record regarding WTOA-TV, Cambridge. It has gotten to where we are now announcing the burial dates ahead of time. That is the next one to go, leaving the air next week, or the end of this week. It is just bound to happen. It doesn't have to happen. That is the thing that is important.

Senator PASTORE. Do you envision as the ultimate solution to this entire problem that one day we are going to have all-channel sets, 100 percent?

Mr. JAHNCKE. Yes, sir; I do. Senator Pastore, may I use this specific example to illustrate. I think that taking channel 3 from Hartford and putting it in Providence does not take anything away from the State of Connecticut and does not give anything undue to the State of Rhode Island. It solves a problem in one market, Providence, without causing a problem in another market, Hartford. Hartford has a perfectly reasonable TV program service at the moment. The people of Hartford have a choice of three different programs. Why shouldn't the people of Providence have the same privilege?

Senator PASTORE. I like to hear you make that argument, because that is the argument that I have made, too. But of course the argument that they use in refutation of that is this: That there are certain gray areas in Connecticut that can only be serviced by granting that additional VHF station on channel 3 in Connecticut. Your answer to that is that the number of people affected is small, and that they may have to sacrifice for the general good. That is a good argument, depending upon which foot the shoe is on.

Mr. JAHNCKE. It is my understanding, Senator, that first of all, the argument is made based on present UHF signals available. Now, I suggest that any analysis should be based on future UHF signals, or full implementation. Let's assume UHF is given the atmosphere of survival and permitted to grow. Then, if the UHF stations in the Connecticut Valley go to maximum power of at least a megawatt—as is the plan, as I understand, of both NBC and CBS in that area, and I think Mr. Putnam of Springfield testified that he had increased his

power and probably will increase it more. I wonder how many people would be left without service if UHF was permitted to realize its full potential in this area, with maximum power and maximum tower height.

Now, I speak from my understanding. If you would like an engineering comment I am sure Mr. Marx can document this thing from an engineering point of view.

Mr. MARX. Well, I don't believe it needs documentation, but to emphasize just a moment: In the first place, there is no UHF station today that is truly using a megawatt. They are doing it by relatively low power transmitters and very high gain antennas, which means that you have a narrow wedge-shaped signal that in many cases passes over certain of the areas you would like to serve.

Secondly, there is no UHF receiver presently available today, or band receiver, that even remotely approaches the sensitivity of the VHF receivers. This, again, is something which will continue unless the facilities are made available to truly allow the UHF stations to operate on their own, so that they are not competing against the V.

Senator PASTORE. I am inclined to agree with you. Once you intermix, I don't see how in the world you will later on be able to deintermix.

Mr. JAHNCKE. There is one way you deintermix later, if I may suggest it, sir—through the death of UHF. That is the way future deintermixture will take place.

Senator PASTORE. You are speaking now of a total demise.

Mr. JAHNCKE. Yes, sir.

Mr. COX. That is, you would be left with only 12 VHF channels for a national system, on the basis of deintermixed VHF service, with a reduction of service and concentration of service.

Mr. JAHNCKE. That is correct.

Mr. McKENNA. Senator, with respect to the Hartford case, about which you questioned specifically, I am familiar with the engineering evidence that was submitted in that case, and it showed that even with existing powers and heights, that there was no white area in the area that would be deintermixed if channel 3 were moved to Providence. It so happens in the Connecticut Valley you have a large concentration of existing UHF stations, which at the present time provide a grade B or better service to all areas and it was agreed, I recall, by the persons who were opposing the removal of channel 3 from Hartford, that the white-area argument was not available in that particular situation.

Senator PASTORE. It strikes me that that is the only argument that they could reasonably have. Do you agree with that?

Mr. McKENNA. I agree with that, sir. I agree that even that is not a complete argument in opposition, because, as Mr. Marx pointed out, as UHF power is increased, and as these stations reach their full potential, they will cover these areas.

Senator POTTER. I would like to ask Mr. Marx a question.

We had testimony before this committee by the Chief Engineer of the Federal Communications Commission, Mr. Allen, where he testified that UHF in metropolitan areas just didn't work out; that the buildings served as a means to block the reception.

Now, it is my understanding that UHF could be, with proper power and proper engineering, as effective as the UHF. The testimony

that we received from Mr. Allen indicated many problems that would certainly lead you to believe otherwise.

What is your engineering judgment on that?

Mr. MARX. I think I can go back a few years to answer that for you, Senator.

There used to be only low channel VHF stations, going up to channel 6. Among the first few grantees of the high channel stations—before one of the grantees was in Washington, channel 7—one thought very seriously of carrying his grant to the courts in order to force the Commission to give him a low channel VHF station, because channel 7 at that time was believed to be no good—that you could not get the service out of it that you wished to.

ABC took the opposite position in the early days. We believed that channel 7 was one of the better of the VHF channels, starting with channel 2—as a matter of fact, channel 1, when we made that decision.

We have seen nothing to date to prove the contrary. The point is that 7 years ago the reception of channels 7 to 13 was almost an impossible situation in many areas in this country, and certainly in the metropolitan areas. With the improvement of VHF receivers, and the improvement in the power-handling capacities of transmitters and new transmitting antennas, you find that the high channels do an equally good job as the low channels, and in some cases superior. It is my opinion as an engineer that history is going to repeat itself—and let me again state that there has been no UHF station on the air to date that has used a megawatt, or a million watts, in the true sense of using the power.

What he has done is to use 50,000-watt transmitters, and then made up the difference by high gain antennas. Now, what you are doing there is directing your signal, because you are taking the energy and squashing it into a very narrow beam, so that instead of getting the true value of 1 megawatt, you are getting some small portion of it in large areas, and only out here somewhere [indicating] do you feel the impact of it.

Senator POTTER. Do you think that if your UHF were given a healthy climate, the engineering problems would solve themselves?

Mr. MARX. I am convinced of that because we have seen it too often. You couldn't build 50,000-watt transmitters on VHF 10 years ago. No one knew how to do it. You certainly could not get powers in the order of 100,000 watts. A million watts was unthought of—as a matter of fact, unheard of—and you could prove very readily, I think, that you couldn't achieve such powers. We are coming close to it. As a matter of fact, the Commission now has before it a proposal to allow UHF 5 million watts. Yes. Once these things are granted they will be used, providing they can be used in a healthy atmosphere.

Senator POTTER. All right. You continue.

Mr. JAHNOKE. Inaction, however, is not the exclusive province of the FCC. Failure by this committee to take affirmative action and to supply the FCC with guidance is unquestionably a major factor in the present allocation crisis.

Since the Potter committee hearings we have had questionnaires, reports, press releases, studies, postponements, meetings, and the formation of ad hoc committees, whose only conclusion to date has been that a problem exists. ABC's representative on the Bowles ad hoc

Advisory Committee on Allocations resigned last week, giving as his reason the fact that the Committee had held only one meeting since its formation on June 21, 1955—and that meeting was the organization meeting held on June 21—and had “utterly failed to discharge its responsibilities.” In short, no progress has been made in the past 2 years and our national television system has been made poorer by the UHF stations which have gone off the air during that period.

Regardless of this negative record, prompt action by Congress and the FCC can still insure a truly national, fully competitive television system and a truly national educational television service.

May I point out that there cannot be any sort of a reasonable educational TV service without the survival and utilization of UHF.

To accomplish this, the FCC must first stop the present deterioration of UHF.

Senator PASTORE. Could I interrupt you at that point, Mr. Jahncke?

I feel very much as you do as to the fact that this thing has been delayed and delayed, and actually we are no better off today than we might have been 2 years ago. There has been inaction throughout, and it strikes me that everyone does recognize the problem, but no one suggests the remedy. The Commission has already taken the position that it must carry out the sixth report and order—I think that is the majority opinion of the Commission.

Mr. JAHNCKE. That is my understanding, sir.

Senator PASTORE. As they have testified here. But now how do you justify—and this is the question that I direct to your attention specifically—under what pretext could the Congress of the United States require, command, or direct an administrative body like the FCC, on an engineering problem, to do thus and so? I mean, what would be the justification for Congress, and how would you, practically, work out that problem?

Mr. JAHNCKE. Well, it seems to me first of all that the FCC is merely an arm of the Congress, to execute its will.

Senator PASTORE. I realize that. Now, we are getting into a reality. The Commission is the administrative agency that determines these technical problems. Now, right, wrong, or indifferent, the problem that has bothered me is: How do you convince the Congress of the United States, in both branches, to take this bull by the horns, on a question that is not a political question—a question which is purely a technical question—and tell the Commission what it should do? I mean, facing the realities of the situation, I wonder if the solution that is being proposed by the many witnesses here—who are all of good intention, and chances are frustrated somewhat because of the attitude of some administrative agency, but I wonder if we are not all overstepping a little bit by suggesting that the Congress decide whether or not there should be intermixture or deintermixture. Is that really a congressional problem?

Mr. JAHNCKE. Senator. I think it is not a technical problem, a technical engineering problem. I think it is a problem of national public interest, and that is the concern and proper area of the Congress. I am not suggesting that the Congress pose as a group of superior engineers. I am suggesting that there is sufficient evidence—and I don't know of anyone who has seriously questioned the logic of deintermixture, with the exception of those who treat the sixth re-

port as a sacred cow, but I don't know of anybody who has seriously questioned the desirability of deintermixture.

I suggest, therefore, that perhaps this is an emergency area. UHF stations are dying. A great future is possibly being jeopardized. Perhaps that is the atmosphere where the Congress can overlook technicalities and take some emergency action, only for a temporary period. This isn't saying that the whole thing is abolished. Just stop, hold everything, until we take a look, and then direct them to take a look promptly, now.

Senator PASTORE. I realize what you say, but the mechanics or the practical realities of every situation, as I have been able to understand it—and I have been here now for a little more than 5 years—usually the recommendations of an administrative body are taken quite seriously by a congressional committee. Now, we have had testimony here from the Commissioners, who have said that they want to see these allocations granted and these assignments made—and then later on they will decide as to whether or not we should have deintermixture. Now, in view of that recommendation, how do we supersede it or overrule it as purely legislative body? That is the thing that is troubling me.

Mr. JAHNCKE. Well, it is my understanding that—or the suggestion has been made that perhaps a Senate resolution, whereas it wouldn't be an automatic order, would be very effective in accomplishing the result.

As I understand, when the suggestion was made for superpower in radio—that is, for stations to go to 750,000 watts—a Senate resolution, which I believe was introduced by Senator Wheeler at that time, had the practical effect of stopping it right now, until a look could be taken. This was not an order to the FCC, but it had the practical effect of—

Senator PASTORE. Was that resolution passed by the Congress?

Mr. JAHNCKE. By the Senate. It had the practical effect of the FCC following the suggestions in the resolution.

Senator PASTORE. But you will admit this. From what you have been able to hear from witnesses that have testified at this hearing, and what you have been able to read, that resolution that you would pass would be tantamount to overruling a decision already made by the Commission. Are we agreed on that?

Mr. JAHNCKE. We are agreed on that, sir. I think the time has come to overrule the Commission.

Senator PASTORE. I just wanted to know your position.

Mr. JAHNCKE. I don't think it would be a lonely ruling, sir. The majority of the industry, even before the sixth report and order was issued, favored deintermixture; and certainly not only a majority, but virtually the entire industry that has testified in the Potter hearings and before this hearing to date, has testified in favor of deintermixture.

Senator PASTORE. For the purposes of the record, you will admit that the Commission has taken a view opposite to the one the industry has taken?

Mr. JAHNCKE. The majority of the Commission; yes, sir.

Mr. COX. I take it your suggestion is limited to a declaration of broad policy on the part of the Senate, not any specific decision as to

deintermixture in this area or that area, or how many areas should be deintermixed, or anything of that sort?

MR. JAHNCKE. My suggestion is that the FCC be directed, through whatever device, not to make the problem worse. Don't put any more VHF stations in any area that is a reasonable area to consider as one of these UHF areas, to be protected while we build.

SENATOR PASTORE. In essence, what you are saying, Mr. Jahncke, is that the Commission forget for the time being, until this problem is settled, the sixth report and order, and hold everything in suspension until the issue is decided?

MR. JAHNCKE. To the extent that the sixth report and order does not appear to serve the public interest in this particular area, yes, set it aside. The public interest should always overrule any given report.

SENATOR PASTORE. Thank you very much. I just wanted your categorical answer on that.

MR. JAHNCKE. To do this, the FCC must prevent additional VHF stations from going on the air in all areas where deintermixture to create predominantly UHF markets has been proposed. The FCC should continue to do this until such time as it has completed and implemented its present overall television allocations study.

The prime objective of this action is to create an atmosphere of survival for UHF television. This atmosphere would, of necessity, be reflected in increased public interest in UHF, increased advertiser support of UHF, and increased manufacture of all-channel receivers.

The arresting of further deterioration of UHF is the necessary first step. However, this will serve no useful purpose unless the allocation plan ultimately adopted by the FCC provides a framework for a truly national television system. This framework must include strong UHF areas and provide facilities for at least three competitive national program services in each of the major markets.

ABC has proposed to the FCC a plan by which this can be done. This plan is contained in our original petition for reallocation dated October 7, 1955, our comments in the overall allocation proceeding, dated December 15, 1955, and our reply comments dated February 8, 1956, copies of which I would like to submit for the record. The illustrative channel changes which we recommended in our reply comments are set forth in appendix A of this statement.

SENATOR POTTER. Without objection appendix A will be included in the printed record and the other documents will be retained in the committee's files and incorporated in this record by reference.

(The information is as follows:)

APPENDIX A

SPECIFIC REALLOCATION RECOMMENDATIONS

ABC recommendations for allocation revisions in major markets are hereinafter outlined. These proposals are for markets that are presently capable of supporting more than the number of stations now in operation and where the only obstacle to additional service is the allocations plan. Accordingly, they are limited to those changes which are necessary to achieve competitive three-station service, to avoid destruction of existing UHF stations, and to permit at least some deleted UHF stations to return to the air.

A. Two VHF station markets

The most critical group of markets are those now served by 2 VHF stations, for experience has demonstrated that UHF cannot survive in competition with

2 or more VHF stations. Without adequate competitive outlets for all three networks these markets are denied their full share of network programs. Moreover, the existence of such markets among the first 100, which are important in network operations, weakens ABC and through it, its affiliates, and thus hinders the growth of a competitive television service nationally. In the two VHF-station markets the only possible solution which would not require substantial disturbance of existing services with resulting hardship on the public is to find additional commercial VHF channels. Fortunately this can be done in most of the major markets in this category. A list of these cities with suggested solutions follows:¹

(a) Providence-Pawtucket, R. I. is the 29th market. It has operating VHF stations on channels 10 and 12, and no other VHF channels allocated. A UHF station was in operation, but has been forced off the air. This market could be made competitive by removing ungranted channel 3 from Hartford, thus deintermixing the Connecticut Valley and assigning it to the Providence area.

(b) Louisville, Ky., is the 32d market. It has operating VHF stations on channels 3 and 11, and no other VHF channels allocated. A UHF station was in operation but has been forced off the air. A second UHF station has been granted but never built. A third competitive service can be provided in Louisville by removing VHF channel 7 from Evansville, Ind., which is now an all-UHF area,² and assigning it to Louisville.

(c) Rochester, N. Y., is the 36th market. It has operating VHF stations on channels 5 and 10, and no other VHF channels allocated. Four UHF construction permits, including one educational permit, have been granted. None of these stations have been built. The Rochester market could be made competitive by the assignment of channel 13.

(d) Dayton, Ohio, is the 41st market. It has operating VHF stations on channels 2 and 7, and no other VHF channels allocated. A UHF station was on the air for a brief period but has closed down. A third service could be provided for Dayton by the assignment of channel 11.

(e) Birmingham, Ala., is the 42d market. It has operating commercial VHF stations on channels 6 and 13, and a noncommercial educational station on channel 10. No other VHF channels are allocated. Construction permits for two UHF stations have been granted, but the stations have not been built. A third commercial service could be provided for Birmingham by the assignment of channel 3.

(f) Tampa-St. Petersburg, Fla., is the 44th market. It has operating VHF stations on channels 8 and 13. It is also allocated channel 3, which is reserved for educational use, but has not been applied for. A UHF station is on the air on channel 38. Tampa-St. Petersburg could be provided with additional commercial VHF service by releasing channel 3 for commercial use, or by the assignment of channels 5 and 10.

(g) Syracuse, N. Y., is the 52d market. It has operating VHF stations on channels 3 and 8, and no other VHF channels allocated. A construction permit has been granted for an educational UHF station, but the station has not been built. Competitive services could be established in Syracuse by exchanging channel 8 for channel 7 at Carthage, N. Y. This change would permit the move of channel 9 from Elmira, N. Y., to Syracuse, making Elmira once again an all-UHF market. A second alternative would be to permit the move of channel 6 from Schenectady, N. Y., to Syracuse as part of a plan to make Albany-Schenectady-Troy UHF only.

(h) Oklahoma City, Okla., is the 53th market. It has operating commercial VHF stations on channels 4 and 9. Channel 13 is also allocated, but reserved for educational use. A construction permit has been granted on this channel. Two UHF stations have been in operation in Oklahoma City, but both have been forced off the air. This city could be provided with a third commercial service by permitting the move of channel 5 from Enid, Okla., to Oklahoma City.

(i) Sacramento, Calif., is the 56th market. It has operating commercial VHF stations on channels 3 and 10. It is also allocated channel 6, which is reserved for educational use. A UHF station is on the air on channel 40. This city could be provided with a third commercial VHF service by releasing channel 6

¹ Since the objective of this solution is to solve the immediate need for a minimum of 3 services in the larger markets, cities with 2 local VHF stations which also receive good quality service from at least 1 nonlocal VHF station have been omitted. Cities with 2 VHF stations which have a third commercial VHF channel awaiting assignment have also been omitted.

² A grant was recently made on channel 7, but the station has not yet been constructed.

for commercial use or by permitting the move of channel 13 from Stockton, Calif., to Sacramento.

(j) Grand Rapids, Mich., is the 58th market. It now has a single VHF station on channel 8, with no other VHF channels allocated. It should be considered a two-VHF-station market, however, since it receives service from a VHF station on channel 3 at Kalamazoo. A construction permit for a UHF station in Grand Rapids has been granted, but the station has not been built. Grand Rapids could be provided with a third commercial service by removal of ungranted VHF channel 11 from Toledo and its assignment to Grand Rapids.

(k) Wheeling, W. Va.-Steuenville, Ohio, is the 75th market. It has operating VHF stations on channels 7 and 9, with no other VHF channels allocated. A UHF construction permit has been granted for Wheeling, but the station has not been built. ABC has been unable to find a satisfactory solution for immediate application in this market.

(l) Davenport, Iowa-Rock Island-Moline, Ill., is the 76th market. It has operating VHF stations on channels 4 and 6, with no other VHF channels allocated. A construction permit for a UHF station was granted, but the station was never built and the permit was deleted on November 18, 1953. This market could be made competitive by the addition of ungranted channel 8, which would be removed from Peoria, leaving the latter city UHF only.

(m) Duluth, Minn.-Superior, Wis., is the 82d market. It has operating VHF stations on channels 3 and 6. It is also allocated channel 8, which is reserved for educational use, but has not been applied for. A UHF station operated in this market for more than a year, but was forced off the air on July 11, 1954. This market could be made competitive by the release of channel 8 for commercial use, or the assignment of channel 11.

(n) Greensboro-High Point, N. C., is the 92d market. It has an operating VHF station on channel 2, with no other VHF channels allocated. It should be considered a two-VHF-station market, however, since it also receives service from the VHF station on channel 12 at Winston-Salem. A UHF construction permit for Greensboro-High Point has been granted, but the station has not been built. A UHF station is in operation at Winston-Salem. This market could be made competitive by the assignment of channels 6 and 8.

(o) Brownsville-Harlingen-Weslaco, Tex., is the 93d market. It has operating VHF stations on channels 4 and 5, with no other VHF channels allocated. No construction permits for UHF stations have been granted. This market could be made competitive by the assignment of channels 2 and 10.

(p) Shreveport, La., is the 95th market. It has operating VHF stations on channels 3 and 12, with no other VHF channels allocated. No UHF construction permits have been granted. A third service could be provided for this market by permitting the move of channel 9 from Lufkin, Tex., which now operates as a satellite, to Shreveport.

B. One-VHF-station markets

The next most critical group of markets are those which are now served by a single VHF station and which either have no other VHF channels allocated or an insufficient number to satisfy present demand. In many of these markets UHF stations have been able to accomplish substantial UHF conversion, since the programs of at least one network have been available on UHF only. There are three possible solutions to competitive television in these markets: First, not to grant additional VHF stations, leaving the market with its single VHF and multiple VHF services; second, to change the existing VHF service to UHF, so that the market will be UHF only; or, third, to allocate additional VHF channels in place of the UHF channels now in use. A list of markets with the solutions recommended by ABC follows:

(a) Miami, Fla., is the 22d market. It has an operating VHF station on channel 4. It is also allocated VHF channels 7 and 10, which are the subject of comparative hearings.³ VHF channel 2, which is also allocated to Miami, but reserved for educational purposes, has been assigned and is in operation. One UHF station operates in Miami on channel 23. Another UHF station operates on channel 17 in nearby Fort Lauderdale, which must be considered as part of the same market. A second UHF station was in operation at Fort Lauderdale, but left the air December 23, 1954. Since the Miami-Fort Lauderdale area is allocated 3 VHF commercial channels it does not present the same critical problem which is present in those markets with only 2 commercial VHF chan-

³ A final decision in the channel 7 case was released January 20, 1956.

nels. However, two UHF stations are on the air and substantial UHF conversions have been achieved. The terrain in this area is excellent for UHF propagation. Miami-Fort Lauderdale is one of the few major markets in which UHF has an excellent chance of success, and the establishment of this area as a UHF island would be very beneficial to the future development of UHF nationally. Accordingly, consideration should be given to deintermixture of the Miami-Fort Lauderdale area. The VHF channels removed from Miami-Fort Lauderdale would make possible additional UHF assignments in other Florida cities where UHF has no immediate hope of success.

(b) Hartford-New Britain, Conn., is the 27th market. It has no operating VHF stations, but it must be considered a one-VHF-station market since it receives from the VHF station on channel 8 at New Haven. UHF stations are in operation in both Hartford and New Britain. A construction permit for an educational UHF station at Hartford has been granted, but the station has not been built. VHF channel 3 is allocated to Hartford, and is now the subject of a comparative hearing which is awaiting a final decision. The replacement of channel 3 at Hartford with a UHF channel and the allocation of channel 3 to the Providence area would permit the continuation of a competitive television service in Hartford-New Britain-New Haven, and would also provide a third VHF channel for Providence.

(c) New Orleans is the 28th market. It has an operating VHF station on channel 6. A second VHF channel, channel 4, is now the subject of a comparative hearing awaiting a final decision. New Orleans is also allocated VHF channel 8, which is reserved for educational use. One UHF station has been in operation in New Orleans since October 15, 1953. Construction permits for three other UHF stations have been granted but the stations have not been built. It appears that New Orleans could be provided with three VHF services by releasing channel 8 for commercial use, by assigning channel 11, or by permitting the move of channel 2 from Baton Rouge. However, as noted, a UHF station has been in operation in New Orleans for a considerable period. The terrain in the New Orleans area is eminently suitable for UHF propagation. New Orleans, like Miami, could be made an important UHF island. Accordingly, consideration should be given to the alternative of deintermixing New Orleans.

(d) Albany-Schenectady-Troy, N. Y., is the 30th market. There is an operating VHF station on channel 6 at Schenectady. VHF channel 10 has recently been allocated to Vail Mills, where it would serve the Albany-Schenectady-Troy area, but the effective date of this allocation has been stayed by the court of appeals. One UHF station is in operation at Albany, and a second UHF station was in operation, but left the air January 31, 1955. Two other construction permits for UHF stations have been granted, but the stations have not been built. If the channel 10 Vail Mills allocation becomes effective a third VHF channel could be provided for Albany-Schenectady-Troy by permitting channel 8 to be moved from New Haven, leaving New Haven-Hartford an all-UHF area. An alternative solution is to make Albany-Schenectady-Troy an all-UHF area by deleting channel 10 from Vail Mills and permitting the move of channel 6 from Schenectady to Syracuse. As noted, one UHF station is now on the air in Albany. The second UHF station which is now off the air has stated that it will resume operation if the area is deintermixed. The area also receives UHF service from outside. UHF receiver circulation is high in Albany-Schenectady-Troy, and UHF has made a fair start in this area despite the existence of a prefreeze VHF station on channel 6. This is evidenced by CBS's recent decision to affiliate WROW-TV, channel 41, on a regular basis. Consideration should be given to making this area an important UHF island.

(e) Toledo, Ohio, is the 45th market. It has an operating VHF station on channel 13. Channel 10, which is also allocated to Toledo, is now the subject of a comparative hearing. A construction permit for a UHF station has been granted, but the station has not been built. It has been recommended above that ungranted channel 11 be removed from Toledo and allocated to Grand Rapids, Mich., in order to provide a third competitive service for the latter market. The removal of channel 10 may also encourage the establishment of UHF stations in Toledo. ABC has been unable to find a complete solution for immediate application in the Toledo market.

(f) Norfolk-Portsmouth, Va., is the 50th market. It has an operating VHF station on channel 3. It is also allocated VHF channel 10, which is now the subject of a comparative hearing. UHF stations are in operation at Norfolk and in the nearby city of Hampton. Competitive television service could be established in this area by the addition of channels 5 and 13.

(g) Jacksonville, Fla., is the 60th market. It has an operating VHF station on channel 4. It is also allocated VHF channels 12 for commercial use and 7 for noncommercial educational use. Channel 12 is now the subject of a comparative hearing awaiting a final decision. An application is pending for channel 7. One UHF station is in operation at Jacksonville, and a construction permit for a second UHF station has been granted, but the station is not yet on the air. Jacksonville could be given competitive television service by the addition of channels 6 and 10. Channel 7 could also be released for commercial use.

(h) Knoxville, Tenn. is the 73d market. It has an operating VHF station on channel 6 and is also allocated VHF channel 10 which is the subject of a comparative hearing in which a final decision was recently released. One UHF station is in operation at Knoxville. Unused educational channel 2 at Sneedville could be moved to Knoxville and released for commercial use, and channel 8 also could be allocated.

(i) Chattanooga, Tenn., is the 83d market. It has an operating VHF station on channel 12. It is also allocated channel 3, which is the subject of a comparative hearing which is awaiting final decision. Two construction permits for UHF stations in Chattanooga have been granted, but neither station has been built. This market can be made competitive by permitting the station on channel 9 at Rome, Ga., to move to Chattanooga.

(j) Bakersfield, Calif., is the 84th market. It has an operating VHF station on channel 10 with no other VHF channels allocated. A UHF station has been in operation at Bakersfield since August 21, 1953. No other UHF construction permits are outstanding. The Bakersfield market could be made competitive by adding channels 8 and 12, deleting the latter from Fresno and replacing it with a UHF channel.⁴

(k) Beaumont-Port Arthur, Tex., is the 90th market. It has an operating VHF station on channel 6. It is also allocated channel 4, which is the subject of a comparative hearing. A UHF station has been in operation in Beaumont since April 9, 1954. This market could be made competitive by the addition of channel 9 if channel 9 is moved from Lufkin, Tex., to Shreveport, La.

(l) Johnstown, Pa., is the 94th market. It has an operating VHF station on channel 6 with no other VHF channels allocated. A UHF station has been in operation at Johnstown since October 15, 1953. The Johnstown market could be made competitive by the addition of channels 3 and 8.

(m) Charlotte, N. C., is the 97th market. It has an operating VHF station on channel 3. It is also allocated channel 9, which is the subject of a comparative hearing, awaiting a final decision. A UHF station was in operation in Charlotte but was forced off the air on March 15, 1955. A third service could be provided for Charlotte by the addition of channel 11.

C. UHF only markets

There is another group of markets—those which at present have UHF stations only, but in which VHF channels are available for grants. In these markets grants on the VHF channels should be withheld pending a final decision in this proceeding. In those instances where grants have been made since the notice of proposed rulemaking in docket No. 11532, the grants should be set aside. The markets in the first 100 which fall in this category are Fresno, the 65th market, and Peoria, the 79th market.

Mr. JAHNCKE. The administrative changes which we recommend are set forth in appendix A to this statement.

The ABC plan is based on a combination of three principles: Deintermixture to create homogeneous UHF or VHF markets; move-ins or drop-ins of additional VHF channels with appropriate engineering safeguards to protect the quality of existing services; and the use of some VHF channels presently assigned to education.

Since these principles were the keystone of our proposals, ABC was shocked by the decision of the FCC in November 1955, denying deintermixture. Pursuant to this decision, the FCC continues to grant additional VHF stations in UHF markets despite the irreparable damage which these grants will do.

⁴ A grant was recently made on channel 12 at Fresno but the station has not been constructed.

Under the principles of ABC's proposal, detintermixture could be accomplished in markets such as New Orleans, Albany, Miami, Hartford, Fresno, Peoria, Baton Rouge, Springfield, Ill., to name a few of the more important ones.

The drop-in or move-in of additional VHF channels in accordance with the ABC proposals will enable many monopoly markets to become competitive. For example, additional VHF channels can be assigned to Providence, Louisville, Rochester, Syracuse, Dayton, and Oklahoma City, to mention some of the more important markets which are now restricted to two stations.

Although ABC's plan showed solutions only in the top 100 markets where the core of the problem exists, it is equally applicable to smaller markets. For example, in Louisville, Ky., the 32d market, we have proposed the addition of channel 7, which would be deleted from Evansville, Ind., the 111th market. An additional UHF station would be added in Evansville, making it an all-UHF market. Not only making it an all-UHF market, but maintaining it as a UHF market as of the moment. There is no VHF station in Evansville. It is doing fine. It should be permitted to continue in its present arrangement as an all-UHF area.

The third principle on which ABC's proposal rests is the reallocation to commercial use of some VHF channels now reserved for educational purposes.

In a letter dated December 14, 1955, from Mrs. Kate Hevner Mueller, chairman of the education committee of the American Association of University Women, addressed to the Secretary of the FCC, which has been introduced in this record, Mrs. Mueller states that the "major barrier" to the "development of a nationwide competitive system of television lies not in the continuation of reservations for educational television, but in developing UHF channels—a barrier which limits both educational and commercial television." We are in complete agreement with this statement. However, unlike Mrs. Mueller who is opposed to the use of any reserved VHF educational channels for commercial purposes, we favor such use where it is necessary to make monopoly and duopoly markets competitive.

Examples of monopoly markets which could be made competitive by the use of VHF educational channels are New Orleans, Birmingham, Tampa, Oklahoma City, Sacramento, Jacksonville, Knoxville, and Duluth.

The statement that there are only 10, as I recall, VHF assignments for educational use in the top 20 markets of the country shows conclusively, in my opinion, that there can be no educational system of a national nature without UHF. For example, in New York City, education is assigned a UHF channel. If we can't make UHF work, the largest market in the country will never have educational television. I submit this: That in a great many areas, for understandable reasons, the educational groups are not yet ready to utilize the reservations that have been made for them.

Why not, therefore, permit those VHF channels—which are gathering dust—permit them to be used for commercial purposes, which will further the general overall status of television. This will make an important contribution to the survival and growth of UHF, so that at some future date, when we have a single TV service and there won't be any difference between UHF and VHF, educational TV will be

the gainer—if you will lend-lease these VHF channels at this time to commercial TV where they are so urgently and immediately needed, as distinct from the future use of TV.

We don't deny the proper requirement of educational TV, but it is in the future; our urgent need is right now.

Senator POTTER. In other words, it is your statement that the VHF channels that are allocated for educational TV and are not being used, should be opened up for commercial use, with the understanding that when we secure a nationwide television system by the utilization of UHF, there will be channels available for all of our educational needs. Is that the essence of your statement?

Mr. JAHNCKE. That is correct, sir. Not only that, but during the interim I am certain that it would be awfully easy to find someone to operate such a VHF TV station with the agreement and understanding that a reasonable amount of time, as well as facilities be made available to the educators now, when they can't take on the whole job. Let somebody put up and spend all the money. They can still use the money right now. Take New Orleans—I think it is channel 8 that is assigned to education, and the terrain is perfect for UHF. Let channel 8 become a commercial—1 of 3 V's in that market right now.

Mr. Cox. Aren't they now building an educational station?

Mr. JAHNCKE. No, sir. It is my understanding they have finally gotten a group together and received contributions from various community groups—including, I believe, the present VHF operators—and have just secured a grant last month.

Mr. Cox. They have the construction permit.

Mr. JAHNCKE. The construction permit, I think, was issued in February 1956. Now if that is used, let's say, 5 years from now, when through a replacement of present sets, you have all-channel tuners well underway, it won't make much difference whether you give channel 8 back to the educators and take channel 20, for example, back for commercial use or vice versa. If you, by that time, have got an all-channel system well underway it will be a rather minor problem. Take either one you want.

Mr. Cox. If you never get the all-channel set, though, what becomes of educational TV in New Orleans? They are never going to be able to get conversion on educational programs.

Mr. JAHNCKE. What becomes of educational TV—it is just one more area of the failure of a nationwide system, or concept. The same thing will happen as happened in New York City.

Mr. Cox. Isn't it true that in each of these typical instances that you have set forth here where you recommend the release of an educational VHF reservation, that you also propose, as an alternative, the drop-in of a V as a possible solution, if that reservation cannot be made available?

Mr. JAHNCKE. I would like to look over the statement. There is the alternative of a move-in or drop-in of a V in New Orleans, in Oklahoma City, I am not sure about Birmingham.

I think at Tampa they drop in channel 10. Channel 3 is the educational in Tampa. I think channel 10 in Tampa would work; in Sacramento they could move in, if they wished to, the present channel 13 on the air assigned to Stockton. Otherwise, it would have to be the use of the educational reservation channel 6, in Sacramento.

In Jacksonville, yes, I think a drop-in would work there. In Knoxville, which is, may I say, my favorite example, the unused reservation of channel 2 for Sneedville, Tenn., could be moved to Knoxville. I can only assume it was assigned to Sneedville because it came out right on the engineering drawing board and because there is an educational institution there. I also assume that these channels are assigned by the FCC to serve people rather than any other concept.

Senator PORTER. We have an educational channel allocated in my State to a town of about 10,000, and the largest educational institution is a high school. It is allocated and, of course, not being used.

Mr. JAHNCKE. If there are enough channels left over, there is nothing wrong with that, sir. When you are dealing with the pressure of a very scarce national resource, it raises a question. The spectrum space in which all television channels operate represents a valuable natural resource. Unlike mineral or timber resources, however, its nonuse is complete waste and an irretrievable loss.

We have, therefore, suggested to the FCC that the time has come when reservations for educational use should be abolished and replaced by the system in standard broadcasting, under which there are no reservations and educational institutions apply on the same status as all other applicants. If an educational institution, after participation in a competitive hearing, received a television grant, it would have the right to operate on a commercial basis to the extent deemed necessary. This would enable many smaller educational institutions with limited financial resources to operate a television station.

Furthermore, a cursory glance at the channels reserved for educational use shows that many of them are in very small towns such as Amherst, Mass.; Hanover, N. H.; Oxford, Ohio; and Sneedville, Tenn., because these towns are the locations of educational institutions. In instances such as these the educator's needs would be as well served by campus television and the channels can be reallocated for more efficient use in large markets.

In television today there are too many artificial distinctions based on the frequency upon which a station operates. We have UHF as compared with VHF. When television started, we had low band VHF's as compared to high band VHF's. There are proposals now before the Commission which would create low-power VHF stations which would then be contrasted with high-power VHF stations. There is another proposal which would create the classification between horizontal antennas and vertical antennas on the receiving sets.

The ultimate objective of a workable allocation plan should be to eliminate all artificial categories of channels. There should be no more difference between UHF and VHF than there is between 540 and 1600 on the radio dial. From an engineering point of view it is completely practicable.

The objective, therefore, is a compatible television service. One area for corrective action is in the field of excise taxes. All who have testified on this subject agree that the cost disparity between all-channel receivers and VHF-only receivers should be eliminated by the reduction of excise tax on all-channel television receivers. ABC endorses this proposal as we did 2 years ago in the Potter hearings.

In summary, ABC suggests that a congressional mandate be issued to the FCC, either by a memorandum from this committee or by a

Senate resolution that the FCC take the following steps to insure a truly national competitive television service:

1. Issue its reallocation plan by June 1, 1956. We were invited on November 10 of last year to submit our suggestions and we were given 35 days to do it, which was ample because we had been studying it for a long time. I suggest that is a reasonable time period for the FCC.

2. Prevent additional VHF stations from going on the air in areas where deintermixture, to create predominantly UHF markets, has been proposed, until the reallocation plan has been issued and implemented.

3. Complete the processing of all pending applications, whose disposition would not be precluded by the foregoing, by September 1, 1956.

In conclusion, I would like to quote from my testimony 2 years ago in the Potter hearings, to you, sir.

The proposals made above are designed to speed the difficult period of transition during which competitive facilities will become available. When that occurs, ABC will take its competitive chances in the market place of public good with full confidence in its ability to originate and develop a television service second to none. ABC believes that it has a television-program service comparable in quality to those of its competitors and desires only a fair opportunity to demonstrate that fact.

In conclusion, ABC again desires to point out that it is now an independent network because of the FCC's recognition 13 years ago that the public interest would not be served by concentration of radio stations under the dominance and control of a single network organization.

For reasons unrelated to the merits of its television service, ABC finds itself handicapped due to the lack of competitive television outlets.

The competitive advantages enjoyed by NBC and CBS are basically attributed to denial of fair opportunity for access to the market, rather than to the superiority of their program offerings.

If we can't get our programs into a market, we are not even judged; we are not even in the game.

This committee, therefore, is faced with an extraordinary decision of policy, for determinations reached now in the present period of television development will determine the availability and quality of competitive service in the future.

There may be those who will oppose any remedial action by this committee or by the Federal Communications Commission on the ground that it might deprive those who were first in the field of the fruits of their resourcefulness and labors.

The fruits currently enjoyed in limited-facilities communities are not as much the result of individual initiative or superior ability as they are of VHF channel scarcities and the artificial freeze imposed between 1948 and 1952.

It is one thing to be the first in the field where competitors are free to follow. It is another thing to enjoy a clear field because competitors are enjoined from pursuit.

That was my concluding statement when I testified during the Potter hearings 2 years ago. That is ABC's conclusion today.

Senator POTTER. Mr. Cox?

Mr. Cox. Are these drop-in V's that you propose in your suggestion to be fully competitive VHF stations, or are they to operate with limited power, reduced antenna heights, or directional antenna?

Mr. JAHNCKE. As I understand, they would be fully competitive. I would like Mr. Marx to speak to that.

Mr. MARX. It has been proposed in certain of the markets where they are not fully competitive with existing stations, but they do not take advantage of any future engineering developments, such as what might be proved in the use of directional antennas, for example, which would then make them equally competitive.

Mr. Cox. They would, however, provide stations which ABC would find it desirable to affiliate with?

Mr. MARX. They would provide class A service over the city and over the area to be served, but they would not, however, provide the large area of certain existing VHF stations going beyond, for example, protections afforded even within the sixth report.

Mr. Cox. This would materially, however, you feel, improve ABC's chances to develop competitively with the other two networks.

Mr. MARX. It is a question of getting into the market or not getting in at all.

Mr. Cox. In certain of the proposals to this committee it is still suggested that in, I believe, 12 of the top 100 markets the third facility would be a U station in competition with 2 V's. I take it it is your definite opinion that that is not anywhere near a competitive facility, or one which would permit ABC to enter into that market on anything like an equal footing; is that correct?

Mr. MARX. Well, our proposal does not consider a U station in the top 100 markets to be competitive with the V station.

That is true.

Mr. Cox. As I understand it, Mr. Jahncke, your analysis is that there are two primary problems facing the FCC, the industry, and the committee: Those are the provision of a minimum of three competitive facilities in the top markets; and, secondly, the preservation for the long-time growth of television of the UHF part of the spectrum.

Now I think that the proposals that you are making here, and some proposals that others have made, hold out the hope of perhaps achieving the first. Now with respect, however, to guaranteeing any kind of a future for UHF, it seems to me that your proposal boils down to a suggestion for the long-range development of all-channel tuners through the elimination of the excise tax on such receivers, and the deintermixture of certain specified areas.

Do you feel that, first of all, deintermixture can be effected on a wide enough basis to serve as an effective present holding operation for UHF; and that using that as a base, in time, the excise-tax proposal, if adopted alone, would accomplish the long-range result of making all sets able to receive all channels?

Mr. JAHNCKE. Yes. I believe there has been previous testimony that the turnover of TV sets is approximately 5 years. If that is true, you can project in 5 years, if they started making all-channel tuners now, at 5 years from now you would be over the hump of the problem. You wouldn't have 100 percent, but you would be well on your way. The majority of the sets would be all-channel tuners.

I think that both the excise tax, as well as the establishment of sufficient UHF areas, would be the two incentives to manufacturers to make all-channel tuners.

Mr. Cox. Do you think that some substantial good would be accomplished if the excise tax were eliminated only from all-channel color sets, with the replacement of sets that the advent of color may bring on?

Mr. JAHNCKE. I certainly think that the time to put out the fire is before it starts. There are 37 million black-and-white sets in this country and, as I understand it, about 50,000 color receivers. Therefore, color isn't here yet. It is several years away. If any arrange-

ment can be made so that as color comes, as it will inevitably, it will arrive only in an all-channel atmosphere, that, like the excise-tax device, would insure that the problem is not perpetuated; but I was very alarmed to read the testimony of Mr. Hoffman here recently, in which he said that although the great bulk of the few color sets that have been produced to date were all-channel receivers, that the projection as a result of a questionnaire he sent out, as I recall, said that only about 11 percent from here out were going to be equipped for all-channel reception, which is discouraging. It means that here we have the classic pattern beginning all over again.

I will admit at the beginning is the time to do it. How you get—how you persuade them to make all-channel receivers for color, I don't know. That is the desirable thing to do. That is the ultimate, last, necessary step to complete the solution, without which the first two steps are useless.

Mr. Cox. And the maintenance in the meanwhile of at least certain areas in which UHF is given reasonable assurance of continued existence is necessary, first, to provide a market for such sets, even without excise tax or other incentives, and, secondly, to promote the development of the better sets and better transmitters, which Mr. Marx was talking about awhile ago. Is that your position?

Mr. JAHNCKE. Let me give you an example. Take the capital district of New York—Albany. A year ago there were 2 UHF stations and 1 VHF station on the air. One of the UHF's ceased operation. They have testified publicly, if they could be assured that the channel 10 drop-in which the FCC recently approved in Vail Mills, which is in effect the Albany area—if they were sure that wouldn't happen, and, therefore, instead of UHF having to fight multiple VHF competition, if they could receive assurance that the only VHF in the area would be the GE station, channel 6, they would go back to the air. They would take their chances.

I am happy to report that, within the month, ABC has negotiated an affiliation with this station, which will go back on the air—July 1—I think perhaps the first UHF to go back on the air.

Mr. Cox. That is WTRI?

Mr. JAHNCKE. WTRI. They will be the ABC affiliate in the capital district and they will have 2 UHF stations and 1 V. That is not an easy road for UHF, but in that atmosphere with network support, those 2 UHF stations will survive, but if you permit channel 10, a second VHF signal, to come into that area, they will not.

As far as WTRI going back on the air, if there is going to be a question about channel 10, I understand they will also apply for it, as will everybody else in the area. We say a UHF will survive, these 2 U's against 1 V in a market as large as Albany.

I don't think you can project it down the line to smaller points, but we say there is even a more complete solution for the Albany market. You can make it an all-V market or make it an all-U market. Proposal has been made that, if permissive moves are allowed by the FCC under change of rules, perhaps GE might request to move their channel 6 to Syracuse, which is also in New York, and request a substitution of a UHF channel for their operation in Schenectady. That would make it an all-UHF market, which would be even better, without hurting or penalizing GE for its pioneering in that area. That is another possibility, but it is important, certainly, to create as many

areas like Albany where UHF can survive, because only through the maintenance of a lot of UHF areas will the manufacturers be interested in serving the UHF market with receivers and developing them.

Senator POTTER. Mr. Jahnce, what would you do about areas that are already mixed—would it be your recommendation that the Commission should deintermix the mixed markets?

Mr. JAHNCKE. Yes, sir; I think they should.

Senator POTTER. How would that be done?

Mr. JAHNCKE. Whether it is practical or not, I am not sure. You deintermix a market by 1 of 2 processes, sir. You either take the VHF out or take the UHF out. The consideration there is—the problem there is the automatic penalty to the person, say, suppose you have an area where you decide you can eliminate the V. The problem is to take away from a VHF pioneer his dominant channel, his class A position, even if you give him a UHF and take the position that at least he has competitive parity. You have taken something away from him because you have taken away his special advantage he has enjoyed since he has been a V. This is a problem.

Senator POTTER. It has been suggested.

Mr. JAHNCKE. In theory you can argue no one should object just to have an opportunity to compete equally. I can assure you that is all ABC wants. I am speaking about the theory.

Senator POTTER. I know. It has been suggested that there be a time limit involved—say 7 years, maybe longer—to allow a person to convert. If he has a V, to convert to a U, or maybe the other way around if they want to make it a U market and this happens to be a V in that market—allow him a period of time to make the conversion, not so much in the interest of the owner of the station as in the interest of the public who have money invested in sets, to allow them to make replacement of their sets with all-channel tuners. That has been suggested.

Mr. JAHNCKE. It seems reasonable, in any such arrangement, that the present VHF operator be required to put a UHF transmitter on the air promptly, and also he be permitted, as well as required, to operate both UHF and VHF during a period—any period of time is arbitrary. I don't know. It seems to me 7 years is a long time, but there certainly should be that period, and certainly it shouldn't be unreasonable. The VHF station in that community, I am sure, has made enough money in the past 5 years to afford it.

Senator POTTER. I want to thank you for your comprehensive statement and your views. I hope we do not have another 2 years without any improvement in the situation.

Mr. JAHNCKE. I hope this is my last appearance for ABC, sir.

(At this point Senator Potter inserted into the record 37 questions for which Senator Bricker wanted Mr. Moore and Dr. Turner to provide the answers. These questions are set forth in the subsequent volume on network practices in connection with Mr. Moore's testimony.)

Senator POTTER. We will stand in recess until 10 o'clock tomorrow morning, and we will meet in room 457. CBS will be the first witness tomorrow morning.

(Whereupon, at 5:03 p. m., the committee adjourned until 10 a. m., Tuesday, March 27, 1956.)

TELEVISION INQUIRY (UHF-VHF Allocations Problem)

TUESDAY, MARCH 27, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 a. m., in room 457, Senate Office Building, Washington, D. C.

Present: Senators Pastore (presiding), Potter (later presiding).
Senator PASTORE. The hearing will come to order.

We have a letter here for the record. It is a letter from Mr. George C. McConaughy, Chairman of the Federal Communications Commission, dated March 23.

(The letter referred to is as follows:)

FEDERAL COMMUNICATIONS COMMISSION,
Washington, D. C., March 23, 1956.

HON. WARREN G. MAGNUSON,
*United States Senate,
Washington, D. C.*

DEAR SENATOR MAGNUSON: This is in reply to your letter of March 16, 1956, enclosing a letter from Mr. Richard S. Salant dated March 7, 1956, relative to my testimony before the Interstate and Foreign Commerce Committee on February 21, 1956, concerning the charges of the telephone companies for intercity television program transmission. Mr. Salant's letter refers to a statement made by me before the committee to the effect that these charges "are very apt to go up." Specifically you inquire as to whether any hearings are scheduled or contemplated with respect to such charges.

My testimony referred to was not intended to mean that the Commission had reached any conclusions as to the reasonableness of the rates of the telephone companies for television program transmission service. In the testimony immediately preceding my statement, certain informal studies of the cost of furnishing television transmission service made by American Telephone & Telegraph Co. were mentioned. The most recent of these studies, which were completed last August and which reflect the situation as of the end of 1954, on its face purports to show that A. T. & T. is earning considerably less return on television transmission service than on its communication services as a whole. Under such circumstances, if the validity of A. T. & T.'s study be assumed, there would be little likelihood of reduced rates. It was this thought that my statement was intended to convey.

The Commission cannot, of course, make any firm conclusions as to the validity of A. T. & T.'s study and the results indicated thereby without a more thorough investigation of that study. Since the completion of the study, the Commission's staff has been engaged in an informal inquiry as to various aspects of the study. It is expected that the results of the staff's inquiry will be submitted to the Commission for its consideration in the near future. Whether or not formal hearings should be instituted will depend to a large degree on the information developed by this inquiry.

With respect to the further statement in my testimony alluded to by Mr. Salant, to the effect that the television industry has made a close study of the

rates, I did not intend to convey that the committee of which Mr. Salant is chairman had reached any conclusion as to the propriety of the rates. My statement was only intended to indicate that we were aware that his committee also had this matter under consideration and had met with representatives of A. T. & T. with respect thereto.

Sincerely yours,

GEORGE C. MCCONNAUGHEY, *Chairman.*¹

Senator PASTORE. Our first witness this morning is Mr. William Lodge, vice president of Columbia Broadcasting System. Mr. Lodge, before you begin, can you give us some kind of an indication as to how long you might be?

Mr. LODGE. Yes; my statement is about 30 pages long and I would judge that would possibly go an hour to an hour and a half.

Senator PASTORE. Then we have Mr. Heffernan, vice president, National Broadcasting Co. Is he in the room?

Mr. ERVIN. He is not here now. I would estimate his statement would take about an hour.

Senator PASTORE. The reason I am asking these questions, we are on the constitutional amendment on limited time today. We start immediately after the morning hour, which might mean around 11 or 11:15. We are too far removed from the Senate Chamber for us to get into a serious hearing here that might be a prolonged one unless we get closer to that Chamber. Many of us, of course, want to hear these debates.

We will proceed with Mr. Lodge. If this is going to take an hour or an hour and a half, and unless Mr. Heffernan is interesting in listening to this hearing, if there isn't anything else to do, we will recess at 12 o'clock. I dislike to have busy people wait around here 3 or 4 hours for their turn. I merely make that suggestion so you will know how the Chair feels.

All right, Mr. Lodge.

STATEMENT OF WILLIAM B. LODGE, VICE PRESIDENT IN CHARGE OF ENGINEERING, CBS TELEVISION DIVISION, COLUMBIA BROADCASTING SYSTEM, INC.; ACCOMPANIED BY RICHARD S. SALANT, VICE PRESIDENT, CBS, INC., AND SIDNEY A. ALEXANDER, CBS ECONOMIC ADVISER

Mr. LODGE. Mr. Chairman and members of the committee, my name is William B. Lodge. Because, as will be seen, many of the issues before you are primarily economic, I have with me today Sidney Alexander, CBS economic adviser. I am vice president in charge of engineering of the CBS television division, the division of the Columbia Broadcasting System which is engaged in television broadcasting—both through operation of four television stations owned by CBS, including a UHF station in Milwaukee, and through operation of a television network. I have bachelor of science and master of science degrees in electrical engineering from Massachusetts Institute of Technology. I am a fellow of the Institute of Radio Engineers and of the Society of Motion Picture and Television Engineers.

Except for a period during World War II, I have been continuously employed by CBS since 1931, and have spent much of that time on

¹Mr. McConnaughey's testimony referred to in this letter appears at p. 181, pt. I, of these hearings. For Mr. Salant's letter, see p. 805.

problems concerning coverage and frequency allocations. My earlier experience had to do with radio (AM and FM) broadcasting, but since 1946 I have been most concerned with television broadcasting. My work in the past 10 years has included planning nationwide coverage by the CBS television network, determining the service areas of individual television stations, design of transmitting and receiving antennas, and choice of television transmitter locations. I work closely with CBS television audience research specialists and have had an opportunity to compare engineering contours with actual viewing. My experience includes personal investigations of VHF and UHF reception conditions in many parts of the country.

I am here to present the views of CBS concerning the perplexing problem of allocations. I shall try to present these views as simply and briefly as possible. You have before you, and I am submitting for the record, the CBS proposals and comments and our reply comments which have recently been filed by us in the current FCC allocation proceeding (docket No. 11532); these formal documents set out our views in far greater technical detail.¹

The problem which confronts you and the FCC, as well as the entire television industry, is of extraordinary complexity. It has, quite understandably, given rise to many conflicting views, solutions, claims, and counterclaims. The conflicting proposals and contentions include risks of forcing either of two extreme courses: On the one hand, the course of continued inaction, or, on the other hand, the course of yielding to the tremendous pressures and taking ill-advised action for the sake of doing something.

CBS believes that neither of these courses is inevitable. We believe that action should be taken by the FCC and that the opportunity is presented to improve substantially the present allocation plan without threatening the whole structure of television. As we stated in our proposals and comments in the FCC allocation proceeding:

CBS believes that experience under the sixth report and order has demonstrated an urgent need for revision of the present allocation plan in order to meet more satisfactorily the imperative present demands for additional competitive facilities while at the same time allowing for expansion of television services in the future and avoiding any significant reduction of existing services.

Senator PASTORE. I do not want to anticipate you in any way, Mr. Lodge, but the thing that concerns me at this very point is this: Apparently the FCC has already made a decision to go forward with the spirit of the sixth report and order. Now are you going to discuss the inadvisability of that anywhere along in your statement, or do you want to comment on a direct question that I might propound to you now.

Mr. LODGE. I would be glad to answer your question.

Senator PASTORE. In view of what you have said up to this juncture, unless I am anticipating it—I do not want to do that because it prolongs the hearing—are you prepared to give an opinion as to what you think of the decision on the part of the FCC already taken, to go forward with the sixth report and order and await this general survey and study that they are going to make, and which is going to take about 6 or 7 months, in order to determine what they should do as a permanent solution?

¹ The information referred to will be retained in the committee's files.

Mr. LODGE. Yes; though I discuss it later, my response to your question is that we recommend that there are certain changes that can be made within the confines of the sixth report and order, that probably they would not be in position to make until they have completed their study, though.

Senator PASTORE. What do you suggest that they do in the meantime; that they suspend the granting of these assignments, or do you feel that they can go forward and then determine later on what they ought to do—or don't you want to comment on that phase yet?

Mr. LODGE. We have not categorically stated that. We are definitely not of the opinion they should hold up action in the future and have a freeze in the meantime.

Mr. COX. Not?

Mr. LODGE. Not.

Senator PASTORE. The only way, sometimes, I can get a specific answer to a specific question is to cite a specific case. Are you familiar with the situation in Hartford?

Mr. LODGE. Yes.

Senator PASTORE. Now there was a representative of the ABC here yesterday who made the statement that he did not think that channel 3 ought to be granted to Hartford in the meantime; that possibly they ought to go someplace else. I do not want to get into that phase of where it ought to go, but along the lines of the question I have already asked you now, do you feel that it would be inadvisable at this time to go forward and to begin making grants and mixing these UHF areas with VHF, and then expect to unscramble it later on? If you are prepared to make a comment on that, if you do not feel you should—

Mr. LODGE. My comment is along further in my testimony.

I do touch on that further along.

Senator PASTORE. All right.

Mr. LODGE. But while emphasizing our view that there is need for revision of the present allocations, I should equally emphasize what must be exceedingly apparent to this committee—what indeed, may be the clearest point in this whole complex of issues—that there is no solution which will, or can, please everybody and hurt no one. To quote the statement of Dr. Stanton, president of CBS, in a letter to the Chairman of the FCC:

At this stage of television's development in the United States—with a public investment of \$15.6 billion and 453 stations on the air serving 36 million receivers—we believe it is imperative to recognize that there is no panacea which can increase the opportunities for a truly competitive nationwide television service without hurting someone to some degree. It is our opinion that many previous attempts to remedy the sixth report have foundered on the failure to recognize this basic fact. The result has been a continuing search to solve the problems which have developed since the sixth report by trying to find some formula under which everyone would get something and no one would lose anything. This is wishful thinking. We are convinced that no such formula exists.

It is clear, therefore, that the decisions which must be made are hard ones. Principles which are wholly desirable in the abstract may, and often do, result in irreconcilably conflicting allocation plans when reduced to practice. Indeed, one of the most dangerous games that can be played in this field is to state and accept general principles—with which, on their face, no man of good will could disagree—without

demonstrating exactly what happens when these principles are reduced to a specific nationwide allocation plan.

I noticed yesterday you asked a question very much on that point, Senator.

For what I hope to make clear as we get down to specifics in this statement, is that principles are meaningless, useless and often misleading, until their application is precisely determined. In this field of allocations, everything has a price. To get A, you must give up B—or sometimes, B, C, and D. I cannot overemphasize, therefore, the importance of testing the general by the specific. Until you see the entire practical application of a particular proposal, with all of its side effects, you cannot tell whether you can afford the structure you are planning—or, indeed, whether it will work at all.

Thus, and it is this lesson which above all must be learned before going forward with an allocation plan, it will not do simply to state principles, no matter what their surface attraction. These principles can only be tested by translating them, precisely and explicitly, in terms not only of who gets what, but even more important because in this field, as I've noted, you cannot get something for nothing—who loses what.

One more generality before I get to a specific analysis of the problems and the various plans or proposals which have been advanced: In determining the practicality of any plan, and finding its price, the primary touchstone must be the public. Harsh as it may sound, the first test against which to evaluate the several proposals cannot be a handful, or even a hundred, station operators or potential station operators, and their economic survival. Rather, in testing any plan, the questions must be, How does it affect the services to the public? Do they get more or less? Are they being forced to give up what they have demonstrated they like, and what they have gone to considerable lengths to get, in exchange for no service at all, or less service, or a different service which somebody has decided they ought to like, or ought to have.

We believe that some of the proposals which have been advanced here, and which appear on their face so attractive, are in fact fatally defective because they have ignored these basic considerations. They are rationalizations built out of the difficulties of individual station operators; and in their understandable anxiety to improve their own unhappy position, they have overlooked the public and the cost to the public of their proposals.

So much for generalities. I turn now to a more specific discussion of the problems and the proposals.

THE NATURE OF THE PROBLEM

Before we seek to solve the allocation problem, it is well first to try to isolate and define its precise nature. What the present difficulties are can, perhaps, best be defined by determining first just what the purposes, the objectives, of a television allocation plan should be; second, how far the current television pattern of service has gone in achieving those objectives; and third, the reasons why those objectives have not been met. Only after such a diagnosis is it possible intelligently to remedy whatever it is that ails the system.

So first to the question of the objectives of a television plan. They have been well summarized by the FCC itself in its recent notice of proposed rulemaking:

- (a) At least one service to all areas.
- (b) At least one station in the largest possible number of communities.
- (c) Multiple services in as many communities as possible to provide program choice and to facilitate competition.

If these objectives are thus properly stated—and there has been no serious quarrel with them—we come to the second question: How nearly has each been achieved? The sixth report did, on paper, realize these objectives in this order of priority. By its allocation table issued in the sixth report and order, the FCC provided for assignments of television channels which theoretically would have (a) given a signal to virtually all areas in the United States; (b) given 1,240 United States communities their own stations; and (c) provided the opportunity for at least four competing nationwide television networks and many hundreds of independent stations in large and small markets, as well.

But, in fact, television has not worked out that way. Our television system as it has developed has attained only the first of these objectives. It has fallen short of the other two.

Objective (a), at least one signal to all areas, has been substantially achieved, since service has been brought to over 96 percent of the families in the United States. The small population currently unserved will increasingly come to be served by the erection of satellites and translators which give promise of bringing television service to those sparsely populated areas that cannot support program-originating television stations.

Objective (b), community stations, is being attained in only about 350 of the 1,240 cities in the continental United States to which channels have been assigned.

Objective (c), multiplicity of services, has only partially been achieved. About 84 percent of the families of the United States live in television markets which can, in fact, support 3 or more equally competitive television stations, but only 63 percent of the families live in markets which have been assigned 3 or more equally competitive stations under the sixth report. We estimate that the 100 leading television markets, which have been assigned 263 competitive commercial television channels, could actually support at least 400 stations. True, in these markets there are enough channels for 400 stations, but many are unused because they are not competitive—a subject to which I will turn in a moment.

And so, having determined the purposes of an allocation plan, and the respects in which the current plan has, in fact, proven to be defective, we can go to our third inquiry: Why have the second and third objectives not been met? Why has there been such a gap between the allocation plan's achievement of the second and third objectives on paper and its failings in practice?

The answer would seem to be obvious: Had all the channels assigned by the sixth report been taken up for use by stations, there would be no gap, the objectives would have been achieved, and none of us would be here today. The stark fact, however, is that the channels have not been taken up. The next question, therefore, which we must answer before we can seek solutions is: Why have they not been taken up?

Again, the answer to this question seems simple and clear: The channels have not been taken up, or where taken up have been abandoned, because they were not economically supportable. And it is here that we come to the critical questions, the answers to which must chart the course to any solutions: What are the factors which create this problem of economic unsupportability, and which of these factors can and should be alleviated by a revised allocation plan? For it is not enough to assign the channels where they would fulfill the objectives if they are taken up; it is necessary to assign them where they will be taken up and be supported. After all, the allocation problem now is primarily an economic one, secondarily a political one, and only in a limited sense an engineering one.

There are three principal, but separate, factors that render actual or potential stations incapable, in current circumstances, of operating at a profit. One factor is the competitive disadvantage which a UHF station suffers as against a VHF station. After all the testimony that this committee has heard I need not elaborate on the competitive inequality of a UHF station with respect to a VHF station. It is a problem both of conversion and of signal propagation.

A second factor militating against profitability is the disadvantage suffered by a station which is located in a smaller city whose viewers also receive service from other television stations in a larger neighboring city.

The third factor leading toward unprofitability occurs where the market area which the signal can reach is, in any event, too small to support a station.

Some stations suffer from a combination of these disabilities. Bridgeport, on which so much attention has been focused here, is an example of a station which suffers severely from the combination of the first two factors. Nevertheless, each of these is a separate and distinct source of economic trouble. One is the problem of UHF intermixture, the second that of the overshadowed city, the third that of the submarginal market. They are frequently, but should not be, confused.

Two of these factors—the second and third—are inherent characteristics of the geography of the location of population in the United States, in relation to the coverage areas of television stations. Many of the 1,240 communities in the United States to which television assignments have been made could not support stations in the immediate future. Of course, a day may come when it will be possible to operate a television station profitably in many communities that cannot now support one. But this is a problem which does not yield to a revised allocation table. To the extent that many of the 1,240 communities were assigned channels for the distant rather than for the immediate future, the failure of the channels to go on the air immediately should not be counted as a problem requiring solution right now.

And so there remains, insofar as a modified allocations plan is concerned, the problem of remedying those defects which are the result of the intermixture of UHF and VHF channel assignments in the same or overlapping markets. There is insufficient multiplicity of services (objective (c)) because the UHF channels assigned to the leading markets are unable to compete with the VHF channels in those markets. Similarly, the opportunity of smaller communities served with good signals from outside cities to have their own tele-

vision stations (objective (b)) is usually limited because they are assigned UHF channels which would have to compete against VHF signals from the larger cities.

An allocation problem exists today, therefore, principally because, as hindsight has proved, a basic mistake has been made in the nationwide pattern of television assignments. That mistake is the intermixture of UHF and VHF channel assignments in the same or overlapping television markets. While the mistake is clearer now than when the sixth report was issued, and while, as of that time, it could not be said the Commission was wholly unreasonable in its hopes and expectations, I must point out that CBS, as well as others in the industry, consistently warned against intermixture throughout the formative period of our national television system. See exhibit 1, attached herewith: It is a brief summary of our consistent opposition to intermixture during the formative period of the present allocation plan.

Exhibit 1 is a loose sheet—of which there are three—contained in the same envelope as my statement. It is a brief chronological summary of our opposition to intermixture. I won't go through and read all the quotes.

Senator PASTORE. I think it ought to be inserted in the record at this point.

(The information referred to is as follows:)

CHRONOLOGICAL SUMMARY OF CBS OPPOSITION TO INTERMIXTURE

December 1948: “* * * should both VHF and UHF assignments be planned for the same city?” (Lodge, FCC Engineering Conference).

August 1949: “* * * the proposed table of allocation * * * is unsound to the extent that it establishes widespread mixing of VHF and UHF channels in individual communities” (CBS statement re FCC Report 49-948).

September 1949: “* * * An increase in the number of cities which would have both VHF and UHF television transmitters would not appear to be in the public interest * * * the projected UHF stations would be required to operate at a serious competitive disadvantage with the VHF stations. * * *” (CBS comments, docket No. 8736 et al.).

October 1950: “* * * UHF television stations are capable of rendering a real public service, but our present limited experience indicates that stations assigned to these frequencies should be expected to compete most effectively with other UHF stations in the same area. * * * Columbia believes that mixing of UHF and VHF channels in individual communities should be avoided wherever possible” (Lodge, in docket No. 8736 et al.).

September 1951: “It is generally agreed, and the Commission itself has recognized, that for a considerable period, perhaps 5 years, perhaps more, a commercial UHF station cannot compete on anything like an equal basis with a commercial VHF station in the same community” (Ream, in docket No. 8736 et al.).

June 1954: “We are persuaded that the events since the lifting of the freeze confirm the correctness of our view, expressed in 1950-52, that the UHF portion of the spectrum should not be used in such a way as to require it to compete with the VHF portion of the spectrum in the same markets” (Stanton, before Potter Senate subcommittee).

December 1955: “There is now, however, ample evidence that, normally, UHF stations are not competitively equal to VHF stations” (CBS comments, docket No. 11532).

Mr. LODGE. I point this out not because “I told you so” helps the problem or gives us any satisfaction. I point it out only because there have been some implications that the networks are somehow responsible for the present situation. The accurate fact is that the real culprits are the physical laws governing signal propagation and the expensive conversion required to receive UHF signals.

CONFLICTING OBJECTIVES

Thus, I believe we have answered the three threshold questions: (1) What are the objectives of an allocation system; (2) how nearly have these objectives been met by the current plan; and (3) to the extent that it has failed, why has it failed? By thus isolating and identifying the disease, I believe that I can now go on to discuss and evaluate the possible remedies. But before doing so, we must face another hard but inescapable fact: Given limited spectrum space and the competitive disadvantage of UHF, these three objectives, each so wholly important, appropriate, and desirable, are, in considerable degree, mutually exclusive and conflicting.

Remedies that serve to achieve one of them will usually be found to injure another. Any evaluation of a proposed action to meet the allocation problem, therefore, involves exceedingly hard choices—a delicate balancing of its contribution toward one objective as against any loss to the others, as well as the cost of adoption of the proposed action.

Senator PASTORE. At this point, Mr. Lodge—this may be a rather unfair question to you, particularly, but I am going to ask it anyway, and if you feel it isn't within your purview to answer it, you don't have to: Much of the complaint that has been made by some of the UHF operators is the fact that they have a contract with a network and the relationship seems to be fine. Then a VHF assignment is made in that community, and their complaint is that they lose their contract with the network, and the network picks up a contract with the new VHF assignment.

The first question I ask you: Would you agree with that statement?

Mr. LODGE. I have heard that; yes.

Senator PASTORE. Is the statement true?

Mr. LODGE. It is true in some cases. We have dropped UHF's and picked up VHF's.

Senator PASTORE. I think it is important for the record for you to tell us why.

Mr. LODGE. I think I can answer that.

Senator PASTORE. Yes. I think you should. I think we ought to have an answer from your point of view.

Mr. LODGE. I don't want to pretend to give all the business reasons, but I can give you the engineering reasons.

Senator PASTORE. I think some of the business reasons are important, too. I mean, if we have any witnesses here who can testify to them we will be glad to hear them, because when any charges or counter-charges are made against the networks, I think we ought to get their side of the question too.

Mr. LODGE. The answer is a very simple one. We believe we would serve a larger audience and deliver more homes to an advertiser by making such a shift, just in attempting to improve the coverage of our network.

Mr. Cox. Do you believe in the case of Fresno that by dropping affiliation with KJEO, and taking an affiliation with KFRE, you will actually provide service to people who do not now receive television service—in substantial numbers?

Mr. LODGE. I do.

Mr. Cox. That is, areas which are white, in the true sense that they receive no signals, either from Fresno or from outside areas?

Mr. LODGE. Yes. I am sure we will serve homes with KFRE that we do not serve presently.

Mr. Cox. Can you tell us to what extent?

Mr. LODGE. I don't have the quantitative number of homes, but my recollection is that there would be a strip, a ring, which in theory is about 20 miles in extent; in other words, our service area would be extended to the extent that we can theorize on paper by about 20 miles in radius, but in actual practice, particularly in the coastal side of the California Valley, there are many rugged declivities in which there are homes—living in river bottoms—who I am sure now fail to get UHF at all, and who will get the new VHF station.

Mr. Cox. Are your estimates as to added coverage based upon predicted coverage for the present UHF station and predicted coverage for the VHF station, under FCC engineering standards, or are they based upon actual measurements of present UHF service?

Mr. LODGE. They are based upon the sum total of our best judgment of what our service is at the present time and would be after the VHF is built. Obviously, we have no measured information on the VHF because it still is not on the air. So I have to make my appraisal of how the service will compare from the station not yet on the air with the one that is now on the air; and based on all the information we have, we will improve and increase the number of homes that we serve.

Mr. Cox. I am not sure you answered part of my question.

Mr. LODGE. I am sorry if I didn't. I tried to.

Mr. Cox. That was as to whether or not this estimate that you extend your service 20 miles, is that beyond measured coverage of the present UHF station?

Mr. LODGE. I do not believe we have a measured survey on KJEO, so it would not be based upon a measured contour of either station since, as I said, the V is not on the air, and I do not believe we have a measured contour of KJEO. It would be an estimate to project, with the best information we have, the extent to which the service area would be expanded.

Mr. Cox. Are your calculations of service areas, where you lack actual measurements, based on standards which give you a wider coverage than is obtained under FCC calculations?

Mr. LODGE. In some cases they are wider; in many cases they are not as wide as those of the FCC's standards, because we have found that in practice they do not match what we have found to be the exact natural pattern of listening. I can give you an example.

Senator PASTORE. Well, before you go any further, Mr. Lodge, let's face it: Every operator of every station and every network, academically, is interested in the public interest. We start on that score; but from a practical point of view, every operator and every network is in the business to make profits, which is a legitimate objective. I am not being critical, and whether or not you are right, at least you are making your new contracts with the VHF stations because you think it is more profitable to do so. Am I right?

Mr. LODGE. We think we will serve a larger audience, and that that, in the long run, is desirable.

Senator PASTORE. I am trying to get away from academics.

Mr. LODGE. Sure. We want to be the best network.

Senator PASTORE. Where you can get the best deal?

Mr. LODGE. I don't know. We want to serve more people than our competitor.

Senator PASTORE. Let me change that way of putting the question. In other words, you think it is better from an economic point of view for CBS to make a contract with a new VHF station, as against renewing an existing contract with a UHF station, because you feel that it will service more people and it will bring a better economic relationship between the two parties in the new contract.

Mr. LODGE. I do know about the last part of your question, and I am not trying to avoid it, but we certainly feel we will serve more people that way.

Mr. Cox. That will bring more advertising revenues to you in competition with another network or with the local station in that area?

Mr. LODGE. It is a very competitive business. We would like to do the best we can in opposition to our—

Senator PASTORE. I want a categorical answer on this. I think we are all being too cagey on this. I understand it. I am not critical. The big question is why, when a VHF assignment is made—and I think this is important for the members of Congress that have to decide these questions. I think we should get truthful answers; not that I am saying anyone is giving false testimony, don't get me wrong on that—but I think we should have direct answers. The reason why the networks are making contracts with the new VHF assignments is because they think it is better for them to do it that way, economically and otherwise, and let's face it. I think we ought to get direct answers on it—

Mr. LODGE. Well—

Senator PASTORE. Because the UHF stations come in and say they are being pushed around—are they being pushed around? In other words, if the tables were reversed, would the UHF operators do the same things themselves?

Mr. LODGE. I think they would.

Mr. Cox. Have you had any complaints as to the service that has heretofore been afforded by the UHF station in Fresno? That is, within the limits of the propagation characteristics of its channel, has it provided a good TV service?

Mr. LODGE. I personally know of no letters from the public, if that is what you mean, complaining of poor service.

Mr. Cox. Has it achieved substantial coverage within the outer limits of the range of its signal?

Mr. LODGE. The data that I have are not very complete as to the outer range. Within Fresno and its immediate environs, there is good reception on UHF.

Mr. Cox. Do they get a good signal into Merced?

Mr. LODGE. I have only hearsay comments on that, which indicate that it is marginal in Merced and that some people get good service and others do not get snow-free service on UHF.

Senator PASTORE. May I pursue this a little further, Mr. Lodge?

How would the public interest be affected in the event that the Congress allowed authority to the FCC to interfere in this liberality

on the part of the networks in changing from UHF contracts to VHF contracts in a particular locality?

Mr. LODGE. I am afraid I can't answer that question, sir. Mr. Salant might be able to.

Mr. SALANT. Sir—

Senator PASTORE. Do you understand my question?

Mr. SALANT. Yes. This is a subject which we plan to deal with rather comprehensively in the last phase of these hearings dealing with network practices. We will then discuss in full the whole issue of our criteria in affiliating with stations: Why we affiliate with some stations, why we don't affiliate with others. There is a fixed policy and pattern which we will describe in full at that time.

Senator PASTORE. All right. That satisfies me. I think that the record ought to be made clear on that, because one will get the impression sometimes in listening to some of these operators that maybe we ought to interfere in that sphere. Now the question I asked for the record is how will that affect the public interest one way or the other?

Mr. SALANT. We will address ourselves specifically to that question.

Senator PASTORE. I think that is a very important phase of it.

Mr. SALANT. Yes, sir.

Senator PASTORE. You were on page 10.

Mr. LODGE. Three main factors cause the objectives to come into conflict. The first, and the most important is the fact that a UHF station at full power usually has a coverage area substantially smaller than a VHF station at the same location. Consequently, those solutions which involve the substitution of UHF for VHF service in a particular area in order either to promote community stations or multiplicity of services will usually involve some reduction in the total area served—thus impairing objective (a)—at least one service to all.

The second factor leading to conflict of objectives is the physical fact that when a new station is dropped in among stations assigned by the sixth report its area of interference will generally greatly exceed its area of service. Consequently, the use of such drop-ins for community television stations will frequently reduce the multiplicity of service (objective (c)) and possibly the number of families receiving at least one signal (objective (a)).

The third important basis of conflict among the objectives is the scarcity of VHF channels. If a VHF channel is available for assignment in any area, its use for the community station objective will generally preclude its use for the multiplicity objective, and vice versa.

With these conflicts in mind, let us now examine the various solutions proposed, to see how they serve or disserve the objectives of our national television policy, and at what cost.

PROPOSED SOLUTIONS

Many proposals submitted to the FCC and described in testimony before this committee aim at specific changes in particular markets. The cumulative effect of these proposals, plus similar ones that would be forthcoming if these were adopted, would lead to a general modification of the basic structure of the allocation system as laid out in the sixth report and order. Other proposals have attacked the prob-

lems in greater generality. All these proposed solutions can, I believe, be summarized in three broad groups.

1. Deintermixture;
2. VHF drop-ins on present VHF channels;
3. New VHF channels.

I shall consider each of these groups of proposed solutions in turn.

DEINTERMIXTURE

Since the present allocation problem largely arises from intermixture, it might seem that the most obvious remedy would be to eliminate intermixture by a procedure that has come to be called deintermixture.

Senator PASTORE. May I interrupt you, please? This is a little bit far afield from the present point that you are discussing, but yesterday—and I am directing my question now to Mr. Salant—Mr. Jahneke, in testifying before the committee, in his remarks yesterday on page 7 made this statement:

This committee should consider interim regulation of VHF stations in monopoly and duopoly markets by a variation of the plan suggested by Dr. DuMont in the Potter hearings 2 years ago. This would require—

this is the important part of it—

this would require VHF stations in a market where there are less than 3 competitive outlets to share their service equally among the 3 networks.

I should like to have a comment—not now, but later on—from CBS and NBC on that point.

Mr. LODGE (resuming). That procedure (deintermixture) involves the shift of VHF station assignments in certain television markets to UHF so that the markets concerned will have only UHF stations competing with each other. The cancellation of the VHF assignments will usually permit additional VHF assignments elsewhere.

Just how far deintermixture might be pushed depends on the extent to which we are willing to incur its considerable cost to the public in terms both of dollars for set and antenna conversion and of service loss to fringe areas which can be reached by VHF signals but not by UHF signals. Let us consider in turn various degrees of deintermixture from the most modest to the most extreme, and assess the extent to which each serves or disserves the objectives of the allocation plan. I shall also try to indicate the dollar cost to the public of conversion under each plan considered.

In making this evaluation of various deintermixture plans, a fundamental fact is the difference in the coverage of VHF and UHF stations. In general, UHF gives less coverage than VHF. Just how much smaller the service area of a UHF station will be as compared with that of a VHF station depends upon the local conditions governing radio wave propagation, principally the terrain. In some localities, Florida for example, the two types of signal may be fairly nearly equal in service range. In other areas, where conditions are less favorable, the radius of coverage of the UHF station may in some directions be a small fraction of that of the VHF station. As a broad general average, I would judge that while a full power VHF station can be expected to have a service radius of at least 60 and frequently more than 75 miles, a UHF station at full power will do well to have

a service radius of 35 miles and very well indeed to have one of 50 miles. Translated into terms of area, this means that, on the average, a VHF station may serve 2 to 4 times the area of a UHF station. But UHF has another drawback: If the terrain is rough, or if there are large buildings or other high objects casting a shadow, a UHF station will have many local pockets of poor service creating a "swiss cheese" effect in its coverage pattern.

In any actual case of the substitution of UHF for VHF service at a market center, some of the lost service area can be made up by the appearance of new stations in outlying cities. But the area that loses service may frequently not have a population large enough to support a station by itself, even though it may represent a substantial addition to the population served by the VHF station at the market center.

Mr. Cox. In that connection, Mr. Lodge, you suggest that a VHF station may serve 2 to 4 times the area of the UHF station. Now in many areas, because of population concentration, the difference in number of homes served would be substantially less—isn't that true?

Mr. LODGE. On two factors: First, because you might be penetrating into other markets well served from within, and also because the population density tends to fall off as one goes into rural areas. But I would like to add, however, that the shadow areas—and you have them even in rolling terrain such as surrounding Washington, New York or Providence—that back of the hills, if a person lives 200 feet down behind a rolling hill, his service from UHF would be quite inferior, so the loss is not confined just to a theoretical range.

Mr. Cox. We were advised, I think yesterday, that it was agreed in the Hartford deintermixture case that the issue of white areas was not involved.

Mr. LODGE. I believe that was based more on theory than on fact.

Senator PASTORE. How are you going to overcome this argument on intermixture if that is the case? If you happen to be behind one of these rolling hills and you won't get UHF so well, then how are you going to argue against a VHF being assigned by the Federal Communications Commission, if they take the position "We feel that the public interest requires our assignment of a VHF station to give them a better quality of signal"? How are you going to argue against that?

Mr. LODGE. You get right down to a choice of choosing the lesser of several evils: A limited number of competitive assignments, on the one hand, or equal competition, and a few people would lose service in achieving that.

Senator PASTORE. Would you make the categorical statement that unless something is done about deintermixture, it might well mean, in time, the complete disappearance of UHF from the TV scene?

Mr. LODGE. No; I don't believe that would necessarily happen, unless there are additional VHF channels made available. I believe that the pockets of UHF operation—such as Scranton, Wilkes-Barre, Youngstown, South Bend, and there are others—where you have UHF operating successfully today, and where they are not suffering from competition from VHF—I see no reason, as long as the channels remain available to those stations, why they cannot continue to give satisfactory service to the people now receiving it.

Mr. Cox. Would that provide a sufficient economic base for the future development of better transmitting and receiving equipment in

the UHF area, and would it in any sense stimulate the production on a nationwide basis of all-channel receivers, which would eventually, perhaps, contribute to ability to intermix allocations?

Mr. LODGE. I don't believe those pockets would stimulate nationwide distribution of all-channel receivers. I don't pretend to be an expert on manufacturing, as to how many potential buyers you have to have to keep the market flowing with UHF receivers, but I feel quite sure that if there is a hundred thousand or two hundred thousand potential receiver sales in UHF markets, that there are plenty of manufacturers who would be glad to try to sell those sets. In other words, there will be UHF sets continued to be available even for this smaller number of markets.

Senator PASTORE. But following it a step further, we are not actually talking about a nationwide competitive TV system, though, are we, insofar as UHF is concerned? What we are actually talking about is either the establishment, or the maintenance, of a UHF island, so to speak.

Mr. LODGE. That, I believe, is the trend that is going on now. There has been a great deal of talk about the excise tax. That could well be a tool which, if used, would encourage the spread of all-channel receivers.

Mr. Cox. If you have UHF continuing in existence only in Wilkes-Barre, Youngstown, South Bend, and the areas where there are, as I understand it, not even any allocations of V channels to compete with them, how is that ever going to permit UHF to function as a part of the development of a nationwide competitive TV system? Aren't you going to be limited for all time, unless additional V channels are obtained, to the number of multiple services in the number of markets which can be accommodated by the present 12 VHF channels?

Mr. LODGE. I believe there are some improvements that can be made in the utilization of the present 12 channels, but I agree with you that if UHF is limited to, let us say Scranton and the other cities, it is not going to have people buying UHF receivers here in Washington, D. C.

Senator PASTORE. May I interrupt at this point?

This is off the record.

(Discussion off the record.)

Senator PASTORE. Let me call a recess until 11:20, and if in the meantime Senator Potter comes in he can resume the hearings before that time. Is that satisfactory to the witnesses? I hate to do this to you, but I have to go to this presentation.

(Short recess.)

Senator POTTER (presiding). Mr. Lodge, we have a free substitution rule here in the Senate. [Laughter.]

Mr. LODGE. The two-platoon system.

Senator POTTER. I personally regret that I had another committee responsibility that kept me from being here when you began your statement, but you may proceed now.

Mr. Cox. I have a question, Senator.

Senator POTTER. Yes.

Mr. Cox. The point I am trying to make, Mr. Lodge, is that if UHF can provide a satisfactory service only in the three communities you mentioned, and maybe a couple of more—

Mr. LODGE. There are more than that. I didn't list them completely.

Mr. COX. That means that for the balance of the country we can look only to VHF to provide us with a competitive nationwide TV system—is that right?

Mr. LODGE. Unless something is done to encourage the sale of UHF receivers.

Mr. COX. Which you say will not come on any nationwide basis just from the maintenance of these limited markets.

Mr. LODGE. I would think not, unless the excise tax change is made.

Mr. COX. Why is UHF able to provide a satisfactory service in Scranton and Youngstown and not in other areas? Aren't those areas rather rugged terrain?

Mr. LODGE. You have to say what satisfactory is. It is satisfactory to the people who live there, and the people who are beyond the range of the stations do not know that they are missing something.

Mr. COX. Isn't it true that the service that you talk about losing through deintermixture is largely service that has not yet been received?

Mr. LODGE. No. If you deintermixed, that would mean taking away some VHF service that had already been established there, and in that case, you would really hear about it.

Mr. COX. That isn't true in Hartford, Madison, Peoria, Evansville, Fresno, and a number of other areas, is it?

Mr. LODGE. If the stations are not yet on the air. That is correct.

Mr. COX. And with respect to the Fresno situation where you said you thought you were going to serve additional areas, isn't it true that signals from Salinas and Bakersfield do come into the marginal coverage area of the Fresno stations?

Mr. LODGE. There is service coming in from outside of a marginal nature, but it is not as good as the high-grade quality picture that could be achieved from the local Fresno V.

Mr. COX. If UHF is not going to be a satisfactory service in certain areas, why is it that CBS is buying a UHF station at Hartford? Aren't you going to have a problem giving satisfactory service there to viewers, if there are hills and shadowed areas?

Mr. LODGE. Again, we feel it can serve a substantial number of homes with a good signal there. True, we would like to serve more, but the number that we can serve is a substantial number.

Senator POTTER. How much power will you have in your new UHF station in Hartford?

Mr. LODGE. The application we have filed is to continue the power at present, as I recall, around 250 kilowatts ERP.

Senator POTTER. Do you have any plans for increasing your power to the maximum amount?

Mr. LODGE. We have not filed such an application with the FCC in the initial stages. Normally, in the development of the station I imagine we would.

Senator POTTER. Do you agree with the testimony of Mr. Moore, or his engineering representative, that the engineering required for a UHF station can be developed to bring in a signal—

Mr. COX. Mr. Jahncke—

Senator POTTER. Yes; Mr. Jahncke's engineer.

Mr. COX. Mr. Marx.

Senator POTTER. Which is comparable to VHF?

Mr. LODGE. I am afraid I cannot agree with him on that. Where the service is good, near the center and out for a certain distance, they will be quite comparable; but there will come a time, both for the people who live down in valleys and behind hills, and as you get out behind the curvature of the earth, 30, 40, 50, 60 miles out, where I know of no way of making them equal.

Senator POTTER. Even with increased power?

Mr. LODGE. Even with increased power. If you want to presume towers that are 3 or 4 thousand feet high, then, theoretically, it could be done; but given the same tower heights, I know of no way of making them equal.

Senator POTTER. Then it is your position that UHF is an inferior signal?

Mr. LODGE. Its signal is just as good as the VHF within confined areas. It cannot equal VHF in service range.

Senator POTTER. What would be the maximum range under maximum power?

Mr. LODGE. It depends entirely on the terrain. Before you came in I mentioned Florida as a case that is extremely favorable to UHF, and under those conditions, many people, and I among others, have seen a good signal 50 and 60 miles away from a UHF station. You mentioned Hartford. I would like to use that as an example on the other side. The town of Waterbury is 19 miles from the transmitter of the station we have been discussing, and which we are hoping to purchase—and in Waterbury, 19 miles from that station, you cannot find a picture—19 miles away. So you have the two extremes: 60 miles, pretty good in flat territory; 19 miles away you can't even find a picture in another condition.

Mr. Cox. Are those people without TV service, or do they get service from other stations?

Mr. LODGE. They get marginal service from New York, 75 miles away, rather than service 19 miles away just because of the terrain and the difficulties of UHF bending over the hilltops.

Mr. Cox. If you think you can provide a substantial service in Hartford, then that same service could be provided by UHF stations in any area that might be deintermixed to all UHF service?

Mr. LODGE. Yes. The problem, of course, becomes whether or not in that restricted fringe there is enough population to support other stations so that you will replace the lost fringe service with new stations.

Mr. Cox. I would like to raise this question: Is there some danger that in trying to get the maximum coverage from one signal—to get a service to everyone, even in outlying areas—we will, in insisting on carrying out all of the provisions of the sixth report, effectively kill off any substantial UHF development, so that for all time the people of this country are going to suffer under the limitations of a TV system that can only grow to a certain point, and then has to stop.

Mr. LODGE. Definitely. That is what I meant earlier when I said there was a basic conflict between the three objectives—the objective of getting competition on the one hand, and the objective of getting one signal throughout the country on the other.

Mr. Cox. Would you care to say which of these conflicting objectives you think is the more important—to get one service, at all costs,

to everybody, or to maintain some flexibility and room for growth in a TV system so that the 85 percent of the people who may be within reach of larger communities can have multiple services?

Mr. LODGE. I think that has to be answered two ways. One, if we were starting from scratch—and the other starting in the year 1956. I do touch on this further on in my testimony.

Mr. Cox. Well, fine.

Mr. LODGE. I am not trying to avoid answering your question now.

Mr. Cox. Wait and cover it then.

Mr. LODGE. The conclusion, just to anticipate it, is that it is a little late for deintermixture; that it is too difficult to take away from people the service they have.

Mr. Cox. This, however, would apply only to deintermixture which involves the deletion of existing VHF stations?

Mr. LODGE. Yes.

Senator POTTER. You may continue, sir.

Mr. LODGE. Keeping this in mind, let us now turn, gentlemen, to the consideration of the most modest general deintermixture plan. That may be termed nondisruptive deintermixture. By that I mean deintermixture that does not involve taking any operating VHF service off the air but merely preventing new VHF services from going on the air where UHF has a good chance of surviving in their absence. By means of nondisruptive deintermixture in a few markets, a few more islands of UHF operations may be preserved. In most cases these would involve UHF stations surviving in a somewhat unequal competition with one VHF station. Experience to date indicates that, in general, UHF stations can survive in competition with one VHF. They have much greater trouble surviving in competition with 2 VHF's, and except in extraordinary circumstances virtually no chance against 3 VHF's.

Mr. Cox. Isn't the trouble that they have in surviving in competition with 2 VHF's such that only about 3 stations are presently surviving and, as Mr. Jahncke pointed out yesterday, they are hanging on by the skin of their teeth?

Mr. LODGE. It is darned tough.

Mr. Cox. It is so tough as to be almost impossible unless something is done?

Mr. LODGE. I would agree.

Mr. Cox. Now, in connection with this nondisruptive deintermixture you are talking about, are you familiar with the plan which was outlined to the committee by Mr. Storer?

Mr. LODGE. That was the term I used of a general nature to describe the Storer plan and several others of a similar nature.

Mr. Cox. Substantially this plan—either Mr. Storer's or any other that doesn't involve the elimination of existing V stations—is simply an effort to extend these islands that you talk about in Youngstown and Wilkes-Barre into other communities, so that whatever good could come from that would be increased?

Mr. LODGE. I think "preserve" is a better word than "extend." He was not intending to open up new markets that did not now have UHF.

Mr. Cox. I think that is a point well taken, but it would, in effect, give continuity to a number of these areas which otherwise are going to go by the board.

Mr. LODGE. That is right. That was the purpose of his plan as I understand it.

It is a close decision whether the sixth report should be so modified as to prevent additional VHF stations going on the air where such a bar would preserve UHF islands. In my judgment, it depends on what other action is being taken on a larger scale to meet the allocation problem. Nondisruptive deintermixture by itself would apply to too few markets to make a significant contribution to the overall problem. Let us next consider deintermixture with a more systematic basis for selecting markets to be deintermixed, as part of a broader attack on the allocation problem.

Mr. Cox. How many would be needed?

Mr. LODGE. More than this would provide in any event.

Mr. Cox. Mr. Storer estimated, I think, that the areas which he was discussing included 20 million people and 4 million UHF sets, and I think both Mr. Chamberlain of GE and Mr. Engstrom of RCA indicated that in their opinion that much preservation, for all time, of UHF would provide a substantial incentive to manufacturers to develop improved transmitting and receiving equipment.

Mr. LODGE. Well, I don't think that is the problem so much as how do you get UHF receivers in all homes.

Mr. Cox. Don't you start by trying to keep some homes where everybody has to buy a UHF receiver? That is one way to keep UHF stations in operation, by providing them with receivers?

Mr. LODGE. But that makes no improvement over what we have today. That merely preserves the status quo.

Mr. Cox. But isn't there some possibility that preserving the status quo, as far as UHF is concerned, will be better than permitting the present trend to continue, which will substantially destroy the status quo?

Mr. LODGE. Well, first of all, we have to go back to the 3 objectives which I spelled out 5 or 6 pages back, which is national service.

Mr. Cox. Local service?

Mr. LODGE. A number of signals available in each area, and local service. Now, Mr. Storer's plan, constructive though it is, does not cut into the local station problem one bit. It makes very, very little progress there, and if you gentlemen are anxious to have that third objective—if you want the local station to grow and become a factor in service to the public—there has to be some way to get receivers into all of the towns that these little stations would like to operate in.

Mr. Cox. Isn't it true, though, that local service can develop on the margin of an area that is served by all UHF stations, or with only one V, much better than it can on the margin of an area served by all V stations, because there are far more UHF channels that can be allocated for such local services as they become economically supportable?

Mr. LODGE. That was the very point I had in mind, because there are very few cases in point like that—towns where you would get local stations under such a plan. You see it doesn't go to Bridgeport, to Trenton, Asbury Park—I mention these along later on—it doesn't open up towns.

Mr. Cox. The only solution that would make possible the development of a local station in those areas is that you find some means to

put a V channel in those areas, on whatever basis it may be. Isn't that true?

Mr. LODGE. Well, you could theorize, and I certainly don't advocate shifting everything to UHF. That would also do it, however.

Mr. Cox. In other words, the only way a local station can ever exist in Bridgeport is to be a V.

Mr. LODGE. Or to have all receivers with the UHF band in them. Under those conditions the ability to tune in is no longer a hardship to the local station.

Mr. Cox. You have to either have some device that is going to produce all-channel sets on a nationwide basis or you have to have some sort of a V channel in a market that is overshadowed by a multiple-service V market?

Mr. LODGE. I think that is right.

As an example of a minimum systematic deintermixture plan combined with a broader measure to remedy the allocation problem, we might imagine a deintermixture plan aimed at providing 3 or more competitive stations in those 16 of the 100 leading television markets which could not be assigned 3 or more competitive channels in a controlled VHF drop-in plan, CBS plan I, which I shall describe shortly. I am not proposing this deintermixture plan, but am merely using it here as a convenient example to illustrate the nature and effects of a minimum systematic deintermixture plan.

Such a deintermixture plan would involve a shift to UHF of 27 VHF channels in 16 markets. Twenty-four of these VHF channels are already occupied by operating stations. These 16 markets contain about 4 million families; about 3 million of them already have sets, 2½ million have VHF only. The extra cost of conversion to these families would probably be of the order of \$125 million, and more than 300,000 people would be deprived of all television service because of the lower UHF coverage compared to VHF.

This is the responsibility, Mr. Cox, you and I were discussing a moment ago.

Mr. Cox. In that connection, I take it that in these 16 markets you are talking about there are also already UHF stations on the air?

Mr. LODGE. Yes; there are.

Mr. Cox. How many of them—do you know?

Mr. LODGE. No; I don't. I would have to go back to the chart, unless Mr. Alexander has it.

Mr. ALEXANDER. I don't have the total. You can count them up from this. They are listed.

Mr. LODGE. Can you tell me what the cities are?

Mr. ALEXANDER. Yes. The ones in table III, the ones that have on the right-hand side the statement saying "UHF."

Mr. Cox. That is on page III-1.

Mr. LODGE. I have it here if you would like them in the record.

Mr. Cox. That would be San Diego.

Mr. LODGE. That is right.

Mr. Cox. Hartford.

Mr. ALEXANDER. That is right.

Senator POTTER. What page is that?

Mr. ALEXANDER. Page 3 dash 2—Roman III, Arabic 2.

Mr. Cox. Columbus, Augusta, Topeka, Louisville, Baton Rouge, Kalamazoo-Grand Rapids, Rochester, Charlotte, Greensboro, Raleigh, Dayton, Toledo, Erie, and Providence?

Mr. LODGE. That is correct. I want it thoroughly understood we are not proposing such a plan. We merely use it for illustrative purposes to see what would happen.

Mr. Cox. You selected those markets not because they are particularly apt for all UHF development, but because they are the ones in which you could not find enough V allocations to provide three competitive V services?

Mr. LODGE. Purely an arbitrary choice to see how much you accomplish with a little bit of deintermixture.

Mr. Cox. Do you know—when you say that there would be more than 300,000 people deprived of TV service—that in the areas from which V service would be withdrawn, there are 300,000 people not receiving signals from any other communities?

Mr. LODGE. I am sorry. I did not get your question.

Mr. Cox. That is, is your estimate of loss of service to 300,000 people simply based on recalculating the coverage of a UHF station in Hartford as compared to the theoretical coverage of the V, without regard to whether they are getting some kind of V service from New York, from New Haven, or a U service from some other community?

Mr. LODGE. No. These 300,000 people are those who would get no other service at all, because of the shrinkage of the total service.

Mr. Cox. That is, you look not only to the service coverage from this market, but all surrounding markets?

Mr. LODGE. All surrounding markets as well. This is new white area, to use the common phrase. Even this plan would bring relatively little relief to overshadowed community stations, however.

Mr. Cox. Some of them, at least, are in fairly populous areas where there may be satellite communities which in time could support their own TV stations?

Mr. LODGE. Yes; but again, only 26 out of 800.

Mr. ALEXANDER. If I may respond to that one: In these particular cases, however, these 26 mostly do not lie in communities that would be good prospects for their local television stations. Perhaps the easiest way to indicate that is that only three of them have ever been applied for, and, as you know, early in the days of the sixth report applications were made for most of the communities that had any prospects at all, because at that time it wasn't so clearly recognized under what disadvantages UHF stations would operate. So that, just as a note on these 26, I would say we can furnish you the list if you like, but they are not very large.

(The list was furnished later and is as follows:)

COLUMBIA BROADCASTING SYSTEM

OFFICE COMMUNICATION

October 25, 1956

To: Mr. Salant.

From: Mr. Blank.

Re the 26 communities that would be freed from overshadowing VHF competition if 16 of the 100 leading markets were deintermixed.

Reference: Page 1817 Magnuson committee hearings.

The attached table lists the 26 communities which were referred to on page 1817 of the Senate committee hearings. These communities are communities which have been assigned only UHF stations, but which lie within the 16 television markets which Mr. Lodge was hypothetically considering for deintermixture at the point in the Senate hearings referred to. If that deintermixture, which was not recommended by Mr. Lodge, but was merely being analyzed

for purposes of illustration, were actually to be carried out, these 26 communities, to which 29 UHF channels have been allocated, would be relieved of VHF competition.

DAVID M. BLANK.

CBS-Ec/Ad
October 24, 1956

Overshadowed communities with UHF channel assignments that would be relieved of VHF competition if 16 of the 100 leading television markets were deintermixed (Re Magnuson committee transcript, p. 1817)

[Population (1950 census), in thousands]

Overshadowed communities:		Overshadowed communities—Con.	
Albermarle, N. C.	11.8	High Point, N. C.	40.0
Angola, Ind.	5.1	Junction City, Kans.	13.5
Burlington, N. C.	24.6	Kannapolis, N. C.	28.4
Campbellsville, Ky.	3.5	Lima, Ohio	50.2
Danville, Ky.	8.7	Manhattan, Kans.	19.0
Defiance, Ohio	11.3	Meadville, Pa.	19.0
Elberton, Ga.	6.8	Muskegon, Mich.	48.4
Elizabethtown, Ky.	5.8	Salisbury, N. C.	20.1
Elkhart, Ind.	35.6	Sanford, N. C.	10.0
Emporia, Kans.	15.7	Shamokin, Pa.	16.9
Fayetteville, N. C.	34.7	Sunbury, Pa.	15.6
Findlay, Ohio	23.8	Statesville, N. C.	16.9
Hazleton, Pa.	35.5	Tiffin, Ohio	19.0

Mr. Cox. What would be their average population?

Mr. ALEXANDER. I wouldn't be able to judge that now, but we could work that up.

Mr. Cox. Can you tell us what is the smallest community to which the FCC made an allocation in the sixth report?

Mr. ALEXANDER. The smallest in the sixth report?

Mr. LODGE. I believe now it was Goldfield, Nev., which had 267 population.

Mr. Cox. What would it be for areas in the East and Midwest, for example?

Mr. ALEXANDER. I would have to look that up. In general, the cities follow where the radio stations were, and they go to pretty small communities—in the few thousands.

Mr. Cox. All right, Mr. Lodge.

Mr. LODGE. So it will be seen that a minimum systematic deintermixture plan accomplishes relatively little at a fairly high cost. Let us next consider a more sweeping deintermixture proposal. An example of such a plan is that proposed by DuMont in September 1949. Its target was 4 competitive channels in as many as possible of the 326 leading television markets.

At the time DuMont proposed this plan, it involved a shift of 12 operating VHF stations to UHF. Its adoption now would require, in the 100 leading television markets alone, the shift of 53 VHF stations to UHF, 41 of which are already on the air. In the entire 326 cities specified in the DuMont plan, 155 VHF station assignments would have to be shifted to UHF; 105 of these are already on the air.

In the 100 leading television markets alone, almost 7 million families live in those television markets which would lose their VHF service and switch to UHF under the DuMont plan. About 4.7 million of these families now have television receivers, and about 3.6 million of these have VHF-only receivers. The cost of set and antenna conversion to these 3.6 million families would be of the order of \$200 million.

While I have not calculated the population which would lose service entirely under the DuMont plan, because of the shorter range of service of UHF as compared with VHF, I believe it would be about a million people.

This would mean going completely white, and not merely deprived of home service.

This plan would clearly serve objective (c) since it would provide for four nationwide television services. It was designed to do just this. But despite extensive use of deintermixture, however, this plan still falls short of solving many of the difficult UHF overshadowed community problems. For example, Bridgeport, Trenton, New Brunswick, Akron, Asbury Park, Atlantic City, Reading, Easton, Allentown, Bethlehem, and Worcester, to choose some of the prominent examples, would still be UHF-only cities overshadowed by VHF's, as they are at present. Indeed, the ranks of the overshadowed UHF cities would be joined, under the DuMont plan, by a number of other cities presently assigned VHF stations, such as Providence, New Haven, Wilmington, Del., Johnstown, and many others.

We must conclude, therefore, that while this plan would make a major improvement toward the multiple-service objective, it would make a relatively small contribution to the community-station objective. Further, it would be detrimental to the national-coverage objective to the extent of losing service to about 1 million people, and its dollar cost to the public for receiver conversion would be about \$200 million. And this does not include the costs of conversion of established VHF stations, which may be estimated at \$30 million, nor their losses from business disruption.

If deintermixture is to satisfy both the multiplicity of service and community objectives, it would have to be even more massive than the DuMont plan—extreme as that plan is in the light of today's circumstances. A deintermixture plan that would permit all of the 1,240 communities assigned channels under the sixth report to be assigned either VHF channels or UHF channels free from competition of VHF, would have to consist of a relatively few islands of VHF in a general sea of UHF. Under such a plan, in order to avoid intermixture at the fringes, the VHF community stations in the outlying fringes of VHF stations in large market centers would have to have their power limited so that their service areas would not expand VHF islands into UHF areas. Otherwise, the outlying community VHF stations would themselves overshadow UHF communities.

I have not worked out the details of such a plan, nor has anyone else to my knowledge. It would, I am sure, involve the loss of service to several millions of people. The cost of conversion to the public would probably be of the order of a billion dollars. So even though such a plan could possibly be devised to meet the multiplicity and community objectives, I believe it would be too injurious to the first-priority objective of at least one service to all areas, and it would involve too high a cost of conversion to the public.

As the extreme case of deintermixture, there has been some talk of shifting the whole television system to UHF. I must say that I see no sense to that talk at this date. If we are considering an ideal allocation system, one using 12 VHF and 70 UHF channels can be designed far superior to one using 70 UHF channels alone.

Mr. Cox. Is that true with respect to any of the objectives other than the first one? I mean, can a system using only 70 UHF channels provide multiple services and permit the development of community stations as they become economically supportable, as well as 1 with 12 V and 70 U?

Mr. LODGE. I would say probably on that score it could, although the service of any one of the individual stations would probably be smaller than many would be under the other system, but you would lose tremendously in terms of people who would have no TV service whatsoever.

Mr. Cox. Because if stations are only going to be located in large communities of a certain minimum size, the only way you can get maximum reach from those points is through the use of a V?

Mr. LODGE. I use the concept it is a byproduct—that the people who are picked up in the fringe of the big city VHF station are picked up more or less as a byproduct of the service to the big city, and those are the people who would lose out. There are millions of them involved.

Furthermore, the transition to an all-UHF system would cost the public and broadcasters between \$1½ billion and \$2½ billion. It would result in a total loss of service to about 8 million people, even after allowing for more stations to go on the air after the shift to UHF. Since a superior system can be obtained at less cost in money and loss of service, it does not seem sensible to me to consider an all-UHF system now.

Senator POTTER. Mr. Lodge, in your consideration of the loss of service to people by the transition from VHF to UHF, are you speaking of UHF stations as they operate today, or are you speaking of maximum power for the UHF stations?

Mr. LODGE. I am assuming that they improve their power to the full that is allowed at the present time, and I would say in connection with the proposal that they might use five times as much power, that that in practice makes very little difference on the total service. It would not change the answer appreciably.

Mr. Cox. Does it at least serve to eliminate this "Swiss cheese" effect you are talking about?

Mr. LODGE. Again, if you should look at a TV screen with a picture you think is snowy and have that station increase its power by a factor of 5, you certainly would not consider the improvement in service great. A factor of 5 to 1 in power sounds big to the layman; to one used to looking at the picture on the TV screen it is not very impressive.

Mr. Cox. Would you agree with Mr. Marx that some of this high power has not been achieved in a desirable way, in that they have used minimum-power generators or powerplants and high-gain antennas, and they could have gotten a more effective signal if they had used higher power in the first place?

Mr. LODGE. I think some of the UHF stations have had some of their service area poorly served because of overshooting people who might live close to the base of the tower; yes.

Mr. Cox. Is the answer to getting more complete and more satisfactory service within their areas of general coverage to be found in the development of more sensitive receivers rather than higher power, then?

Mr. LODGE. Again, I am afraid that the facts of life are that within the foreseeable improvements in receiver redesign that the amount of improvement cannot eliminate the "swiss cheese" effect completely.

Senator POTTER. I think one of the problems the committee has been faced with has been the conflicting testimony concerning the engineering potential of UHF. Now, if it is an inferior television band as compared with VHF, I think consideration would have to be based upon the inferior quality of the service. If it is a band which can give as good reception and coverage, with certain engineering designs, why I think that is a question that the committee or the Commission, whoever makes decisions in this field, will have to resolve. But we have had engineers here that would tell us that we can look forward in the future to revolutionary things in the field of transmission and receiving, which would make the UHF band competitive and comparable to the VHF band. You state that you don't believe that is so.

Mr. LODGE. I think any engineer who denies the possibility of future progress and blinds himself to that is a very poor engineer, but I don't think that just hope and wishful thinking is going to overcome certain basic physical limitations that mother nature built into the propagation laws of radio signals. I see no way of overcoming completely the deficiency of UHF with regard to VHF.

Mr. Cox. In that connection, just for the record, CBS manufactures receivers but does not manufacture transmitters; is that correct?

Mr. LODGE. That is correct.

Senator POTTER. You may continue, Mr. Lodge.

Mr. LODGE. Thus, it seems clear that any systematic large-scale deintermixture would involve such a tremendous cost to the public in dollars and in loss of service that its adoption cannot be seriously considered.

The members of the committee have already experienced, in contemplating the choice between Hartford and Providence for the location of a single VHF station, some of the difficulties of arriving at a decision involving conflicting interests of different cities and States. Any large-scale deintermixture plan would offer dozens or even hundreds of such problems. While some of these choices might be dictated by overriding engineering considerations, an arbitrary choice would frequently be involved. One market would have to lose its VHF services and be shifted to all-UHF, and another would gain some VHF services. From an engineering standpoint, it might be immaterial which market was to be UHF and which VHF, but the political problems and repercussions could reach staggering proportions.

One can easily imagine the reaction of VHF set owners in deintermixed markets when they learn that their present sets will no longer receive a usable signal; that in order to continue to receive television they will have to purchase a converter and UHF antenna at an installed cost of \$50 to \$100 per home. One can also imagine the reaction of those millions of people who find that they will be unable to receive television at all. This picture of the public reaction to deintermixture has led me to dismiss large-scale systematic deintermixture from consideration as a practical possibility at this late stage of television's development.

In short, various degrees of systematic deintermixture offer various degrees of solution of the multiplicity and community-station objective, with corresponding sacrifice of the nationwide coverage objective, and with corresponding dollar costs of conversion. But as of 1956, deintermixture does not appear to be a practical solution if only because of the public opposition that could be expected.

Senator POTTER. When you speak of existing services, are you also speaking of existing UHF service?

Mr. LODGE. These were drop-ins on VHF and I did not intend to cover the economic effects on the UHF's that were on the air. This was the technical interference effects to the VHF's.

Senator POTTER. Just to existing VHF stations?

Mr. LODGE. Yes.

Senator POTTER. Of course, by VHF drop-ins, you would further complicate the problem of saving the UHF band?

Mr. LODGE. Yes. I was trying to confine myself more to the technical area, but certainly I know there are economic effects to the use.

VHF DROP-INS

Let us, then, next examine those proposed solutions which involve dropping new VHF assignments in among the assignments of the sixth report, by departing from the separation standards of that report. We shall consider the extent to which they serve or injure the objectives of our national television policy.

How many stations can be dropped in, where they can be located, and what restrictions need be imposed on the power, directivity or polarization of their signals depend on what interference to the services authorized in the sixth order is to be allowed. We may accordingly consider first those proposals for drop-ins under which substantial interference would be caused to existing services. Then we may consider drop-in proposals under which existing services would not be impaired.

DROP-INS AT THE EXPENSE OF EXISTING SERVICES

There are a number of proposals for VHF drop-ins which involve substantial interference to the television services provided for in the sixth report. The proposals of Hometown Television, Inc., and Mul-laney & Associates are among these. While some of these plans are vague and therefore hard to evaluate, there is no doubt that VHF drop-ins could be assigned to many cities in need of VHF assignments. The cost in loss of service may be illustrated by an example furnished by the president of Hometown Television, Inc.

Mr. Merryman showed you an exhibit¹ of a VHF drop-in added at the center of a 170-mile equilateral triangle, at each apex of which there was located a full-power low-band television station. That exhibit showed a loss of some 3,770 square miles of television service to obtain about 310 square miles of new service for the drop-in station. This exhibit failed to take into account the fact that the drop-in station would not be offset to one of the 3 existing stations under the present 3-frequency offset system.

¹ See second exhibit facing p. 466.

Again, Senator Potter, you came in a little late, but there was attached an exhibit.

Senator POTTER. This is the exhibit?

Mr. LODGE. This is the exhibit; yes.² I will read my testimony and return to the exhibit in a moment.

If this is taken into account, exhibit 2, attached, shows what would happen. The loss of service from the existing stations as a result of the drop-in would increase to 6,720 or to 9,750 square miles, depending on whether the offset carrier operation used was a 3-frequency, used today, or a 4-frequency method. The service area of the drop-in station under these circumstances would be either 150 square miles or 285 square miles, depending on the offset method used. Consequently, for every square mile of service added by the drop-in station, 35 to 40 square miles of existing service would be destroyed.

I think maybe an exhibit like this is a little confusing, so if we can just look at it, I will indicate that the white area at the center, in both case I and case II, indicates the service that would be left to the existing VIII station after the effects of the drop-in had taken place. The double crosshatched area is the new interference that would be caused by the drop-in, and the more lightly and outer crosshatched area is that which is occasioned mutually between the stations at the present time.

You will see that right in the center of the triangle is the very little white area enclosed by a black circle, with "drop-in" written underneath it, indicating the relative size of the new area of service that is achieved by the drop-in.

Mr. Cox. For the record, Mr. Lodge, when you talk about these offset carrier frequencies, you refer to the fact that a frequency, such as channel 6, is not only channel 6 but can be channel 6 plus and channel 6 minus, by some minor variation in the frequency used?

Mr. LODGE. Yes. It has been found that stations operating on almost exactly the same frequency create much worse interference to each other than if they are separated by a nominal frequency of eight or ten thousand cycles. This is used in the present allocations structure to extend the interference-free area of stations. When one adds 4 stations in a signal area, it would be necessary to change from the present system that has one of 3 stations exactly on the frequency, one would be slightly higher, and the other slightly lower at the present time. We would have to devise 4 different frequencies instead of 3, if you had 4 neighbors living in the same block, as it were.

Mr. Cox. As I understand Mr. Merryman's proposal, even conceding the limited area that would be served by the drop-in—which he showed as some 310 square miles and you reduced to 150 or 285—that was necessary, in his view, in order to provide a local TV service in Bridgeport, which has a substantial population.

Mr. LODGE. I don't believe that these exact mileages refer to the Bridgeport case. He used it as a theoretical case, just as I did, to indicate the theoretical approximate effect you would get from this.

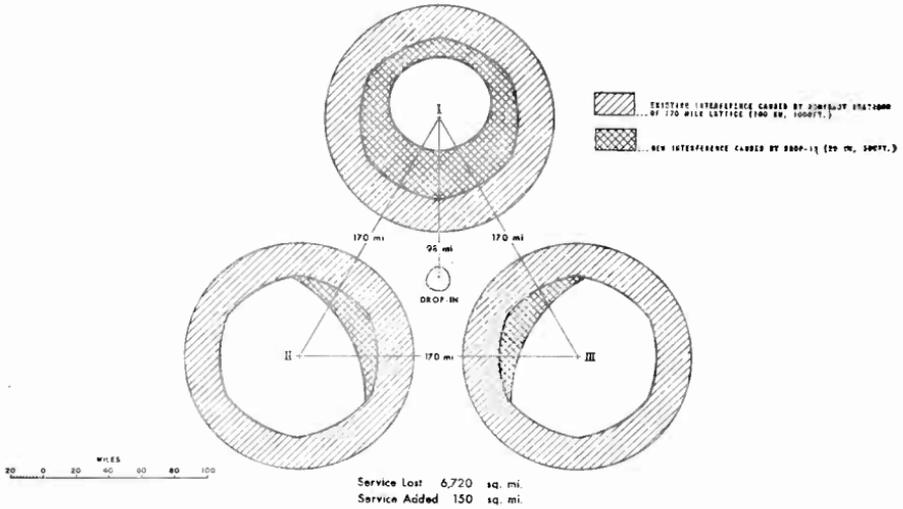
Mr. Cox. Would it apply more or less to dropping in channel 6 in Bridgeport, with existing stations operating on that channel at Schenectady and Philadelphia?

² The exhibit referred to appears on the following page.

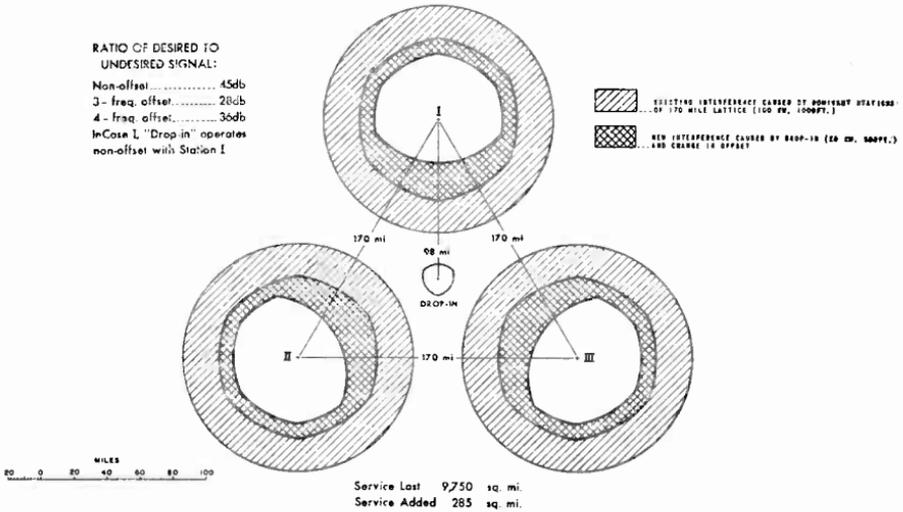
EXHIBIT 2

COMPUTED GRADE B INTERFERENCE FREE AREAS

CASE I - PRESENT (THREE) OFFSET CARRIER FREQUENCIES



CASE II - MODIFIED (FOUR) OFFSET CARRIER FREQUENCIES



Mr. LODGE. It illustrates the type of thing that would happen on the drop-in's; yes, sir.

Mr. Cox. I take it, since this is a purely theoretical proposition, then, that you have no idea whatsoever as to how many people live in these various areas described, or as to whether or not they would still continue to receive interference-free service from some other station not on the channel in question?

Mr. LODGE. That is right. This is confined to the use of a single channel and there could be a second service available. Of course, the service lost to these people might be a very desirable service. They might lose their most popular features.

Mr. Cox. When the Commission adopted the sixth report, it eliminated some services by dropping in channels which created interference; didn't it?

Mr. LODGE. I don't believe that the sixth report deprived many people of television service as it went into effect. I don't recall any cases of that nature.

Mr. Cox. Commissioner Bartley tells me his uncle in Texas could no longer get Oklahoma City because they put another station somewhere else in Texas that interfered with it.

Mr. LODGE. There may be cases that are out in the distant fringe, but if we confine ourselves to the reasonably confined service area, and not the very, very distant fringe, I don't believe there were very serious inroads made on that.

Senator POTTER. When you mentioned low-power drop-in stations, how low power do you mean?

Mr. LODGE. This particular example, as I recall it, was the order of 20 kilowatts at 500 feet.

Senator POTTER. What grade A service would a station like that provide?

Mr. LODGE. The order of 10 miles, 15 miles.

Senator POTTER. But their interference range would be—

Mr. LODGE. That is the point. Unfortunately there is much more interference than there is in a new served area.

Senator POTTER. It is not a matter of just lowering the power to a low area that is caught in the middle of 2 or 3 stations?

Mr. LODGE. No; if you reduce the power to the point where it would not create any interference, I am afraid you might not serve more than 10 blocks or something of that order.

Senator POTTER. Would you receive the same type of interference from a booster station?

Mr. LODGE. Boosters in general create much less interference, because I believe by "booster" you mean a very low-power booster?

Senator POTTER. Yes.

Mr. LODGE. In that case it would tend to create less interference than a station of the power indicated here of 20 kilowatts.

Senator POTTER. You may continue.

Mr. LODGE. The Hometown Television witness testified that, in this example, the "actual new interference is relatively small." Somehow, the loss of 35 to 40 square miles of existing service for each square mile of new service doesn't seem to me to qualify as "relatively small"

even in cases where the loss is confined to rural and smalltown areas.

Some drop-ins would be less destructive of existing service than this hypothetical case, but the Hometown example does illustrate the danger of permitting numerous drop-ins which cause extensive interference to existing services. It will in general be true that the area of loss of service will be a large multiple of the area of service gained. Consequently, the general adoption of drop-ins not safeguarding existing services would result in a great loss of service to the public, and would violate the first objective of the allocation plan, national service. It would represent a step back to the conditions that led to the freeze in 1948.

CBS PLAN I

I come now to the CBS proposals as made to the FCC. Some witnesses before your committee have commented on the CBS plan. One witness has described it as a monopoly plan for television and has alleged that under the CBS plan all those who live outside the 100 top television markets would be deprived of all television service. I submit that an examination of the CBS plan will prove that these criticisms are unjustified and that, on the contrary, our chief motivation was to increase competition—competition, incidentally, to ourselves—in the 100 leading television markets, at the same time improving the prospects for television service outside of these markets.

CBS plan I represents an attempt to repair, within the spectrum space devoted to television in the sixth report, one of the most serious defects of the present allocation plan. That is its failure to provide at least 3 competitive stations in each of the 100 leading television markets. It seemed appropriate to inquire how far one could go toward remedying this defect by the use of VHF drop-ins without depriving any significant number of families of television services they would get in the absence of these drop-ins. The result was CBS plan I, included in the CBS proposals and comments submitted to the FCC.

The plan involves a total of 37 new VHF assignments to 31 markets. It proposes 26 drop-ins of VHF stations, 7 stations to be permitted to move from small communities to adjacent larger communities, and 4 unapplied-for VHF assignments to be shifted to markets which need them. The use of directional transmitting antennas and cross polarization is also contemplated.

Plan I would increase by over 60 percent—from 52 to 84—the number of the 100 leading television markets with 3 or more substantially competitive television stations. This increase can be accomplished without significantly reducing the service areas of existing or currently assigned stations. Thus, we believe, we have taken a significant step toward objective (c), multiplicity of service.

I have since studied other plans submitted in the current rulemaking proceeding of the FCC, and some of these, principally those of ABC, Storer, and station WWLP, contain features that can be used to improve plan I. Subject to these improvements, plan I, or something like it, is in my opinion the best immediate action that can be taken to relieve the allocation problem.

This plan has been sharply attacked on the basis of a misunderstanding which I hope was not willful. It is alleged that the CBS plan would take care only of the 100 leading television markets, leaving

the rest of the country unserved, as a white area. Mr. Merryman testified before this committee on February 28, 1956, that—

If you live inside one of the (100) squares, you are presumed to be able to get a signal—and I guess you probably would. On the other hand, if you live in one of these white areas, you don't get any TV. Look at the size of the white areas. Look at how much of the United States is left uncovered under the CBS plan.

Probably the best answer to the charge that CBS is interested only in the 100 leading television markets and is ready to have the rest of the country go unserved is the fact that the CBS television network has affiliated with stations not in the 100 leading television markets only, but in 178 markets, covering as much of the country as we can. We have affiliates not only in Detroit and Philadelphia but in Grand Junction, Colo., and Twin Falls, Idaho, with 5,300 and 6,300 families, respectively.

Mr. Cox. Isn't it true that according to Dr. Alexander's study, neither of those communities can support a television station?

Mr. LODGE. I don't know.

Mr. ALEXANDER. If I can reply to that, these are the number of families within the community and not within their TV market.

Mr. COX. Just in the incorporated limits?

Mr. ALEXANDER. These are the city limits.

Mr. COX. Do you have any idea what the population of the service areas would be?

Mr. ALEXANDER. I don't have it with me. I would suggest they would probably be about 20,000.

Senator POTTER. We are still trying to get TV in Cheboygan. We don't have many people, but we have a lot of good country. [Laughter.]

Mr. LODGE. In fact, the CBS plans did not propose any alteration in the assignments outside the centers of the 100 leading television markets except for the 4 channels so far unapplied for and the 7 channels permitted to move toward larger cities. In all except these 11 instances, the community assignments were left unaffected. It certainly does not extend the white areas.

Our emphasis on the 100 leading television markets was a result of the fact that it was in those markets that we were proposing changes. As noted in Columbia's December 14, 1955, comments to the FCC:

* * * the imperative present and identifiable need is to increase the number of competitive assignments in larger markets.

For this reason plan I and plan II have been worked out in complete detail only to take care of urgent present needs in the 100 largest television markets. *There are currently a large number of assignments to smaller television markets and additional assignments could be made to them*" (p. 14; emphasis added).

Those markets outside the coverage areas of television stations in the 100 leading television markets and large enough to support one or more program-originating stations do not, in general, offer a serious assignment problem. Because they are situated at some distance from the leading markets they can usually be assigned channels which do not conflict with the assignments to the leading markets. These smaller markets cannot, in general, support more than two television stations (p. II-3).

Senator POTTER. In other words, what you are saying in your plan here is that they should have, or try to have, at least 3 different TV stations in your first 100 markets?

Mr. LODGE. Yes.

Senator POTTER. But it doesn't exclude your other markets from having 1 or 2 stations; you can't expect to have—

Mr. LODGE. Or 3 or 4, as far as that goes.

Senator POTTER. You can't expect to have 3 stations in a town of 20,000, for example?

Mr. LODGE. Well, if it doesn't take channels away from some larger market, there is no harm in assigning them there. In practice it doesn't appear they can support that many, you are right.

Mr. Cox. Isn't it true that the comment that they are situated some distance from leading markets, so that channels are available, is not true in zone I, for instance?

Mr. LODGE. In general, that is correct. That was the reason that we had to make a choice in trying to apply the drop-in principles that we use in our plan as to whether we would assign a channel that could be dug up to one of the larger markets to give a third outlet there. You could possibly have it assigned to some smaller community. We thought the need for three assignments in the big markets was the important pressing one. That was our only reason for being concerned with the top 100 markets; not that we wanted to ignore service throughout the rest of the country.

Senator POTTER. You feel you could do that without taking away an appreciable amount of service in the outlying areas?

Mr. LODGE. That is correct.

CBS Plan I can make a major contribution toward realization of the multiple-service objective without any detriment to the two objectives of national coverage or community stations. Indeed, while making no direct contribution to the community station objective, it does make an indirect contribution. By providing substantially equal competitive facilities for three networks, plan I should strengthen a third network in the critical markets. By so doing, it will encourage construction in smaller markets. For it is to be noted that network service to smaller stations, to which such service is particularly important, is in fact a byproduct of a strong network service to the larger television markets.

The plan involves no cost or loss of service to the public or to existing stations. It does involve a decision to focus efforts on objective (c), multiplicity of services, rather than on objective (b), community stations. As I will discuss after an analysis of the proposal for community stations, we believe that there are most compelling reasons to justify this decision.

ADDITIONAL VIIF SPECTRUM SPACE

CBS Plan I, improved by incorporation of suggestions of others, is probably a fair measure of what it is practical to accomplish within the spectrum space now allotted to television broadcasting.

Mr. Cox. In that connection, Mr. Lodge, can your plan, with these suggestions which you think improve it, become a reality if the FCC continues to intermix by making grants of V's in areas which are affected by your plan?

Mr. LODGE. There are some cases where the passage of time would eliminate possibilities that we could achieve now.

Mr. Cox. You propose deintermixture in favor of all UIIF in Madison and Peoria?

Mr. LODGE. That is correct.

Mr. Cox. Where there is either a grant issued or a pending application?

Mr. LODGE. Yes.

Any major advance on that plan, consistent with all three objectives, requires more VHF frequencies.

The procurement of seven additional VHF channels and their devotion to television broadcasting would provide a long-run solution for just about the entire allocation problem. CBS plan II, submitted to the FCC in our proposals and comments, indicates how 3 additional VHF channels would suffice, in connection with some of the other devices used in plan I, to provide 3 or more competitive channels in each of the 100 leading markets, without exception. Four more new television channels, making seven in all, would also suffice for VHF television assignments to substantially all the cities which would be likely candidates for local community television stations. I assume that these four channels would be used for local assignments with such power and separation as to provide a service radius considerably smaller than that of standard television stations.

Mr. Cox. Isn't it true, when you say this will give you, without exception, 3 competitive channels in each of the markets, that all of those markets to which the new channels, 6A, 6B, and 6C, are allocated, would be faced with a form of the conversion problem which faced UHF?

Mr. LODGE. Yes, they would.

Mr. Cox. In other words, if you dropped channel 6A into a community which had two existing channels, the proprietor of that station would have the same problem of persuading people to spend money to convert the set in order to be able to get his signal?

Mr. LODGE. Yes. In the next paragraph I touch on that very point.

While the addition of these new VHF channels would eventually solve the allocation problem, it would do so only gradually. Initially converters would be required at a cost roughly comparable to UHF converters. Those UHF operators who have achieved good UHF conversion understandably wince at a second conversion. But the new VHF channels, unlike UHF, could be received on existing VHF antennas. The severe shadowing of UHF would be avoided. And the extra cost of a 19-channel VHF instead of a 12-channel VHF receiver should be smaller than the extra cost of a VHF-UHF receiver.

How much it will cost the public to be able to receive the new as well as the old VHF channels depends on whether the route is fast via conversion of existing sets, or slow via gradual replacement of 12-channel VHF receivers by 15- or 19-channel VHF sets. The fast route would be more expensive than the slow. The slow route is likely to be the more commonly followed. During a transitional period, existing UHF stations shifting to a new VHF channel would probably broadcast simultaneously on both channels. Entirely new stations on the new channels would usually furnish the second or third service in the market. In either case, the incentive to convert would not be strong enough to inspire any but a gradual process. Consequently, the eventual cost to the public of being able to receive the new channels would probably be low, principally because the process would be slow.

Senator POTTER. Do you think, Mr. Lodge, that the set manufacturers would start manufacturing an all-V set then to take in the new channels?

Mr. LODGE. There would have to be some indication that the broadcasters were willing to go ahead with the use of the channels, but I see no reason why, with assurance that they would be used, there would not be available the 19-channel or 15-channel, instead of 12-channel VHF.

Senator POTTER. With all the problems that we have had with UHF, I shudder to think of having another band of a super-VHF to cause consternation to the public.

Mr. LODGE. I don't blame you for that, but at least you would have a future that you could look forward to as being reasonably probable; namely, sets that wouldn't be too dissimilar from those today, performance that would be analogous to what we get on the VHF channels, and at least a sound future ground.

Senator POTTER. You think there would be more incentive to convert to one of these new VHF channels than there is at the present time to convert for UHF?

Mr. LODGE. I believe so. The cost differential in the receiver would be much less.

Mr. Cox. As long as there is any differential, isn't it demonstrated pretty clearly that as long as there remain some areas which have none of these new channels, that there will be an incentive to manufacturers to manufacture sets that will receive only the existing 12 channels, and that to the extent that those sets get into the market where there are new channels on the air or provided for, that you have got the conversion problem in just about its present terms?

Mr. LODGE. Unless you can get the differential in cost between the two types of receivers so low that it is cheaper to make them all that way than to have two models, I believe you are right.

Senator POTTER. How much would it cost to convert?

Mr. LODGE. Converting would be expensive, just about as expensive as UHF; but to go into production on a tuner that had, say, 15 or 19 instead of 12—I don't have exact costs, but I would guess that it might be the order of \$1.50 or \$2 extra at the manufacturing level in place of the \$7 or \$8 it is now.

Mr. Cox. And possibly to get the advantages of mass production, they would produce only all-channel V sets, even though they were going to be selling a substantial number of these in New York, Los Angeles, and other areas where the extra 3 or 7 channels would be unneeded?

Mr. LODGE. It is the only way I can see we can get small stations that can have channels to be tuned in.

Senator POTTER. How many of your first hundred markets would these channels be in?

Mr. LODGE. As I recall it, some 12 or 15.

Senator POTTER. That would be sufficient, I assume, to warrant the manufacturers to manufacture an all-V set to take care of it.

Mr. LODGE. I would hope it would; yes.

Mr. Cox. Twenty-three communities, I think.

Mr. ALEXANDER. I wonder if I might be permitted to elaborate on one point, where Mr. Lodge said conversion would be about the same cost as in the case of UHF. He was referring to the set only. There

would still be the differential that in UHF you have to put up a new and different antenna, while for these VHF channels—

Senator POTTER. You use your regular antenna.

Mr. ALEXANDER. Yes, sir. So the actual cost, the way it would look to a consumer, would be about half as much in this case, even if he converted immediately, because as a rough order of magnitude, half of \$50 to \$75 goes into the converter and half into the antenna.

Senator POTTER. Well, you may continue.

Mr. LODGE. The major difficulty in achieving this long-term solution to the allocation problem is that of actually getting the seven additional channels. I do not have information concerning the expense involved in transferring other services from VHF channels now being used to higher UHF channels. Nor is there publicly available any indication of whether the Government purposes could be as well served by the higher frequencies as by the VHF. I hope that this committee will be able to explore the conditions of availability of additional VHF channels. The complete long-term solution of the allocation problem does require, in my judgment, seven additional VHF channels.

Senator POTTER. Mr. Lodge, in the CBS report to the Commission, did you make any recommendation about utilizing some of the unused educational VHF channels?

Mr. LODGE. We did not mention that, sir.

Senator POTTER. That is not part of your plan?

Mr. LODGE. It was not contemplated in our plan.

Senator POTTER. To disturb the VHF stations for educational purposes.

Mr. LODGE. No.

Mr. COX. Your plan envisages all of the allocations in the top 100 markets?

Mr. LODGE. Yes, sir.

Mr. COX. The only impact of that would be on the educational UHF allocations in those markets and in other markets, which would quite possibly for all time be rendered useless?

Mr. LODGE. If the UHF did not develop.

Mr. COX. In other words, your plan, since it does not alter the all-time dominance of VHF in certain of the top markets like Detroit, Washington, New York, Los Angeles, and so forth, where there are no V educational assignments at present, means that no educational stations can ever go on the air in those communities?

Mr. LODGE. We had enough trouble trying to patch up the competitive picture without patching up educational as well.

THE PROBLEM OF COMMUNITY STATIONS

I come, finally, to the question of community stations. At the outset, I want to make it perfectly clear that CBS shares the desire of this committee, and the witnesses who have appeared before this committee, for a sound and prosperous system of local community stations. The ideal television system would permit the people of local communities such as Bridgeport freely to choose, with the switch of a dial and with no added expenditures for conversion, between the programs which come from the Bridgeport station and those that come from New Haven and New York.

That is the way it should be. Just as the people of a small town can read both the local paper and the metropolitan daily, and listen to both the local and the big-city radio stations, so they should be able to watch both the local and the big-city television stations.

This is the ideal. But the painful question is whether, in present circumstances, it is possible to realize the ideal.

As we have just noted, if something like 7 additional VHF channels could be procured for television use, so that 4 of them could be devoted to community stations, there would be ample provision for community stations. But if these additional VHF channels are not available, alternative approaches do not seem promising.

I have, in the testimony to this point, examined each of the major approaches which have been proposed for the solution of the allocation problem, and in each case I have tried to evaluate how close these plans bring us to achieving each of the three objectives, and the price which must be paid for the advances which might be made. As you may have noted, it is clear that the most extreme degree of deintermixture or drop-ins is required to approach the objective of community stations, and the price of the progress is so huge that they must be rejected on the ground of cost and impracticality.

Indeed, the unyielding nature of the community station problem seems at least to be implicitly admitted even by the champions of the community television concept. For the proposals which they have made have been vague and changing. Thus, the Committee for Hometown Television, Inc., in its original proposals to the FCC, confined itself to the vague generality that "each station's signal coverage must be conformed to the retail trading area of its community." The committee did not specify how this objective was to be accomplished. Mr. Merryman, testifying before your committee, stated that "we do not propose that any VHF station reduce its power." He did propose VHF drop-ins which would, if generally adopted, greatly reduce not only multiplicity of service but national coverage, through their extensive and excessive interference with existing signals. The adverse effects of this line of action on the Nation's television system are so great that it must be rejected.

Some further measure of the difficulties which the Committee for Hometown Television, Inc. itself has met in finding a sensible solution is illustrated by the obvious fallacy of their most recent proposal. You will recall that, apparently disturbed by the amount of interference which their plan entailed, they proposed a scheme which is novel, to say the least. They proposed that the VHF drop-ins be permitted only if the use of the channels thus dropped in would simultaneously operate on UHF. Then, Mr. Merryman proposed, at the end of 5 years or after 85 percent conversion to UHF has been accomplished, whichever is later, the operator would be compelled to abandon his VHF transmission and operate only on UHF. At that point, existing VHF stations, whose service had been contracted because of the interference from the VHF drop-ins, would again be able to expand to their normal coverage areas.

The folly of such a proposal only underscores the difficulties of finding a proper solution to the problem. For it is perfectly obvious

that dual operation would hardly encourage UHF receivers; if a viewer can receive precisely the same programs on VHF, why would he spend \$50 to \$100 to get those programs on UHF? That is like a prescription on a whisky bottle, directing the user to take 1 drink every 5 minutes until sober. Obviously, this is no 5-year limitation, since 85 percent conversion could never be accomplished. It is a permanent provision subjecting existing stations to excessive interference.

Still another proposal to aid the community stations would eliminate the competition of stations in larger cities by attempting to forbid the outside signal from entering the area of the smaller city. I cannot believe that this proposal for an electronic tariff wall, State by State, and community by community, can be seriously considered in a nation such as ours, where the choice of the public is regarded as decisive. I doubt that the people of Bridgeport would appreciate being barred from the 8 signals they are now receiving from New York and New Haven in order to force them to look at 1 or 2 local stations located in Bridgeport.

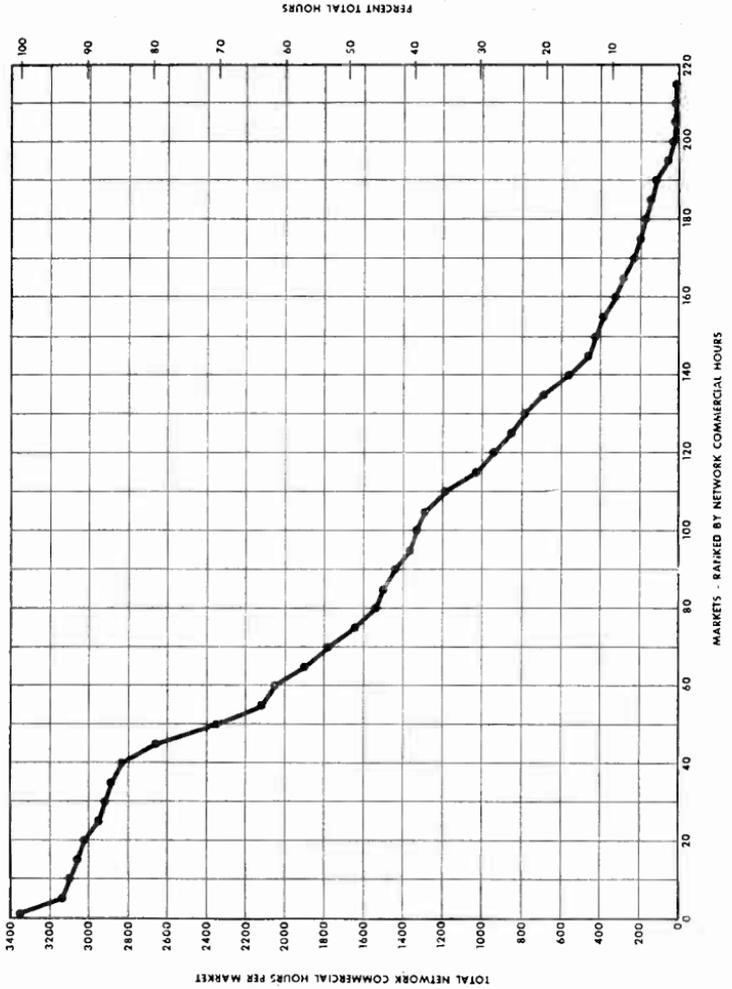
And, in any event, I should note that, wholly apart from the way that such a proposal would turn its back on the fundamentals of free enterprise, it would adversely affect, to a serious degree, both objective (a) and objective (c). The same effects, caused by indiscriminate drop-ins, of depriving many areas of service altogether and many more areas of the number of multiple choices they now have would result from such an electronic embargo. Thus, many people would lose service altogether. Others would have their choice of services radically reduced. For example, if the service from 8 outside VHF stations into Bridgeport were to be cut back to protect the Bridgeport station, the people of Bridgeport will get 1 or possibly 2 Bridgeport signals instead of the 7 from New York and the 1 from New Haven. Further, the 1 or 2 local stations would be ordered by the advertiser for many fewer of the popular network shows than are carried on the larger big-city stations.

I submit, as exhibit 3,¹ a chart showing the total commercial hours of CBS network programs ordered and carried in various markets. It appears that the 100th market is ordered for only about 2 out of every 5 programs for which the largest market is ordered. The fractionation of the audience that would result from cutting back the service areas of the larger stations would result not only in a reduction of the multiplicity of service, but also of the richness of service in terms of program fare.

And if it were to be decided that the service areas of the television stations in the larger market centers should be cut back in order to force-feed stations in smaller cities, there is hardly any end to the process. If Bridgeport is to be protected from New York, should not Wilson, Conn., be protected from Bridgeport, and South Wilton from Wilton? Obviously the line must be drawn somewhere. It seems to me it should be drawn where it will give the public the programs for which it has indicated a preference and the structure under which it can exercise its preference.

¹ The chart referred to is reproduced on the following page.

EXHIBIT 3
TOTAL CBS TELEVISION NETWORK COMMERCIAL HOURS FOR 1955



Thus, it is clear that, short of additional VHF channels, no comprehensive allocation solution of the community station problem is available. Hence, CBS plans I and II were based on the fundamental fact, which I hope I have made clear in all my preceding testimony, that objective (c) can be achieved without substantial cost or detriment to the other objectives, while objective (b) can only be achieved at enormous cost and dislocation to the public, and at the expense of both objectives (a) and (c).

This is not to say that we need give up hope for some further development of community stations.

Mr. Cox. How about this, Mr. Lodge: Assuming that you are going to provide 3 competitive services in the top 100 markets, the present tendency seems to be, of course, that all 3 of those stations, their transmitters, their studios, are located in the same community, which is the largest community in the area. Would it be engineeringly possible to have the 3 V channels that you allocate to the Houston market, or to any other market, located at more than 1 community within that general market area, if there are communities large enough to deserve and to require the kind of local service that Mr. Merryman wants for Bridgeport—and all the people he brought down with him?

Mr. LODGE. By that you mean to leave the transmitters where they would still serve the major metropolitan area well?

Mr. Cox. Yes.

Mr. LODGE. I wouldn't think the moving of the transmitters was necessary. If you are going to strive to serve, say, the half million people, or however many need the service, and want to concentrate on a smaller community, that could be done within the programming of the station, but it would not require you to move the transmitter.

Mr. Cox. But it would require at least some public identification of this station with community A and of the other one with community C, so that the people in those communities would feel that they could look to those stations to provide local service in addition to the multiple network service that all three stations are providing for the area?

Mr. LODGE. Well, I am not sure I am too qualified to comment on that proposal. It would mean, of course, that the entire metropolitan area would also be required to view the local programs, as well as the ones in which they were interested.

Mr. Cox. Now they are required to view the local programs of whatever sort the stations from New York put on the air, aren't they?

Mr. LODGE. Yes.

Mr. Cox. This would give them a choice of three types of local programming to choose among; and quite probably the local programming would be placed opposite, in some cases, network service, so if they weren't interested in that they could switch.

Mr. LODGE. On this matter of programming maybe Mr. Salant might wish to comment on that. This is out of my field.

Mr. Cox. We can take the matter up later.

Senator PORTER. We have a case in Michigan where the channel allocated for Flint will serve the Detroit market, and also it can serve other areas; where if the transmitter were located right in Detroit, it couldn't serve them. It would serve Detroit from the Flint area.

Mr. Cox. Aren't they trying to locate the transmitter so it won't serve Detroit?

Senator POTTER. Yes. I do not know whether it would serve Detroit from the location they are now considering or not.

Mr. Cox. If they move from south of Flint to north of Flint, they end up serving Bay City, don't they, instead of Detroit? In connection with this possibility of community service, I am impressed by the fact that you keep insisting in your comments to the FCC that this concept of drop-in V's should be limited only to the specific instances that you have included in the plan.

Mr. LODGE. Yes.

Mr. Cox. If your conception is valid, and if interference-free service can be provided in this way, isn't there a possibility that other V's could be dropped in on the periphery of some of these large markets, which would not cause interference with the local stations, but which would raise the possibility of local service in those areas?

Mr. LODGE. It is a very good point, Mr. Cox, and in going over this work, we, of course, considered that possibility. What you get into ultimately is this problem: That we cannot map out as accurately as we would like to the full extent of the service of television stations. It goes beyond any rhyme or reason, and there are people who depend on very distant areas. You mentioned earlier somebody down in Texas who had lost his service. There are a lot of cases like that. We felt that the need for a competitive service in the big markets was very great and justified making the changes we proposed, which were conservative and would protect service within any reasonable definition of it; but if the same principle were allowed to be used on a wide scale basis, and even though it did protect the roughly defined service areas, I think the end result would be real damage to the rural person who may have to get his only service from the station that may be 100 or 120 miles away. Still, if that is the only service he is going to be able to get, I think it would be wrong for us to take it away from him.

Mr. Cox. Without being critical, I think it is worthy of comment that another thing that you have emphasized throughout, normally by the use of italics, is that your proposal is not going to interfere in any way with the service area of existing stations, and that means, as Senator Potter pointed out, existing V stations—and you state that your proposal is a conservative one. Isn't it actually designed to reassure the present operators of V stations, who are your major affiliates, that this proposal is not one which could conceivably injure them?

Mr. LODGE. I would say that the real objective was not to damage service to the public.

Mr. Cox. This gets back to your colloquy with Senator Pastore.

Mr. LODGE. Yes.

Mr. Cox. In other words, you quoted Dr. Stanton, I believe, to the effect that there is no proposal which will help everybody and not hurt somebody. Your proposal is one which is very well calculated to provide extensive service, multiplicity of service in the major markets, and to preserve the present economic position of existing VHF operators, and to that extent to protect and preserve your network operation—isn't that true?

Mr. LODGE. To protect the existing service. It has the other label on it just as well. It does protect existing service, and in so doing I think it is good for us as well as the other people.

Mr. COX. That is, the one substantial addition that it makes is to provide the possibility of multiple service, and concurrently the possibility of a third equivalent network?

Mr. LODGE. That is correct. The major objective was to improve the situation for ABC.

Mr. COX. However, doesn't it put a ceiling at that point, in the absence of additional V channels, and make it impossible for a fourth network to develop?

Mr. LODGE. It would be wonderful if there were space for a fourth. Somewhere we had to ask ourselves: "How far can you go without too much damage to service?" It seemed that that was as far as we could go.

Mr. COX. In other words, your opinion is that unless we get additional VHF spectrum space, UHF cannot be salvaged to the extent that it can be made the means of obtaining a fourth and fifth outlet in major markets?

Mr. LODGE. It looks very pessimistic for it now.

Senator POTTER. In other words, if you had enough V channels for, say, the top 50 markets, could you reallocate those V channels in the top 50 markets for an additional network, with 4 networks in those top 50 markets, without seriously disrupting the service that now exists?

Mr. LODGE. No, I don't believe so. You get into a situation right here in Washington, D. C., and Baltimore, where I know of no way, with the present channels, to get 4 VHF stations in Washington and 4 VHF stations in Baltimore.

Senator POTTER. You may continue, sir.

Mr. LODGE. This is not to say that we need give up hope—I should, incidentally, return to one of my answers earlier. The excise tax, of course, does give hope that you could spread the set ownership, but barring some method by which you infuse every home with an all-channel set, I saw no very optimistic trend of the effect of using it in all markets.

Mr. COX. Even if you get an all-channel set in every home, as long as you leave 2 V's in the major markets, or 3 V's, and look to UHF for further expansion of the service, you are not going to get it because they can't compete coveragewise, quite apart from the ability to reach the set?

Mr. LODGE. I think you can take a certain amount of coverage deficiency and compete, providing you have access to 100 percent. or a large percentage, of the people who are in the central core that you serve; but if you throw in both deficiencies; namely, coverage and inability even to have all of those in the central core tune you in, then it is really a backbreaker.

As I have said, when we have a sound, competitive, multiple nationwide service, I believe that will also advance community service. And I believe that the technological and economic frontiers, as well as the frontiers of ingenuity of men like Mr. Merryman, have not yet been reached. As program sources continue to increase—and they are doing so now with remarkable rapidity—as new inventions and developments decrease costs of construction, operation, and programing,

and as the community operators devote their ingenuity and energies to finding new methods of buying programs and operating their stations, I believe that there is real hope of some further growth of community stations without destroying the whole structure of television. I believe it is too soon to give up. Twenty years ago it might have been difficult to visualize the success of the operations of community stations in radio. Equally, now, it may be difficult to visualize that the same technological and programing developments and the same ingenuity will have similar beneficial results for independent community television stations. But I think it foolish and premature to believe that today's limitations are limitations for the future.

Senator POTTER. I think your conclusions restate your recommendations fairly well. It might be desirable to stop here and then when we resume this afternoon, in G-16, we can take up your conclusions at that time as a basis for any further questions that might be asked. The committee will be—

Mr. LODGE. Senator, before we break, I would like to return just to one of my answers, that we did attempt to show how a fourth channel could be obtained in as many as possible of the top 100 TV markets in our filing with the FCC. I forgot to answer that, Mr. Cox, earlier.

Mr. Cox. However, isn't the problem there, Mr. Lodge, that you succeed in adding them in all the wrong places?

Mr. LODGE. That was the bottleneck.

Mr. Cox. You get an additional service for the 8th city and 30th city, and you start with the 36th and work down to the 96th, but you leave Boston, Detroit, Cleveland, St. Louis, Indianapolis, Kansas City, Buffalo, and Milwaukee, with 3 stations, and you still leave Providence with substantially 2 stations?

Mr. LODGE. Not having any desire to do so, however.

Mr. Cox. All right.

Senator POTTER. We will meet this afternoon in G-16, the regular committee room over in the Capitol, at 2:30.

(Whereupon, at 12:25 p. m., a recess was taken to 2:30 p. m.)

AFTERNOON SESSION

Senator POTTER. The committee will come to order. I want to apologize to Mr. Lodge and to the other of our guests and members of the press who have been waiting.

The Senate, as you know, is an unpredictable body. We had assumed that we would be voting during the past hour. We still haven't voted. I assume as soon as we get started the bells will ring. But I think that in order that you may make your plans for today, unless something transpires that I do not know of, we will conclude the testimony of Mr. Lodge and whatever colleagues he might have, and we will recess until 10 o'clock tomorrow.

All right, Mr. Lodge.

STATEMENT OF WILLIAM B. LODGE—Resumed

Mr. LODGE. At the recess, I had come to page 29 of my prepared statement and was about to read my conclusions, which are only about 2 pages in length.

I began my testimony with a warning against generalizations. Now, however, having examined various solutions in detail, I would

like to summarize the results of our studies in a few general conclusions.

1. Of the three objectives—nationwide coverage, community stations, and multiplicity of service—the first is already substantially attained. Beyond a certain point, further progress toward fulfilling either of the two still-unattained objectives can be achieved within the presently allotted spectrum space only at the expense of the other objectives.

2. A minimum systematic deintermixture could, in conjunction with other measures, attain the multiple-service objective with some loss in the nationwide service objective, and appreciable dollar cost to the public. Very widespread application of deintermixture would be required to achieve the community objective, but this would reduce nationwide service and involve a tremendous dollar cost to the public. From a practical point of view, however, neither moderate nor widespread application of systematic deintermixture seems feasible.

3. A controlled plan of VHF drop-ins, such as CBS plan I, would greatly help the multiple-service objective by increasing the number of television markets having three or more competitive stations, and at negligible cost to the nationwide service objective. Very widespread use of drop-ins would be required to achieve the community objective, and would be counter to the nationwide service objective. Because of the adverse effect on the public, wide-scale use of drop-ins does not seem feasible.

4. Under CBS plan II, addition of three VHF channels would achieve the multiple-service objective with no loss in nationwide coverage. That objective would, of course, be achieved only after some time, not only because of delays to be expected in obtaining and assigning the channels, but also because the number of sets capable of receiving the new channels would increase only gradually. But three added VHF channels are insufficient to achieve both the multiple-service objective and the community objective. A total of some 7 additional VHF channels (with, say, 4 reserved for small-coverage community stations), would come close to achieving all 3 objectives: Nationwide coverage, multiple services, and community stations.

5. Thus it becomes apparent that whether deintermixture, drop-ins, or additional VHF channels are considered, the price of obtaining community outlets is much greater than the price of obtaining multiple services. It seems unrealistic to contemplate use of deintermixture or VHF drop-ins to the extent necessary to achieve the community objective; within the present spectrum a major increase in community stations is attainable only at too great a cost to the public. But it is possible, without appreciable cost to the public, to make multiple services available in many areas. For that reason, I believe CBS plan I was right in concentrating on an increase in competitive stations in the larger markets.

6. In addition to recommending a specific course of action which could be followed by the FCC, I believe that CBS plan I has considerable value in indicating the approximate increase in station assignments that can be made without depriving some areas of all television service. It also indicates, I fear, that unless additional VHF channels can be assigned to television, many community stations can look

forward only to painful and possibly slow development of UHF channels.

7. Finally, since a reasonably complete long-term solution to the allocation problem seems dependent upon an increase in VHF channels, the full authority of your committee should be used to insure vigorous exploration of every possible method of obtaining such channels.

Senator POTTER. Mr. Lodge, is it your feeling that UHF is done, or dying fast?

Mr. LODGE. It is certainly not going forward, and as I said earlier, barring some step which will increase the flow of all-channel receivers into the homes, I see nothing but sliding backward from this point on.

Mr. Cox. Certainly your plan doesn't do anything to actively promote the future of UHF?

Mr. LODGE. No; our plan does not, except to the extent that three networks would make—three successful and prosperous networks with more programs would help stations in the smaller communities.

Mr. Cox. But those would be largely stations in smaller communities in the West where there are available allocations. They would not be small communities in zone I, where there would be nothing available for their use except UHF channels?

Mr. LODGE. With a few exceptions that is absolutely right.

Senator POTTER. What comment would you have to make on the testimony that was presented to the committee yesterday by Mr. Moore, concerning, first, option time and the other, the must-buy provision?

Mr. Cox. Actually that will be discussed later.

Mr. LODGE. I am not the witness who should answer that.

Mr. Cox. Dr. Stanton will be down.

Senator POTTER. I have no further questions, then.

Mr. Cox. I have some.

Senator POTTER. All right, Mr. Cox.

Mr. Cox. Mr. Lodge, you say, of course, that the public interest is the test in this matter. Wouldn't it be fair to say, however, that the public interest involves not just presently available TV service, but a capacity for future expansion of that service if it is at all possible?

Mr. LODGE. Yes. I would agree with that.

Mr. Cox. Your plan is based upon 100 markets which would comprise the service areas of 3 stations in each of 100 major communities. How do you determine the service area of any of these stations which you have projected in this plan?

Mr. LODGE. The method is one of approximation. Some of it is engineering contours, not, incidentally, the same contours that are used in the Commission's standards, but a standard of approximately one-half the intensity used by the Commission—

Mr. Cox. Which results in an increased—

Mr. LODGE. A somewhat larger service area than the Commission's coverage computations indicate. In other areas, however, where there is overlap—and we are right here in a good example between Baltimore and Washington—we would presume that the Baltimore stations are not listened to much in the city of Washington and vice versa, so a study of our map will indicate a cutting off of the service area between Baltimore and Washington.

Mr. Cox. In general, then, your calculations, whether based upon actual engineering measurements or upon these computations using

different values, produce service areas for VHF stations that are somewhat larger than those that would be predicted by the FCC engineering standards?

Mr. LODGE. Yes.

Mr. Cox. Now, I think that you indicated this morning a possible range for VHF stations of 75 miles. What would be the maximum that you would get for grade B coverage under the FCC standards?

Mr. LODGE. The Commission's standards take into account power, antenna height, et cetera, so that there are even in existence today some VHF stations that have a B contour in excess of 75 miles. I am thinking, for instance, of those in Salt Lake City, Albuquerque, and Los Angeles, where they are located on mountaintops, where the B contour may be of the order of 80, 90, or 100 miles. These are exceptions.

In general, the difference between the contour we use and the contour the Commission would use is about 10 miles in radius.

Mr. Cox. Now, I think you indicated that Florida is a desirable area for UHF. In general, would you say that the coverage of Mr. Storer's UHF station there compares favorably with that of the channel 4 station?

Mr. LODGE. In some directions it does. I have not personally observed it in some of the more built-up areas north of Miami. I would imagine in those cases there might be some minor deficiency, UHF as compared to V.

Senator POTTER. You mean because of the building obstructions?

Mr. LODGE. Yes, sir.

Mr. Cox. How does your coverage of your station WXIX in Milwaukee compare with WTMJ?

Mr. LODGE. Not as favorably as Mr. Storer's UHF station compares with WTVJ in Miami.

Mr. Cox. Why is that—again, buildings—or are there terrain factors there?

Mr. LODGE. There are buildings; there are terrain factors; but then you get into a very difficult area here, namely, what the public does about it. If the public buys a good outdoor antenna each time it attempts to tune in UHF, you get one situation, which is pretty generally good reception, assuming that the signal is strong and consistent. But if in a particular city the general custom is to use an indoor antenna or no antenna at all, then UHF has a tougher time than VHF does, over and above the other deficiencies, and Milwaukee is a city where outdoor antennas are not the rule.

Mr. Cox. According to your computations or measurements, does WCBS-TV in New York serve Bridgeport, Conn.?

Mr. LODGE. Yes; it does serve it quite well by test, by observation, and by audience.

Mr. Cox. I haven't checked your map. Do you include it within the New York market?

Mr. LODGE. Yes. It includes the Bridgeport service area.

Mr. Cox. Who exactly decides what area you are going to use for station coverage, where a station is affiliated with the network? Is that basically determined by the station, or does the network make the decision as to what will be the claimed coverage of the station?

Mr. LODGE. The station is free to make any claim it may wish. In our own appraisal of how effective that station would be as an addition

to the network, two groups—if you are speaking of CBS—attempt to make the best judgment they can. Our audience research group, using the data they have on popularity and amount of listening make their estimate, and the engineering department makes its estimate. We try to adjust the two.

Mr. Cox. I realize, of course, that in radio the distances are much greater, but possibly there might be some parallel. As I understand it, the AM station with which you were affiliated in Milwaukee has terminated that relationship and you now claim that your owned-and-operated station in Chicago, I believe, provides coverage for that area. Is there any parallel in TV coverage? Do you get situations where you can either say "This station provides the coverage" or "That station provides the coverage"? If so, has that affected these markets that you have outlined on your map?

Mr. LODGE. I see your point.

Mr. Cox. That is a complicated question.

Mr. LODGE. It is certainly true that, absent any CBS affiliate in a particular city that may be way out on the fringe, the effort by the listeners may be to pick up the distant station, and that if there were an affiliate in that particular community, the tendency might be for them to swing over to the local station. Certainly that is a type of consideration that comes up frequently in affiliation problems.

Mr. Cox. If you have two stations applying for affiliation which are somewhat close together, you either get a resulting overlap, which has to be adjusted between them, as far as claimed additional coverage is concerned in selling the network, or an adjustment has to be made in the location of the transmitter which will eliminate it. Is that true?

Mr. LODGE. Well, we would attempt to pick the affiliate that fitted best into our pattern. That is true.

Mr. Cox. Now, for instance, you list Spartanburg, S. C., as the 50th market. Was the determination of its service area and of the number of homes that would be served there based on the location of its transmitter on Hog Back Mountain or on Paris Mountain?

Mr. LODGE. I don't recall which one it was. I believe it would make very little difference which of the two sites was used for those computations, sir.

Mr. Cox. That is, you think equal population coverage would be attained from either?

Mr. LODGE. I think it would have swung possibly 1 or 2 counties one way or the other, but I don't believe it would have greatly affected the total service that would have been credited to that station.

Mr. Cox. Well, taking 1 station rather than the 3 stations which are allocated to the market under your plan, you would want one, I take it, that is removed to the south, so that you would not get overlap with your affiliate in Charlotte, N. C.?

Mr. LODGE. Well, either that or if there is another affiliate, another station there, we would try to ask ourselves which one would fit best in the network, and I believe it would be true that we would prefer one that did not have the maximum amount of overlap.

Mr. Cox. Even if this involved a removal of the transmitter some distance from the community to which the channel was allocated?

Mr. LODGE. Well, the station owner might make such move as he could under the FCC regulations.

Senator POTTER. Mr. Lodge, I have a vote. I have no further questions, but so the record will be complete, if Mr. Cox—if it will be all right with you for Mr. Cox to conclude with your questioning this afternoon, at the conclusion of the questions we will reconvene tomorrow at 10 o'clock. I am awfully sorry we have had this interruption, because I would like to have been here longer.

I understand Senator Bricker has some further questions he would like to have submitted for the record to be answered by Mr. Moore.¹ They will be placed in the record at this time. I know Senator Pastore had planned to be here, but he is engaged in a debate to save the Nation. [Laughter.]

Mr. Cox. As far as a network operation is concerned, is it more economical and simpler, just in terms of business, to operate with relatively few high-powered stations than it would be to operate with more stations of less power, providing equal coverage, if that were possible?

Mr. LODGE. I am not sure I could answer that question categorically. It would be simpler, obviously.

Mr. Cox. You would just have fewer people to deal with?

Mr. LODGE. Yes. As to the economics, I don't think I could answer that offhand; I don't believe I am the best witness for that.

Mr. Cox. Isn't it substantially true that your plan I provides, first of all, substantial coverage of the Nation—85 percent, I think you said, even in these markets, plus the additional coverage in the areas you are not dealing with—and it does this with an absolute minimum possible number of stations?

Mr. LODGE. It does it with only a hundred stations, that is correct. You could predicate it with—you could imagine a network would have still fewer stations than that, but this seemed to be a very practical way of trying to do the first 85 percent of the country.

Mr. Cox. Isn't it true that CBS has some kind of affiliate, or soon will have, in every one of these 100 markets?

Mr. LODGE. Certainly the vast majority. I would not want to answer on every particular one. I would have to go through the list to be sure I answered you correctly.

Mr. Cox. There are 51 of them in your basic required group; there are 34 of them in your basic optional group; you have 9 more in your supplementary group (one noninterconnected), and you apparently have affiliates that are not on any of your lists in Rock Island and in Evansville. You get joint service with one or more other networks in three markets. You are due to get an affiliation with the new V allocation in Richmond. I think that takes care of the 100.

Now, my point is that both of your plans, both plan I and II, would guarantee continued availability of desirable stations for at least two networks, and an improved, but still not quite equal, availability for a third—is that correct?

Mr. LODGE. Yes. The intention was to try to get as many stations as possible in the top 100 markets.

Mr. Cox. Your plan II would eliminate all use of UHF stations in the top 100 markets, and your plan I would, as I understand it, reduce your UHF affiliates from 23 to 8, of which 2 would be your

¹ The questions referred to relate to nonallocations matters and will be found under this date in the later volume on Network Practices.

owned-and-operated stations in Hartford (if that is approved) and in Milwaukee, and 6 would be stations in the 6 all-U markets that you contemplate?

Mr. LODGE. That is not strictly true. I believe there would be 1 or 2 other cities in which it would be necessary for one network or another to have a U affiliate.

Mr. COX. I am talking about CBS's position. In other words, you now have 23 UHF affiliates in the top 100 markets, I believe, and this would improve your position—coveragewise, at least—to the extent that you would now be down to your 2 owned-and-operated stations, and to the 6 markets in which there would be all-UHF service. In all the other markets there would be available 2 V stations at a minimum, or 1 V station, which you would have a good chance of affiliating with?

Mr. LODGE. Let me have Mr. Alexander check the figures.

Mr. ALEXANDER. Erie, for example, would be an exception. There might very well be some other markets in which we might continue our affiliation.

Mr. COX. I think you indicated you affiliated with the U station in Erie because it gave you less overlap than if you affiliated with the V?

Mr. LODGE. That is right. There might be other stations like that. I believe that the Lancaster-Harrisburg-York area is a similar case, too, where we would have to use a multiple number of UHF stations, just glancing through the list here.

Mr. COX. Are there as many as five, do you think, in which that would be true?

Mr. ALEXANDER. There might very well be more.

Mr. COX. There are only 4 markets in which there are only 1 V, and therefore in the other 12 markets where there is an intermixture of V's and U's, there are at least 2 V's and presumably CBS would have one affiliation and NBC the other?

Mr. LODGE. Presumably ABC has a chance to get it, too.

Mr. COX. They have that chance now?

Mr. LODGE. Yes.

Mr. COX. I think that someplace in your comments—not in your presentation this morning—you indicated that as far as individual UHF operators were concerned, some of them would be applicants for the drop-in V's that you propose, and you suggest legislation or regulation which would give them a favored status in that connection?

Mr. LODGE. I did not make that suggestion. That is one possible way in which it could be done, though.

Mr. COX. However, as I recall, there are not going to be as many facilities under this plan that are upgraded to competitive status as there are now UHF stations in existence?

Mr. LODGE. That is correct. They would not all be accommodated.

Mr. COX. This morning you were discussing this drop-in diagram of Mr. Merryman and you suggested a correction to that because of the offset operation. Isn't it true that the concept there is the worst possible degree of interference between VHF stations in zone I in that it presupposes the absolute minimum separation, whereas most of the stations actually in operation in the zone are at somewhat greater separations?

Mr. LODGE. I stated that. This was the example that Mr. Merryman used.

Mr. Cox. Himself.

Mr. LODGE. Yes. It indicated the effects of a drop-in. I indicated it was an extreme case. Others would be less than that.

Mr. Cox. I take it that these drop-in V's, while having certain very real competitive advantages over a U in the market, are not fully competitive with a full power V in the market.

Mr. LODGE. That is true, that in some directions at the closest spacings their power will be limited and they would be subject to some more interference, but I believe in all cases they would be quite effective stations. They would not be by any means a "dog" station, to use a colloquial term.

Mr. Cox. Would they provide simply a better grade of service, because they are V's within an area, or would they actually provide an area coverage that would be more nearly competitive with the full power V than is possible with a U in these areas?

Mr. LODGE. In most of the cases of the drop ins we suggested, their coverage would in most directions be quite comparable with that of a full-power VHF station. They would be restricted in certain directions by directional antennas.

Mr. Cox. Using a directional antenna they will get an elongated service area which is narrow from one side to the other?

Mr. LODGE. It will be pulled in a few miles—by that I mean 15, 20, 30 miles even—in certain directions, but I believe the service would be larger and better, and, of course, it would reach all receivers, which is not the case with the U's that are now there.

Mr. Cox. As I recall it, there are, I think, 14 markets in which these drop-in V's would be competing with 2 full-power V's.

Mr. LODGE. That sounds about right; yes.

Mr. Cox. Also, of course, your plan I recalls for 14 markets with 2 V's and 1 or 2 U's. I take it that those clearly are not fully competitive facilities, and you don't so classify them in your plan?

Mr. LODGE. No. Those are what I call the failure cases.

Mr. Cox. In other words, when you establish Louisville and Providence with 2 V's and a U, essentially that makes them, for the foreseeable future, 2 station markets?

Mr. LODGE. Except to the extent that I indicated that some of the work of others—in both of the cities you mentioned I think the ABC plan and the Storer plan had suggested other devices that might have effected a third VHF in those particular communities, so I was by no means inferring that I had all the final answers in that particular plan.

Mr. Cox. If they can find a V to put in there, it will be a drop-in V that would presumably then interfere with a V that you dropped in some place else?

Mr. LODGE. I think in both of those particular cases that would not be true.

Mr. Cox. As a matter of fact, I was interested to note that apparently the whole State of North Carolina—perhaps by accident of allocations—ends up with a series of 2 V-1 U markets, so that substantially, unless history reverses itself, that area would be dependent upon 2-network service?

Mr. LODGE. I think it would depend on the size of the market. You will recall I had another chart this morning, chart No. 3, which indicated the number of hours of network programming per market, and you will notice as you get down to the smaller markets you do not have 100

percent of the network schedule being carried in such markets. In fact, I suspect that if you get down to about market No. 90, or market No. 100, you would be pretty hard put to keep 2 stations pretty well loaded down with network business, with 3 networks.

Mr. Cox. From the standpoint of their being ordered by advertisers?

Mr. LODGE. Yes.

Mr. Cox. So that would, in effect, rather than giving simply 2-network coverage, it would give partial coverage of 3, plus local?

Mr. LODGE. Yes.

Mr. Cox. Now, your plan I calls for 6 all-U markets, and for 4 one-V and two-U markets, with, I believe you say, a total of 3.1 percent of the families in the country. Do you think that that is going to be enough to sustain UHF as a really important part of broadcasting, and to provide any incentive to further technical development?

Mr. LODGE. I indicated this morning that I thought a market of that size was sufficient to keep several manufacturers interested in trying to sell receivers in those markets, and that means developing them and having them available for sale. I don't know how much pressure there would be to improve transmitting equipment with that limited a market, so I would rather refrain from answering that question. I don't know.

Mr. Cox. I think you indicated, in answer to Senator Potter's question awhile ago, that the hopes of preserving UHF, except on this rather limited basis, are very slim. Don't you think that even this non-disruptive deintermixture that you discussed, and indicated didn't contribute much to the overall problem, would at least increase whatever benefits can be derived from this limited number of markets that you have left for UHF?

Mr. LODGE. It would certainly increase the number of islands of UHF by half a dozen or a dozen, whatever the figure was in the Storer plan. There have been several others. It falls far short, however, of meeting the community-station concept.

Mr. Cox. Well, your plan, of course, doesn't take care of the community-station concept either.

Mr. LODGE. Not unless you go to plan II.

Mr. Cox. Yes. So that if, through some deintermixture proposal such as Mr. Storer made, or through withholding additional V grants in UHF areas, you could increase the number of islands, you would have done that much more to stimulate manufacturing, you would have done that much more to guarantee a future for UHF, and at least in those limited areas you would have permitted the growth of community stations, if they were to become economically supportable?

Mr. LODGE. I believe that is correct.

Mr. Cox. I think in your second conclusion you state that deintermixture would reduce nationwide service and would involve a tremendous dollar cost. I suppose this is basically a widespread deintermixture that you are talking about?

Mr. LODGE. Mr. Storer, as I understand it, did not propose deintermixture in the sense of taking away service now on the air.

Mr. Cox. I think that is right.

Mr. LODGE. In the case of deintermixture as I used it, I meant taking stations off the air.

Mr. Cox. Well, then, would you be in favor of deintermixture in the sense of simply withholding V service where it doesn't involve eliminating stations not yet on the air?

Mr. LODGE. That is a very difficult question, and I don't think I can indicate a strong preference one way or the other.

Mr. Cox. I notice you state on page 13 of your statement that it is a close decision whether it should be modified.

Mr. LODGE. Yes.

Mr. Cox. Can you tell us any arguments against it, other than the fact that it is not a complete answer?

Mr. LODGE. Well, you always have the position of the men who have gone to the expense of going through hearings—some of them are under construction. I know of several who actually have made expenditures to build stations. They now have construction permits that have been issued.

Mr. Cox. That is strictly a personal consideration, which weighs only against the personal consideration, let's say, of the UHF operator, and which in both cases is completely subsidiary to public interest?

Mr. LODGE. You asked me if—for objections. I feel that it is kind of hard to forget the man who has fought through for 3 or 4 years to try to get a VHF, now has a construction permit, and may be under construction. If you rule that one out, I can't think of any very strong objections.

Mr. Cox. Basically, it gets down to the personal interest of the applicant?

Mr. LODGE. Yes.

Mr. Cox. Now, you indicated this morning, I think, that in a number of these areas, such as Fresno and Hartford, you thought that the bringing in of a V would provide additional coverage that is not provided either by U stations in those communities or by V stations from other markets.

Mr. LODGE. I should have included that in my answer earlier because that is a problem that is raised in all deintermixture—the price you pay in peripheral service that would be rendered. However, in the case of most of Mr. Storer's proposals, I did not include that because I believe that most of them already had one V on the air.

Mr. Cox. A great many of them did.

Mr. LODGE. Yes.

Mr. Cox. That would give at least one service in the area?

Mr. LODGE. Yes.

Mr. Cox. Now, are you familiar with the evidence in some of these deintermixture proceedings in which—at least it would appear—strong showings were made, or strong efforts were made to make factual showings that these white areas did not exist, and that therefore no additional coverage would be provided—particularly in the one case we have mentioned in the committee hearings here, the case of Evansville?

Mr. LODGE. I am sorry I have not followed those individual hearings.

Mr. Cox. As I recall it, there were uncontroverted affidavits in that case that, through actual survey, it was found that there were two acceptable signals in the areas which the V applicant claimed were white areas not served. Now, it is quite possible, isn't it, that in any

fairly closely developed area, that despite the inability of the U station to reach that far, there may be usable signals coming in from other places?

Mr. LODGE. Certainly.

Mr. COX. You have tied these plans of yours in with the economics, which certainly provide a sound basis, but isn't it true that plan I doesn't even provide for as many competitive stations in these top markets as Dr. Alexander says they can support?

Mr. LODGE. Mr. Alexander is here.

Mr. ALEXANDER. It is true. They make a step in that direction. They do not go the whole way.

Mr. COX. In other words, as I recall your tabulations, you felt that 3- and 4-station markets could support 422 stations, whereas I believe your plan I provides for 323—but some of which are U's in 2-V markets which would have a very limited life.

Mr. ALEXANDER. That is approximately correct, although 24 of those 422 are beyond the hundred leading markets, so the hundred leading markets, naturally—these figures shouldn't be taken to the last digit anyway. The hundred leading markets can, in that computation, support 398.

Mr. COX. Also, I think that you indicated that there were 78 communities which could support 4 stations.

Mr. ALEXANDER. That is right, 4 or more; the first 20—and that is a very rough estimate, rougher than the others—I presume could do with more than 4.

Mr. COX. Actually, plan I provides for 4 or more channels in only 12 of those, doesn't it?

Mr. ALEXANDER. I don't remember the exact number, but far fewer than could support it. That is why, in the submission to the FCC, there are these two appendixes—I believe, appendixes 7 and 8—which indicate, under each of plan I and plan II, how much further you could go within those plans toward 4 stations in each of the 100 leading markets. As you pointed out, many of the hardest cases occur in the top, not quite the top markets, because you can make New York and Los Angeles—Chicago already has 4—but just a little bit beyond that, you start running into trouble until you get down to about, I think, the 26th.

Mr. COX. The 26th.

Mr. ALEXANDER. That is, again, under the initial assumptions that Mr. Lodge made, that certain other assumptions that ABC made, for example, or others, might permit a few more markets, through moving in stations, and so forth, that we did not assume. There is a good deal of flexibility in smaller modifications, naturally, of these plans.

Mr. COX. Your plan, of course, is obviously and quite frankly designed to provide for the possible development of three nationwide networks of a fairly competitive character?

Mr. LODGE. That was our objective.

Mr. COX. I take it, though, that except for these possible fourth stations that could be put into some of the smaller markets, that your feeling is that with the present number of VHF channels available—and having substantially written off the UHF channels, except in a limited number of instances—

Mr. LODGE. Excuse me, to the extent that the excise tax might be dropped and ultimately give a means of getting UHF tuners in all homes, that hope I have to hold out.

Mr. COX. With those reservations, this is just about as far as you can go, and having gotten these three networks, the possibility of a fourth, the possibility of the development of substantial independent stations which would provide an outlet for independent program sources, those are quite remote?

Mr. LODGE. I am afraid that is the straitjacket we are in.

Mr. COX. I am interested in what our TV system would look like outside the 100 top markets. You made this morning the very valid point that you certainly have not denied television service to the areas not covered on your map, and I think if you check our hearings, you will find that that point was clarified at the time Mr. Merryman made it. What is going to be the situation outside of these 100 top markets? Will there be 166 competitive assignments that will be available to take care of the 1- and 2-station markets that Dr. Alexander says can support that many stations?

Mr. LODGE. I don't believe there is any great shortage of channels in the smaller markets at the present time, but how great that would become in the future is something only the future can tell. It could be there would be demand for a very, very large number.

Mr. COX. I think at this point, maybe, I had better ask Dr. Alexander what it is exactly he means by one of these markets. You indicate in your tables that there are only 217 markets with the necessary minimum 22,000 homes which can support TV stations. Does this mean that there are only that many which are within the range of a strategically located TV transmitter?

Mr. ALEXANDER. No, sir. The basis—and you can, as I said before, change the figures around by varying definitions by 5 or 10 either way—but within that margin, for variation, with differing definitions these markets were determined, first, by going over the list of all station points for which an application had ever been made, determining how many families were within various distances of such points, and not within the corresponding distance of points higher on the list.

In short, the concept of that last point is that the word "unduplicated" should really be before the statement that this includes all station points that can bring in 22,000 or more "unduplicated" homes, so that the principle—that word "unduplicated" is the principal factor which brings about that point, which is what one starts with if you start with the continental United States and the allocation plan, down to something in the order of 350 points. When you take those 350 where applications have been made, you then will shrink further by the so-called overshadowed points, leaving you substantially, and depending on how you define it, 220, let's say, 220 points, which are neither overshadowed nor have fewer than 22,000 families in their service area, defining again, there was one characteristic that I may point out that in defining overshadowing, I permitted any smaller station to have duplicated families that were more than 50 miles from the primary service point.

In other words, just not to incur an error there, I assumed that a station in a smaller community would have a fair share of families that

were within its service area that were closer to it and outside the 50-mile range of a larger station, even though possibly covered by the larger station. That is a special quirk of TV, but it gives you some idea of the basic philosophy involved in making that estimate.

Mr. Cox. Would it be fair to say that there are a good many communities, in the conventional sense of the word, which are large enough to support a television station by your standards, but which are not considered by you because of the fact that they also fall within the possibility of coverage from a larger population point to which you then allocate the three stations?

Mr. ALEXANDER. Well, I think that if I may state that a little bit differently, I would say that my interpretation of the economics of television today is that a station that covers let us say 50,000 families, all of which were well served from another larger station point, will not have an economic chance of survival. That is the point that I indicate. I do not indicate that some time in the future such stations will not. This goes both for VHF and UHF, incidentally. Remember, Mr. Lodge made the distinction that three different circumstances can operate to prevent a station from earning profits. One of those was the competitive disadvantage of UHF; the second was overshadow, and even if you take it independently, you may find places like St. Cloud, Minn., where VHF is assigned, where even by my computation that place could support a station, but the applicant has dropped his application because I believe he was convinced that he probably couldn't, because he is right on the edge of service from another larger station and felt that that competition would be too keen, so that to cut down in the number of communities from the 1,240 down around to my 220 includes this factor of the so-called overshadowing effect.

Mr. Cox. Isn't it true that the reason you say that this community, of sufficient size in and of itself to support a station, is not economically feasible is that it is not economically feasible for support through national advertising because the national advertiser will not buy that station if he can obtain coverage from New York?

Mr. ALEXANDER. That is not the reason why I selected it. That may be an explanation. That is an inference that may be drawn. I selected it merely from an empirical study of where stations could survive and where they could not. In other words, it is a much more difficult analytic problem to ask whether the support or failure of support of a station in St. Cloud was because national advertisers were not forthcoming.

I will say local advertising in TV, as in radio, is slower in coming than the other. At some time in the future perhaps this difficulty may be surmounted. I am not in the position to say it is only because of national advertising not being forthcoming that these overshadowed stations cannot do well. I think that there are a number of them which have VHF's. They might be able to say why they are having trouble. One of their reasons certainly will be because of a shortage of national advertising. I presume another one will be—and this is a presumption—that local advertisers or national spot advertisers, as well, are not attracted to the station unless there are some national programs there to attract the audience first. In other words, there is a value to adjacencies. There is a whole complex there which is very

difficult to analyze, naturally, which would prevent these stations from being as commercially successful as those.

Mr. Cox. Since it is overshadowed, the network doesn't affiliate with the station in that market, and therefore the national advertiser on a network basis never gets a chance to buy that market independently. He can only buy the larger market which is served by the metropolitan station?

Mr. ALEXANDER. That would be one consequence of not being affiliated. If affiliated, it would be doubtful if many advertisers would want it, which is the basis why, in the individual case, it would not get its affiliation.

Mr. Cox. Isn't it true that at the present time there are, aside from the stations in your top 100 markets, only some 160 program-originating stations in the country, as against the 166 that Dr. Alexander says can be supported in 1- or 2-station markets, so that unless your plan includes some method of survival for these, a good part of which are UHF stations, it is actually going to reduce service below the supportable levels, or at least provide no remedy that will preserve service fully to the extent that seems economically supportable?

Mr. LODGE. I think Mr. Alexander ought to reply to that more than I would. I would like to point out some you are speaking of are undoubtedly in the overshadowed areas and not in the distant areas, a number of the stations.

Mr. ALEXANDER. I am not sure I got your question. I would certainly not say that Mr. Lodge's plan would reduce any station. I think what the content of your question, as I understood it, is that the sixth report assigned channels to certain communities, and application have been put in for those channels where the present economics will not support stations. I mean I think there has been ample testimony before this committee and elsewhere to indicate that that has in fact transpired. In short, there is a problem in some communities of supporting a station; yes.

Mr. Cox. However, by your concentration on the development of 3 V stations in the top 100 markets, don't you doom, perhaps, a station in an overshadowed market which can survive as long as it doesn't have multiple competition from outside?

Mr. ALEXANDER. Well, frankly, I just don't know the answer to that, but if you want my opinion, you are asking: Will a station in a small community served by 2 VHF's from a large adjoining community be able to survive, but not if there are 3 VHF's in that large one?

I would say that my general feeling would be that there would not be a significant difference in such a case, where it is really an overshadowed market; that frequently 1 VHF is enough to overshadow a UHF station, and that the difference between 1 and 3 is not likely to be as significant as your question would imply. But, again, this is just an opinion; there aren't enough cases in which you can test that empirically.

Mr. Cox. Do you think Enid, Okla., is an overshadowed area?

Mr. ALEXANDER. I would have to check.

Mr. Cox. What you propose to do is to move the VHF station that is now in Enid to Oklahoma City. Now that clearly deprives Enid of a community service. It, I assume, does not give Enid an additional service because it is already served from the two Oklahoma stations.

All it does is to provide a multiple service for a slightly altered geographic area; isn't that true?

Mr. ALEXANDER. That is true. That is Mr. Lodge's question.

Mr. LODGE. That is absolutely right. It would shift from a community service station to one serving a much larger population.

Mr. COX. I assume this, of course, will be welcome to the owner of the station, but perhaps not so welcome to the people who live in Enid or in Eldorado, Ark., or the other places where you propose to move these?

Mr. LODGE. That is presuming they don't want the programs; they would get them on the Enid station after they move. I am not sure you can make that assumption.

Mr. COX. In other words, you don't think the desire for a local TV service is equal to that for network service?

Mr. LODGE. No. I don't quite see that you could conclude that the programs are not acceptable to the people after the move.

Mr. COX. Is it likely that a station located in Oklahoma City will support community projects in Enid, Okla., as well as one that is physically located in Enid?

Mr. LODGE. It would depend on a lot of things. If the station now signed on at 4 p. m. in the afternoon because they couldn't carry a very extensive program schedule, and if it ran 16 hours a day after the move, it could well be it would be better.

Mr. COX. Do you know, Dr. Alexander, whether there are any cities with less than 22,000 homes which now have television stations which are operating at a profit?

Mr. ALEXANDER. First of all, I want to point out that these are not cities of 22,000 homes. These are television markets. This is a very important point because a number of critics of my paper have frequently used that error to make it seem as though many cities with fewer than 22,000 homes would not have stations, when in fact they would, because their market would have 22,000 homes, so that I don't know, I don't know of any individual cases. You see, I work largely from statistics which are made public by the Federal Communications Commission, which do not reveal the individual station's operation. They are very careful not to reveal that.

Mr. COX. Do you know whether Grand Junction, Colo., or Twin Falls, Idaho, are buried someplace within the one-station markets that you calculate can support stations?

Mr. ALEXANDER. No. I can tell you by looking up my records whether these stations are computed by need to support. I am quite sure they can. They are able to, even though they are such small communities. They can go out 75 to 100 miles. When you draw a 100-mile circle that is a very large area, even is those States where the density of population is low. But I would guess, however, that—I want to make clear that my computation was designed to try to get the number of stations and not to apply to any individual instance. There will be instances, I am sure, where a community whose total TV area contains possibly 10,000 homes, it might make a go of the station—another one with 30,000 might not.

This was taken from an average relationship, which says essentially that, if you cut off at 22,000, you will have as many communities above it that cannot as you will have below it that can, so that it is an average relationship; and like any other average, it is made up of a composi-

tion of different quantities, so that I by no means want to be in the position of saying that no community with fewer than 22,000 families within, let's say, 75 miles, if it is a VHF station point—I do not want to say that no such community can support a station. What I want to say is, if you tally all such communities, you will find that as many of them can as cannot, so that that is the line which would give you the best estimate of how many, in fact, can support a station.

Mr. Cox. You indicated, I think, this morning, Mr. Lodge, that CBS is affiliated with 178 stations, or some number in that neighborhood.

Mr. LODGE. One hundred and seventy-eight markets. It is a larger number of stations than that.

Mr. Cox. In any event, in excess of the hundred markets that you are dealing with here. I take it, though, that presently and in the future, until those markets grow in size, the affiliation they get is of a lower order in terms of both revenue and programing than that which would be possible in the top 100 markets?

Mr. LODGE. Well, that, of course, is what the advertisers buy, and not what we limit them to artificially, or in any way.

Mr. Cox. In other words, you are going to be providing network service outside these 100 markets, but not on the same basis that it might well be feasible to supply it within the 100 markets?

Mr. LODGE. No. We actually have the same service available within and without. The number of hours per week of programing that a particular station gets flows from the desire of the individual advertiser.

Mr. Cox. As I understand this third exhibit you had, as you go down the scale, even within the top 100 markets, you decrease the number of hours that are ordered on these stations, and that that would extend well beyond the 100 markets, so that unless they get service through your program extension plan—is that yours or is that NBC's?

Mr. LODGE. Extended program service, I believe, is ours.

Mr. Cox. Extended program service. Unless they get benefits in that way, the network service that they get is on a more limited basis than that which is attainable in the top hundred markets?

Mr. LODGE. Yes. You said in asking the question, "You limit the number of hours," inferring that we limited the number of hours. That is not the case. It is the advertiser who does not buy.

Mr. Cox. I didn't mean that. The service that is made available, even though you are perfectly willing to provide it—

Mr. LODGE. And anxious to.

Mr. Cox. Is limited by the advertiser's willingness to buy these markets that are outside the hundred markets that you concentrated on here for your three services?

Mr. LODGE. Yes.

Mr. Cox. I notice that in your comments, although not in your statement this morning, you made a suggestion for further increasing the height of antennas in zone I. Do you still feel that that is desirable?

Mr. LODGE. I feel it is a desirable thing. I believe it would reduce the white areas in the country some.

Mr. Cox. By increasing the service area of the presently existing V's it will also increase the area of overshadow and also it will possibly reduce the future service areas of the drop-ins that you contemplate?

Mr. LODGE. It would have all of those effects. I believe that the magnitude of either the improvement, on the one hand, or the damage in the cases that you mentioned is greatly exaggerated. As far as I personally am concerned, I do not believe it makes an awful lot of difference whether it is or is not adopted.

Mr. Cox. You urge your plan II for the long range because you feel that the addition of a minimum of 7 V channels is perhaps the only solution that would permit the achievement of all 3 of these objectives that you have been discussing. Now that, I take it, these involve no loss in service, but it would involve dollar costs to the other services of a magnitude perhaps even greater than some of the costs that you outlined, but that this is a cost which would be borne by the viewer as taxpayer rather than as the owner of a TV set—doesn't it amount to that?

Mr. LODGE. I indicated carefully in my testimony I had no direct knowledge of what these costs might be. It could be the costs are too great to be considered. I do not know.

Mr. Cox. That is, quite clearly there would be a problem of relocation of services and the purchase of, in some instances, quite different equipment to permit the same thing to be done that is now being done on the VHF channels that would be necessary for this plan?

Mr. LODGE. That is the area in which we are not in good position to inquire, and I believe your committee is in much better position to find the facts.

Mr. Cox. Thank you very much, Mr. Lodge. I am sorry we have kept you all here so late in the day. We will convene in the morning at 10 o'clock in this room and hear Mr. Heffernan.

(Whereupon, at 4:32 p. m., the committee adjourned, to reconvene Wednesday, March 28, 1956, at 10 a. m.)

TELEVISION INQUIRY (UHF-VHF Allocation Problem)

WEDNESDAY, MARCH 28, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 a. m., in room G-16, The Capitol, Washington, D. C.

Present: Senators Pastore (presiding), Schoepfel, and Potter.

Senator PASTORE. The hearing will come to order.

Our first witness today is Mr. Joseph Heffernan, vice president of the National Broadcasting Co.

STATEMENT OF JOSEPH V. HEFFERNAN, VICE PRESIDENT, NATIONAL BROADCASTING CO., INC.; ACCOMPANIED BY WILLIAM DUTTERA, MANAGER, ALLOCATIONS ENGINEERING, NBC; DAVID ADAMS, VICE PRESIDENT, NBC; THOMAS ERVIN, VICE PRESIDENT, NBC; JOHN SONNET, COUNSEL; AND JAMES GREELEY, COUNSEL

Mr. HEFFERNAN. Mr. Chairman, members of the committee, my name is Joseph V. Heffernan. I am a vice president of the National Broadcasting Co. I appear here at the invitation of the committee to furnish information with respect to the frequency allocation phase of the committee's hearing.

At the outset I want to express to the committee NBC's appreciation for affording us the opportunity to come before you and state our position. We believe this hearing can serve a constructive purpose in developing the facts relating to UHF television, its potentials for public service if rightly handled, and the large measure of its promise which can be lost to the public if not so handled.

TV ALLOCATIONS AND THE SIXTH REPORT

We believe the Chairman of the Federal Communications Commission stated the fundamental issue at stake in the allocation of frequencies to television broadcasting when he said in December:

Basically at issue is how widespread a service can television become? (The Dynamics of a Dynamic Industry, an address at the Poor Richard Club, Philadelphia, Pa., December 6, 1955 (FCC 26209).)

We believe that full utilization of the 82 channels now allocated for television—the 70 UHF channels and the 12 VHF channels—offers

the best prospect for the growth of television as a nationwide competitive system. This is the objective of the Commission and a goal which NBC strongly supports.

In the notice of proposed rulemaking for its current frequency allocation proceeding—FCC Docket No. 11532, instituted by notice of November 10, 1955—the Commission stated that the objectives of the sixth report and order issued in 1952 were:

(a) At least one service to all areas.

(b) At least one station in the largest possible number of communities.

(c) Multiple services in as many communities as possible to provide program choice and to facilitate competition.

As a means to fulfill these objectives, the Commission allocated for television service the 70 UHF channels in addition to the 12 VHF channels.

Since the time the Commission's sixth report was issued, RCA and NBC have aggressively acted to improve transmitting apparatus, receiving apparatus, and television transmissions at UHF to assist in the expansion of the television service contemplated by the Commission's order. As a result of these actions advances have been made in the technical performance and in the techniques related to both VHF and UHF operation and experience have accumulated on the matters relating to television broadcasting encompassed by the sixth report.

In the allocation proceeding currently pending before the Commission a variety of proposals have been made suggesting changes in the allocation plan adopted in the sixth report. We have submitted comments in that proceeding suggesting measures we believe would be helpful in maintaining and strengthening the UHF service. We have taken this approach because we believe that the effective use of the 70 UHF channels, together with the 12 VHF channels, offers the best prospect for encouraging the growth of television as a nationwide competitive service.

In his testimony before you, Dr. Engstrom of RCA discussed allocation considerations against a background which he presented relating to technical development in the UHF field and the contributions to that development made by RCA and NBC. I shall deal with allocation considerations as they relate to broadcasting. In doing so I will refer to steps which can be taken now to help the situation and will indicate what we believe are limitations in some of the proposals advanced by others.

ACTION WHICH CAN BE TAKEN NOW

We believe that each proposal which offers promise of significant improvement in this field should be thoroughly and carefully evaluated by the Commission, so that it can develop a broadly based plan of affirmative action. This will take time, since it calls for considered analysis and resolution of detailed issues and for decisions based upon the long-range implications of these issues.

There are, however, some actions which relate to UHF which Congress and the Commission can take at once. While no single step taken now offers a magic solution, the actions we urge will help significantly in realizing the potential of UHF.

I shall state first in outline form the nature of the actions which can be taken now, and then I will discuss them in greater detail.

The Congress can :

Declare as national policy the goal of maintaining and strengthening the UHF service, in order to encourage the continued development of television on a nationwide competitive basis.

In aid of this policy, repeal the excise tax on all-channel color receivers. This would progressively relieve the circulation handicap which has been the greatest single drawback to UHF development.

In order to facilitate a Commission policy of deintermixture in implementation of this policy, the Commission should be in a position to permit the holder of a VHF grant to receive, without further proceedings, a grant for a substituted UHF channel resulting from deintermixture. If the Commission believes there is substantial question of its authority to follow such a course, Congress should enact the necessary legislation.

Senator PASTORE. On this very point, what do you think of the suggestion that has been advanced by some individuals that a possible solution along the first point you raised might be a resolution to the effect that all color TV broadcasting should be on the UHF band? Where would that lead? Would you want to make a comment on that?

Mr. HEFFERNAN. Yes, sir, Mr. Chairman. I am afraid that would lead to stopping color broadcasting, because color has not had an easy time getting off the ground, although it is now coming along fairly well; and the stations which, for the most part, are doing color broadcasting are the VHF stations, and if you limit it to UHF, there would be very few stations at the moment who could broadcast in color. It would just stop color in its tracks.

Mr. Cox. There is considerable expense, is there, in connection with equipping a station for color broadcast?

Mr. HEFFERNAN. Not, Mr. Cox, to broadcast network color.

Mr. Cox. But to originate their own?

Mr. HEFFERNAN. To actually pick it up in the studio does involve considerable expense, but the networks—that is, NBC and CBS—are equipped to do that at considerable expense, but once we feed it out to a local station, affiliated, there is relatively little expense involved in that station modifying its transmitter so that the transmitter will feed out the color signals, because that is all it has to do.

Senator PASTORE. Its progress in its development will be measured in terms of the quality and quantity of distribution at the broadcasting point, the local level?

Mr. HEFFERNAN. That is correct.

Mr. Cox. The problem, actually, for color now is the sale of color sets so that color TV programs that are made available will have an outlet?

Mr. HEFFERNAN. Yes. It is a circulation problem.

Mr. Cox. You feel, therefore, the best use that could be made of the shift to color would be to have all those color sets as they come into the market all-channel, if that can be encouraged through tax policy?

Mr. HEFFERNAN. I do, Mr. Cox. I discuss that in some detail later.

The Commission can :

Deintermix on a sufficiently broad basis to create a nucleus of predominantly UHF service areas from which UHF may grow and expand.

Encourage multiple owners with resources and know-how to undertake the operation of UHF stations in intermixed markets.

Encourage other qualified persons to undertake UHF operation in such markets.

Permit UHF stations to use directional antennas.

Permit UHF stations to use on-channel boosters and translators to more nearly equalize coverage with their VHF competitors.

Permit UHF stations to use 5 megawatts of power as an additional means to improve their competitive position with VHF.

REPEAL OF EXCISE TAX ON ALL-CHANNEL COLOR RECEIVERS

In the past 2 years active consideration has been given, with this committee's support, to the repeal of the excise tax on all-channel receivers. That would be black and white at this stage. The removal of this tax would have made such receivers competitive in price with VHF-only receivers and would mean that the circulation handicap under which UHF has labored would progressively diminish.

A more limited approach to excise tax relief is now proposed. This would provide such relief for all-channel color sets.

This limited proposal would mean little revenue loss to the Treasury at this time. It therefore avoids the principal basis on which the Treasury has opposed tax action while maintaining the compelling considerations of national policy which support tax relief for UHF. At the same time, it aids the development of the new industry of color television.

If all television sets now in the hands of the public could receive all UHF stations, as they can receive all VHF stations, it is safe to say we would not be here today. There would still be some technological differences in the extent and nature of coverage between a UHF and VHF station, but these differences would not present a fundamental obstacle to the maintenance and growth of UHF as a basic part of a national television system.

The obstacle to the development of UHF as an extensive national service is the circulation problem, which arises from the fact that in many intermixed markets only a portion of the sets can receive UHF while all can receive VHF. If the excise tax were removed on all-channel color receivers, it is reasonable to believe that all color receivers would be equipped at the factory to receive all channels. Thus, as color sets replaced or supplemented black and white sets now in the hands of the public, there would be a progressive growth in UHF set circulation on a national basis.

There is every reason to believe that color TV is at the threshold of rapid development. Taking NBC alone, the volume of color programming broadcast on the network during the current season is five times the volume of our color schedule during the past broadcast season. And for the coming broadcast season of 1956-57, commencing this fall, NBC is pointing to the goal of color programming every evening.

In addition, our Chicago TV station is being converted to color 100 percent, so that commencing just 3 weeks from now, all of its local programs which are regularly broadcast live will be presented in color.

With network color programing growing in frequency and volume, and with the growth in local color programing on the part of stations equipped to originate color, color set circulation will be stimulated to grow at a cumulative rate.

Exercise tax relief for all-channel color receivers would therefore mean that the growth of UHF set circulation would be directly associated with the growth of color sets. If the growing circulation of color sets becomes also available for UHF, which would follow from the excise tax action now proposed, this would be a vital contribution to the preservation and development of UHF.

If such tax action were taken now the very prospect of this progressive increase in UHF circulation would give a big lift to the development of UHF. There would, of course, be some revenue loss, but there are these points which heavily outweigh the loss.

In the first place, we should consider the tremendous help which excise tax action would give to the preservation of UHF as a critically scarce national resource, since it is only through the preservation of UHF that the Nation can have the extensive television service it needs and deserves.

This point depends in turn on the complexities of frequency allocation and frequency scarcity which are understood by this committee and the Commission by reason of their long experience in such matters, but it is not reasonable to expect that other Members of Congress and the executive branch of the Government would have anything like the same background in this area, and without it, are not in a position to realize the vital public considerations which establish the need to help UHF.

We refer to public considerations favoring excise tax repeal because they are and should be stated as public considerations. The relief is not sought to help manufacturers. Nor is it sought to help broadcasters as such. It is sought to help the public get the kind of television service it can get in only one way—the preservation and use of UHF.

I might say here that the discussion yesterday was helpful in clarifying that point, I believe, and I think the position of CBS is to be admired in the clarity and forthrightness with which they brought out that their proposals to develop three V stations in more big markets could be at the expense of the desirability of having more community stations in smaller markets.

They were forthright in that position and they therefore helped clarify the situation. Our position is a different one. We feel it practical to attain both objectives.

Senator PASTORE. Don't answer this question if you do not want to, but what is your feeling with relation to the number of stations in New York City? Don't you think you are overloaded in New York City?

Mr. HEFFERNAN. I should like to say, Senator, in respect of that, that New York City is allocated 1 station per 2 million people in

the metropolitan area. I know of no city that has so few per people involved. I know of no city of 2 million people that has only 1 station.

Senator PASTORE. Is it fair to measure it that way? Do you mean that for equitable distribution you have got to have a certain number of stations per people? Isn't it really the number of channels that may be available to any one person really an equitable way of measuring it? In other words, as a whole, people in New York City—any 1 patron of TV can turn on 7 channels. Yet you come to Providence and the best you can do is to tune in two channels. Why should the individual in Providence be deprived of the facility of seeing the third network shows at all times, and yet the person in Washington and the person in New York have the availability of so many different channels? I mean I do not see how you are going to effect an equitable distribution based upon so many channels per millions of people.

Mr. HEFFERNAN. Mr. Chairman—

Senator PASTORE (interrupting). Because it actually works out to a denial of overall availability to people in other parts of the country. I realize the sixth report set down as priority No. 1: "We will give at least one station to everybody." That is admirable as far as it goes, but as long as you have other people enjoying 7 channels, you are not going to get much content from people who are going to be confined to 1. In time there is going to be a little howl on the part of those people, and it is to be expected.

I don't know, technically, how you are going to unscramble it. I am not getting into that. I think basically the trouble started—of course it is easy enough to realize how we did start—but that is basically, I think, back of the trouble in New England where you have such terrific concentration in large cities, namely, New York, that raises havoc in making new assignments in parts of New England. Do you disagree with me?

Mr. HEFFERNAN. I do not disagree with your analysis of it as it relates to present operative stations in Providence. It was the intention of the Commission, the objective of the Commission—and it certainly is an objective we strongly support—that Providence should not be limited to two stations. Providence should have more than 2 stations, and if our proposals, and the action of this committee, and the Commission, and Congress would make UHF go and succeed, Providence will not be limited to 2. Now I would say this: That if, however, we are remitted to a system under which we have only 12 channels for TV broadcasting, as compared with 106 for AM broadcasting, and 100 for FM broadcasting, 12 marbles are not enough to play the game with and have the kind of a distribution that various communities deserves—12 channels are not enough. The Commission realized that from the start. I think everybody realizes it. If you have 82 channels you can do the job. That is why, in our view, it is so important that UHF be preserved and strengthened so that we can play this game with 82 channels and not with 12 channels.

Senator PASTORE. What do you have to say on the argument that has been raised here continuously with reference to the superiority of the VHF channel over the UHF channel in that there may be some places, like behind a hill or what have you, where you do not get such clear reception on UHF as you might get on VHF?

Mr. HEFFERNAN. Well, Mr. Chairman, Dr. Engstrom—I am not a technical man—Dr. Engstrom testified for RCA in respect to the technical aspects, and I stand on his testimony 100 percent. As I understand it, again, we must distinguish between today's circumstance and tomorrow's circumstance and developments. VHF has been commercially authorized and in operation for 15 years; UHF, less than 4 years. Now there is bound to be a distinction, if we can take a human analogy between the performance of the 15-year-old and a 4-year-old, and I do not imply the analogy, like all analogies, is perfect; but UHF should—and it is expected by the technical people—improve its relative performance. I think it fair to face right up to it that as of today there is a difference.

Senator PASTORE. What do you have to say with reference to the expressed attitude of some of the members of the Commission—and I think it is the majority viewpoint—that they should go on carrying out the spirit of the sixth report and order in allowing intermixture, with the understanding that if later on it becomes advisable to deintermix, that they would deintermix at that time. Do you think that is going to work out?

Mr. HEFFERNAN. They have announced that policy, and most of the grants which were in contest on the basis of that have been made so that the point is somewhat academic now. The Commission is in the position that they are either going to deintermix in respect to those grants already made or they are not, and we are past the point of whether they should be granted. They have been granted.

Mr. Cox. There are still a few pending.

Mr. HEFFERNAN. I think that is correct.

Mr. Cox. Don't you think the point posed by Senator Pastore will be very clearly raised as to whether this view of the majority is realistic, that they can make the grant and then, if at a later time they decide that they want to deintermix in Madison or Fresno, that they can reverse their position?

Mr. HEFFERNAN. There is no doubt they have the power to change it. It may be, from a practical standpoint, more difficult to do so.

Mr. Cox. In terms of the remedies available to the grantee, it may take some time to do so?

Mr. HEFFERNAN. It may take more time than if they had not done so. We discuss deintermixture. I will come to it. We are for deintermixture.

Senator PASTORE. I know you are. The thing that is troubling me is whether or not there is going to be any chance at all—I am speaking now of black and white. I agree with you on the suggestion that you have made with reference to this excise tax on color TV, but speaking now of black and white, do you see any immediate solution to the problem, really?

Mr. HEFFERNAN. I would say this, Senator—you mean to help UHF?

Senator PASTORE. Yes.

Mr. HEFFERNAN. I would say—

Senator PASTORE. I mean I am afraid, Mr. Heffernan—and I am not going to push you any more than anybody else has been pushed—but I am convinced that we are more or less kidding ourselves about this. Everybody skirts around this problem, but no one comes out and directly says "Look, let's face it." If you are going to keep on

intermixing, because the problem is now academic, and we know that this intermixing is actually destroying UHF, as such, in your black and white field, aren't we actually kidding ourselves by maintaining a further hope that this is going to survive? I realize if the entire TV world turns to be color TV—and it might well be one day—and if UHF can't be saved until such time as the manufacturers can be encouraged to manufacture all-channel sets through this excise suggestion that you have made—I can see some hope there. I can see some real hope, but what is going to happen to UHF until that day comes, if we have the process of 152 UHF stations dwindling down to 92, I understand, and with the representation made here that every day they are closing up shop, and the only ones that seem to have any prospect of surviving are those which are owned by the large networks.

Mr. HEFFERNAN. I would say this. I do think we are not kidding ourselves to say there is hope if the twin action suggested by us can be brought about. Deintermixture would have the effect of a holding operation. It would give a beachhead of substantial areas where UHF could operate successfully, and from that beachhead it could grow and expand. Excise tax relief, even more important in our view to the development and growth of UHF, would offer what the UHF people are looking for, light at the end of the tunnel. They do not need, they say, immediate profitability today. They need to be able to see the long-term solution, and the long-term solution would be offered by excise tax relief because then they would know that every day they keep slugging away at it, their circulation is gradually growing and the circulation gap between them and their V competitors is gradually diminishing, and the solution is there and it is only a matter of working at it in time. The problem today is they do not see a solution, whereas excise tax relief would give a solution.

Senator PASTORE. Would you want to comment on this: That unless the Treasury Department sees this suggestion in a favorable light—this eliminating excise taxes on all-channel color sets—that this whole thing might be lost?

Mr. HEFFERNAN. I would think that is fair to say, though I do not want to get in the midst of a constitutional situation. Obviously, Congress has power to pass such tax action as they want to take without Treasury approval.

Senator PASTORE. I am not asking you to pass any law now. [Laughter.]

Mr. HEFFERNAN. As a practical matter you are right, Mr. Chairman.

Senator PASTORE. Those of us on this committee have very strong feelings along that line, but when you speak to a man who has the responsibility of deciding where and how a tax should be levied and he is so far removed from this very pressing problem that we have, even on a very personal basis, through witnesses who come here and tell us very emphatically that unless some relief is given, "I have got to close down because I am losing money every month"—that leads me to the conclusion that we have got to make a very strong representation.

Mr. HEFFERNAN. That is exactly right.

Senator PASTORE. The only strong recommendation we can make must be predicated upon the principles expressed here by people of responsibility such as yourself.

If I ask you a direct question it is only to get a direct answer on the record, because I am afraid that unless we can do that this will be lost. Otherwise, it will be considered merely as a gimmick. I realize that the Treasury Department does not want to make indiscriminate exceptions on these rules, because every time you do that, you run yourself into trouble. The minute you eliminate an excise tax, let's say on an all-channel color TV set, you have the jeweler in my State who says, "Well, if you remove the excise tax on jewelry, I can sell more jewelry;" and you have the theater owner who says, "If you remove the admission tax at the theater maybe we can survive in showing moving pictures, because we are in competition with TV."

So you see, when you get down to making exceptions you have to have a pretty strong case. I like this argument that has been made here, that this exception is not being asked by the manufacturer. He is not asking for this relief. He is only saying this: "Look, if you expect me to put the added cost in the development of an all-channel set, the only encouragement that you can give me to do that—because after all, I am dealing with stockholders' money—you have got to give me some relief on this excise tax. Otherwise, I just cannot undertake it economically because I do not think it is the responsibility of the manufacturer to save this industry." I think he is willing to, and wants to, play his part, but he wants a little encouragement from Government, too.

Mr. HEFFERNAN. That is a most realistic observation, and a most encouraging one.

Senator PASTORE. You are saying categorically that unless we find some solution in connection with the development of color TV so that we develop all-channel sets—which the manufacturers cannot do economically unless we equalize this added cost by elimination of the excise tax on all-channel sets—it is your considered opinion that we might well see the demise of UHF?

Mr. HEFFERNAN. That is right, sir. Of course, we hope that will not happen. It could very well.

Senator PASTORE. We all hope and pray that that will not happen. That seems to be the likely prospect as we sit here this morning.

Mr. HEFFERNAN. I think it is fair to say that, and therefore, may I make one specific suggestion in respect to that? That possibly when we conclude this phase, which is the allocation phase, that your committee might want to come out with an interim report which the Treasury would have as the expression of the views of this committee, that would enable them to consider the thing definitively.

Senator PASTORE. Well, I am not letting out any secrets. We have already directed a communication to the Treasury Department. The chairman of this committee has graciously and very thoughtfully, I think, made it his responsibility and his business to have a talk with Mr. Humphrey about the matter. We are now talking to the various Members of Congress who have the responsibility of deciding whether this should or should not be done, but I think our position would be fortified if we had these very responsible people like yourself, and like the representatives of CBS and ABC, come here and say: "Look, this is not a frivolous suggestion, and unless you do this the likelihood of saving UHF on the TV scene will wane, and unless this is done in the public interest, we may end up with 12 marbles—instead of these 82 marbles that you are talking about and which are needed to

play the game." Once UHF disappears, I do not think you are going to revive it again.

Mr. HEFFERNAN. That is right, sir.

Senator PASTORE. It is disappearing so fast it isn't even funny; from 152 stations I think they have got it down to 90 or 95 or so. That is not very encouraging. If it continues at that rate, you are going to find the day when even the manufacturer of the set is going to say, "Look, we cannot get into the business of doing this, because we are not going to spend money on research and technical development on something that we can sell only at a ratio of one to a hundred of other sets." They are going to concentrate where the profits are. I don't blame them.

Mr. HEFFERNAN. That is exactly right, sir. The effect is cumulative once you start to roll down hill. I am very encouraged and appreciate the efforts which your committee has taken already along this line.

Senator PASTORE. We are not sitting on this thing. We are very much disturbed, but of course, whether or not we can sell it, or convince somebody else, is another problem. What problems will be posed for that committee, and for those people who have that responsibility, we do not know—because the minute they begin to make an exception, of course, then that snowball starts rolling, too.

Mr. HEFFERNAN. Yes, sir. May I say, in behalf of the point, that has in the past been the traditional approach of Congress and the Treasury not to place an excise tax on a new industry until it got started. VHF television was not taxed for 4 or 5 years during the period that it got on its feet, and it was not until the Korean war came along in 1950 that the tax was put on black and white TV. It got on its feet. It got strength. Now if color is given a chance to get on its feet and get strength, and the Treasury can come back someday, 5 years from now, and put the tax on when the thing is on its feet and when UHF is on its feet. That will be a different situation. It is not an irrevocable step. Congress sits every year.

Senator PASTORE. I am very grateful to you for those points.

Mr. HEFFERNAN. Just one last point on that: I appreciate, also, the fact that your committee is taking an interest in dealing with the Treasury, and I would hope that in addition to Treasury, other elements of the executive department would interest themselves, because they do make recommendations to Congress in respect to tax relief, because these considerations, as I have pointed out, are public considerations. It is the public which stands to lose if UHF goes down.

Senator PASTORE. Along that line, let me say this: There would be no better agency of the executive department than the Federal Communications Commission. Now whether or not they have done it, I do not know, but if they haven't done it it strikes me that they, together with the members of the committee, ought to join in this action and make a strong recommendation.

Mr. HEFFERNAN. They should.

Mr. COX. They have said they favored it.

Senator PASTORE. They have said they favored it, but whether or not they have made a strong representation is a horse of another color. I do not know if there is anybody from the Commission here, but I do say this—

Mr. COX. Mr. L'Heureux is here.

Senator PASTORE. Mr. L'Heureux, I say it for your benefit. It might be well for you to take this matter up with the FCC and tell them what our committee has done, and tell them of these representations made here, and it might be well and advisable for them, if they so feel, to direct a communication to the Treasury Department to explain to them the representations made here and that they ought to undertake, possibly, the suggestion of writing directly to the Treasury Department and say that they ought to consider this exception at this time, for the reasons already advanced.

Mr. L'HEUREUX. Mr. Chairman, I do not know just what has been done in the way of putting extra pressures upon the Treasury, but I shall carry your urgent message to the Chairman today.

Senator PASTORE. Well, that is right, and I do not like the word "pressure." No one is talking about pressure here but a strong recommendation that amounts to that probably.

Mr. HEFFERNAN. Such excise tax relief would of course have the incidental effect of helping some broadcasters—those in UHF. But as it does, as it helps them become established and profitable operators, it provides an offset to the revenue loss in excise tax relief through the revenue gain in corporate income-tax collections.

We therefore hope that the committee will continue its constructive efforts to obtain a repeal of the excise tax on the limited basis now proposed, and that it will bring to the attention of the Ways and Means and Finance Committees of the Congress, as well as the executive branch of the Government, the considerations of national policy which require support of such legislation.

DEINTERMIXTURE

At this point I do not want to burden the committee with semantics but I think it is important that we define what we mean by deintermixture. In this statement we use deintermixture in the sense in which it is now generally used in the industry. In that context, we do not suggest that any existing service be eliminated.

Mr. Cox. Would it be fair to say, however, Mr. Heffernan, that channels granted but not yet on the air could be deleted without reducing existing service in the sense that you are using it here?

Mr. HEFFERNAN. That is right. They are not existing service. They are granted but not existing service. By existing, we mean on the air.

Mr. Cox. So that you would be in favor of deintermixture to the fullest extent possible without actually depriving someone now receiving a signal of that type.

Mr. HEFFERNAN. That is substantially right. We favor it on a broad basis. There might be some local consideration that the Commission knows about which we don't know about, where in some situations they might not do it. We will leave that to the Commission because they are acquainted with local conditions. We do favor it on a broad basis. I think we are speaking of the same thing.

One of the important affirmative steps the Commission can take now to preserve and support UHF is to deintermix on a sufficiently broad basis to create a number of predominantly UHF markets. Without this, the public may not purchase all-channel black and white receivers in sufficient number to provide a market for the continuance

of manufacture of such receivers. But with deintermixture on the basis we suggest, UHF will grow in a nucleus of areas from which it can spread to others.

Deintermixture on the basis we have suggested would give immediate support for UHF, and excise tax relief as now proposed would complement this immediate support by providing encouragement now and assurance of progressive improvement in the long range. The two actions taken together would constitute an ideal combination for the maintenance of UHF as an indispensable part of the national TV service.

In suggesting deintermixture to the Commission in our comments filed in the Commission's current allocation proceeding, we proposed a number of specific criteria on the basis of which deintermixture could be applied advantageously and without disrupting or degrading existing service to the public. These criteria are:

The areas to which attention should first be directed for deintermixture are those which have considerable UHF circulation now in existence.

Mr. Cox. Would those be substantially areas like Madison, Evansville, Fresno, Miami, Springfield, Corpus Christi, and places like that where there are either no VHF stations on the air, or there is only one V and the U's in the area have been able to achieve a fairly high degree of conversion?

Mr. HEFFERNAN. There is another category as well, the category of areas to which two V's are assigned, but only one is now on the air, such as Albany-Troy-Schenectady. Those are candidates for deintermixture as well. They are a category of candidates, but in those, in accordance with our definition, the one V would remain, but only one, because if it becomes two V's—

Mr. Cox. The problem becomes too difficult?

Mr. HEFFERNAN. Then the problem becomes too difficult. There are the two categories, and by the way, on the white area point which was discussed yesterday, to the extent there is validity to that, and there is some validity to it, currently, by virtue of the present superiority in coverage of VHF over UHF, the existence of this second category diminishes that problem of white area, because in all those areas, there is one V existing, so that the white area problem, to the extent it is a problem, does not exist because there is a V there already and it would remain. Therefore, to the extent that white area point has validity it applies only to the other category of candidates for deintermixture which are presently all U and are proposed to remain all U.

Mr. Cox. In those areas, however, the loss of additional coverage which might be sought under the Commission's first priority in the sixth report would be a price that would be paid, on the other hand, in order to preserve UHF so that its other priorities of local community service and of multiple service could be more easily attained?

Mr. HEFFERNAN. I think that states it fairly, but I think you would have these further compensating values, that it states it as it is currently. If UHF progressively improves, as it is believed and hoped that it will, then you progressively diminish the discrepancy in coverage; and secondly, there are other devices by which UHF stations can reach out to cover areas, if they are significant population areas, that are not covered from the main transmitter, such as boosters, satellites—

proposals which are now before the Commission for adoption in part, some of which have already been adopted. To take the upper Connecticut Valley for example, we have an affiliate in Springfield, a UHF affiliate. He covers Holyoke, but going on up the Connecticut Valley by use of a booster or a satellite, he might reach into Amherst, he might reach into Greenfield, he might reach into Brattleboro, Vt., continuing up the Connecticut Valley. Where you have cities of that sort that wouldn't be covered from the main transmitter, devices exist, at relatively low cost in relation to the additional coverage attained, by which the UHF could diminish that difference.

Mr. COX. So that even the present failure to extend the service as fully as might be possible by granting an additional V is only a temporary failure to expand service?

Mr. HEFFERNAN. It is believed and hoped to be, but then I am referring to these other devices which are currently available to pick up significant population areas, such as boosters, satellites. I say currently available—currently proposed by the Commission in respect to boosters, presently available in respect to satellites.

VHF channels which would be displaced as a result of deintermixture would be used, whenever practical, to increase competition and service to the public in major VHF markets.

I think the significance of that is clear. It means you get a double dividend from deintermixture; namely, not only do you improve the chances of UHF to survive and grow in the areas deintermixed, but the V channel, which is displaced by deintermixture is not thrown away. It is used in another area to increase V competition in that area and make that a three-V market in many instances.

Mr. COX. If you take a V from Hatfield, you can place it in Louisville and give that a third service, or you can take a V from Madison and put it someplace else where it will be useful in expanding service.

Mr. HEFFERNAN. Without regard to those specific instances, in general, that can be done. I think in the case of Louisville it can be accomplished without any degradation of service, not in the particular way in which you spoke. I think that is important, because Louisville is one of the largest markets in the United States that has only 2 V's assigned, and it would be possible, we believe, to assign three V's to Louisville without degradation of service.

In markets to which at least three commercial VHF channels are now allocated, no deintermixture would be undertaken.

In any market which becomes a predominantly UHF market as a result of deintermixture or which now has considerable UHF circulation, no new commercial VHF allocations would be made.

In connection with deintermixture on this basis, situations will arise where a UHF channel will be substituted for a VHF channel which has been granted to a CP holder who is not yet in operation or who commenced operation since the institution of the Commission's current allocation proceeding. In these circumstances it would be desirable if the holder of such a CP could be granted a CP for the substituted UHF channel without further proceedings. This would enable the additional service to the area to be instituted without delay. If the Commission believes that it needs additional authority to follow such a course, we recommend that the Congress enact legislation specifically providing for such authority under these circumstances.

MULTIPLE OWNERS AND OTHERS SHOULD BE ENCOURAGED TO ACQUIRE UHF STATIONS IN INTERMIXED MARKETS

NBC's views on the importance, from the standpoint of the public's interest, of permitting multiple owners of television stations to acquire UHF stations are well known. Even before UHF channels were made available for commercial use, NBC asked the Commission to amend its rules to permit owners with know-how, experience, and resources to undertake part of the task of furthering the commercial development of UHF.

More than a year ago the Commission did so amend its rules and shortly thereafter NBC contracted to purchase UHF stations in two intermixed markets—Buffalo and New Britain. The station in Buffalo had gone off the air and was literally raised from the dead by our action. Three VHF stations are assigned to Buffalo, so the going will not be easy. However, it is significant to note that following the Commission's approval of our acquisition of the Buffalo UHF station, an application for another UHF station in Buffalo was filed and has been approved—indicating the confidence in UHF's future in this market as a result of our activities in support of UHF.

Mr. Cox. Would that be largely because it is felt you would be able to achieve a degree of conversion which would then be available to additional UHF operators?

Mr. HEFFERNAN. I think that is a fair statement; but you also notice that Mr. English, testifying here before, I believe, another committee in Washington last week, stated that our going in Buffalo would also be helpful to his UHF operation in Erie, because Erie, as you know, is to the west of Buffalo, so that as UHF circulation grows westward from Buffalo, it will tend to come to an area between the two cities, which will be helpful to him.

Mr. Cox. That is, people will convert to get a choice of 2 signals where they might not for 1?

Mr. HEFFERNAN. That is right; people midway between; plus the fact that the word will get around from Buffalo, down to Erie, which is relatively close by.

We took over the UHF station in Buffalo on December 30 last, and moved at once into a vigorous campaign to lift the circulation of the station and thus cut down the disparity in circulation between it and its VHF competitors. We are building new studios, going to the full power of a megawatt permitted under present rules, installing color equipment for both network programs and local color originations, expanding hours of programing, and bringing these facts to the attention of the people of Buffalo with an extensive promotional campaign.

As I mentioned before, we have also contracted to purchase a UHF station in New Britain, and our application on this matter, which has been designated for hearing, is before the Commission. When our New Britain application was filed, two holders of CP's for UHF stations in the Connecticut Valley filed statements with the Commission in support of our application, pointing out how our operation there would help all UHF. We expect that a hearing date on our application will soon be set and believe that the hearing can be expeditiously concluded.

As soon as we are in a position to operate in New Britain, we intend to conduct the same type of aggressive campaign to help UHF that is already underway in Buffalo, and we believe that the results will not only be beneficial to UHF in the Connecticut area but will be an encouragement to UHF throughout the country.

In this connection I would like to point out that there are many other broadcasters who currently own and operate multiple VHF stations. A few of these are helping UHF by the operation of at least one UHF station in intermixed markets, but the great majority of them do not have any UHF stations. A strong declaration of national policy in support of UHF, followed by specific steps by the Commission to implement that policy, should in itself encourage these broadcasters to undertake UHF operation, and thus lend their know-how and resources to assist in UHF development. Some of these broadcasters are also prominent publishers, who could provide the additional assistance of widespread promotion of their entry into UHF.

In our view, those who have experience, resources, and basic interests in television and electronics should be encouraged to help the cause of UHF by undertaking the operation of at least one UHF station.

Mr. Cox. Is it your major point in this connection that these other multiple owners, or people in strong positions, should be encouraged to do this, or that further relaxation of the Commission's multiple ownership rules would be desirable?

Mr. HEFFERNAN. The latter is not my point, sir.

Mr. Cox. In other words, you think the present rule allowing 5 V's and 2 U's is ample, and that some others should carry part of the burden that NBC and CBS have undertaken by attempting to promote UHF through operation of their stations in intermixed markets?

Mr. HEFFERNAN. That is generally correct. I do not want to limit the credit, however, to NBC and CBS.

Mr. Cox. Mr. Storer also?

Mr. HEFFERNAN. Mr. Storer has undertaken one in Miami.

Mr. Cox. And one in Portland?

Mr. HEFFERNAN. Which was not a prefreeze market, and WDSU, which is not, however, a multiple owner, but it is to its credit that although it is not, it has undertaken a U in Baton Rouge, and there are a few others who are doing so, and to their credit. But my point is that there are a number of VHF operators, multiple owners, who have profitable V operations, who could well afford, who have the resources, who have the know-how—they are experienced broadcasters, they know how to operate a broadcast station so they are not going to slip for lack of know-how; if they got in and publicized their efforts, the very fact that they are going in—in this industry, the word gets around very rapidly—the fact they are going in is an encouragement to UHF as a whole.

Mr. Cox. I take it that in that connection you would feel that the effort should be made to encourage multiple owners, or other people in a strong position, to go into intermixed markets with U's rather than to simply purchase a station in an area which is already all UHF, where conversion is already achieved; that is, their special contribution can be in extending this service in areas where it either now doesn't exist or where it is having difficulty?

Mr. HEFFERNAN. That is correct, Mr. Cox. They should do a pioneering job, is my point. There is really no great difficulty in making a success of UHF in a market that doesn't have V competition, because UHF technically does a good job in those markets and they are doing all right. The problem is to make a go of it where the circulation problem exists, but my point is they can afford to ride it through.

A point further on encouragement is that if we got the excise-tax relief and the deintermixture action, those points themselves would be the encouragement to people to jump in and, I think you might see, if those two actions came about, I think you might see a scramble for UHF channels that would rival the Oklahoma land scramble. You might see it, because television stations are something that people very much want to get into, where they are successful, and they don't have to be presently successful. It is the prospect of success that will bring them in. While it is true that a number of stations have gone off the air, every fellow who is in a position to hold on to his grant has done so, because he realizes the potential for the future is there, if these actions come about.

In that connection, Mr. Cox, of course, time is of the essence, because our point on deintermixture is that we need a beachhead from which we can grow and expand, and we need excise-tax action. Unless these actions occur soon, it may be too late.

BOOSTERS AND INCREASED POWER FOR UHF

The Commission's proposals with respect to boosters and maximum power of 5 megawatts for UHF would permit UHF stations, where they desire to do so, to improve their coverage position in relation to their VHF competitors. These are desirable objectives, and ones for which the Commission deserves credit.

If the Commission authorizes the operation of UHF stations with maximum power of 5 megawatts, it would, of course, accelerate the time when commercial models of equipment for such operation would be available. The Commission has rightly proposed that its rules should not stand in the way of an improvement in UHF station coverage.

As far as boosters and translators are concerned, such technical auxiliaries can, under certain circumstances, aid UHF stations in providing more effective coverage by filling in shadow areas which fall within their service areas, thus helping on the so-called white area point.

Although the application of these devices requires analysis of the specific conditions in the particular area which may be involved, we believe that the authorization of booster and translator stations, under suitable circumstances, offers an additional technical means of improving the effectiveness of UHF operations.

Mr. Cox. I take it you feel, Mr. Heffernan, that this proposed increase to 5 megawatts of power would substantially improve the performance of UHF?

Mr. HEFFERNAN. It would.

Mr. Cox. That is, both in terms of some extension of its coverage area, and of improvement of the quality of service within the area?

Mr. HEFFERNAN. That is right, both aspects are important.

I have now covered the affirmative steps we have recommended to the Commission and which we present to this committee as measures in aid of UHF and the development of a national television system based on a multiplicity of facilities. I would like now to comment briefly on other proposals which we believe have questionable or limited value.

PROPOSALS TO OBTAIN ADDITIONAL VHF CHANNELS FOR THE
BROADCAST SERVICE

This proposal looks to the possibility of obtaining the allocation of additional VHF channels from other users of spectrum space, particularly the military. While we agree that this and related proposals should be examined, we feel that this particular suggestion has little promise, for several reasons:

In the first place, even if several additional VHF channels could be obtained, these plus the existing 12 VHF channels would fall short of the number needed. In adopting the Sixth Report it was the Commission's aim to provide at least 3 stations in the first 140 markets. In the crowded northeast section of the United States this could not be fully accomplished, however, even with 82 channels. It is obvious from this how inadequate a plan would be based on 12 or 15 channels.

While a few more VHF channels would provide some improvement in a limited number of markets, it seems unlikely that such additional channels could be made available soon enough to provide any immediate, or even near-term relief.

If additional channels were made available, they would pose a new conversion problem with respect to the sets already in the hands of the public, which now number over 37 million and which would have increased in number by the time any such additional channels were available for operation.

And finally, if a few more VHF channels were made available, the preoccupation of the industry with how and where to use these would inevitably prejudice the further development of the 70 UHF channels during the entire time that the allocation and disposition of these few VHF channels were in contest.

Mr. Cox. So that you would exchange for a relatively inadequate group of additional V channels the much more numerous UHF channels, if only these other problems can be dealt with?

Mr. HEFFERNAN. We are fearful that would be the inevitable effect, and I think in comparing this numbers game we should look to the fact that in radio, in AM radio, we have 106 channels, and constant demand for more. In FM, 100. The concept of 12 or 15 is one that the Commission knew from the beginning wouldn't work, and won't work in terms of satisfying the need.

PROPOSALS FOR VHF "DROP-INS" BY REDUCTION IN MINIMUM MILEAGE
SEPARATIONS AND USE OF VHF DIRECTIONAL ANTENNAS

Another series of proposals before the Commission looks toward making room for additional assignments of the present 12 VHF channels by reducing the minimum separation between stations. Various methods have been suggested to reduce the interference which would

result, including the use of directional antennas, cross-polarization, and reduced antenna heights and power.

In our comments to the Commission in its allocation proceeding, we urged that before any action along these lines is taken, the subject should be thoroughly studied and experimental data assembled on actual performance in various types of situations.

We come now to "drop-ins," and here again we have a definition. We define a "drop-in" as meaning a station which does not conform to the present rules with respect to station separation, which we think is the commonly used meaning of that word, though sometimes "drop-in" is used in the sense of putting in one that does conform, while one which does not conform is called a "slug-in."

The danger exists that the use of VHF "drop-ins," with reduced separations between stations, will result in a degradation of service or a deprivation of service, particularly to millions of rural and small-town viewers in populated areas between metropolitan centers.

Some who advocate drop-ins frankly concede this, but seek to minimize it by reference to service to the farm and smalltown populace as—I am quoting their comments—"fringe" service. In our view this is one of the major policy questions for resolution by the Commission and cannot be dismissed, as do these advocates of drop-ins, by characterization of rural service as fringe.

A principal defect of the several drop-in proposals is common to all of them. They would so prejudice the development of UHF, by transferring the industry drive to the discovery of how to squeeze new stations into the 12 VHF channels, that the 70 UHF channels could be lost to television broadcasting. Thus the drop-in approach could have the effect of eliminating UHF without providing a satisfactory substitute, since the VHF-only system which would be left after the loss of UHF would be both inadequate in number of channels and degraded as to quality of service to rural and small-community viewers.

Mr. Cox. Isn't it also true that not only would effort to concentrate on this occupy much of the attention of the industry, but that in tending to increase the concentration of VHF stations, particularly in zone I, it would still further complicate the chances of survival of even existing UHF stations in those areas and almost completely rule out the development of additional U outlets?

Mr. HEFFERNAN. I think that point is very well taken, extremely well taken. It could very well have the effect of killing UHF and thereby eliminating the potential for community service which UHF provides today—actually provides in some operating stations, and the great potential is there for development, once we lick this circulation problem, to which excise tax relief is the key.

Certain comments filed in connection with the Commission's allocation proceeding and in part repeated before this committee indicate considerably more optimism about decreasing mileage separations by the use of drop-ins than we believe is warranted. For example, the comments of one company state in bold heading that VHF mileage separations can be reduced "slightly." But the text of its comments and reply comments make clear that it favors in some instances a reduction of cochannel separations of more than 45 percent.

On this subject we have recommended to the Commission that proposals involving a change of standards to permit VHF drop-ins be

analyzed with great care, so that action designed to obtain a greater utilization of the VHF channels will not have the byproduct effect of producing an overall degradation of service.

We have also urged that any modification in the present standards should be accomplished only by the adoption of a new plan. A case by case approach, in which the present standards would be relaxed to solve individual problems, will inevitably result in a progressive deterioration of service to the public. We have, therefore, suggested that the Commission deal with a revision of the present allocation plan in terms of a modified overall plan based upon the following principles:

A modified plan should be predicated upon channels actually available for commercial television use at the time of the plan's adoption.

A modified plan should allow for substantial expansion of television service over a considerable number of years.

No modified plan should be adopted which results in degrading or destroying rural and small community service.

The paramount consideration in the adoption of any plan should be the interest of the public.

I want to say, in dealing with this subject of drop-ins, that we are not opposed, and we are sympathetic, to the desire of expanding the number of markets to which three VHF channels can be assigned, but as I indicated earlier, that can be done in substantial part as a byproduct of deintermixture, by virtue of the V channels displaced by deintermixture which move to larger markets.

Further, I think it important to recognize that the need for three VHF outlets in many markets, which has been referred to, is in part an allocation problem and in part a problem of getting cases decided before the Commission. For example, last fall, a petition was filed, styled: "Petition To Revise Television Allocations Standards and the Table of Assignments." That petition was based on an exhibit—there was an exhibit attached to that petition, referring to clearing in various markets.

The first four of those markets were Boston, St. Louis, Indianapolis, and Buffalo. In all of those markets, three V's are assigned, though not now on the air. Now that, I submit, is not an allocation problem. But again I want to say I am sympathetic with the need to increase, wherever practical, the number of three V's in major markets, provided that is not done to the prejudice of a long-range, sound allocation plan, including the importance of the maintenance of the concept of community stations.

CONCLUSION

In its allocation proceeding the Commission is faced with immediate problems. But an allocation proceeding looks to the future as well. The sixth report sought to do this by the allocation of 70 channels in UHF.

UHF has now had a commercial trial of a little more than 3 years. In that time some UHF stations have proved a success; some have not. The Commission has recognized that in the latter instances economics may have been a factor. It is naturally concerned whether its current allocation plan may also have been a factor, and it acted wisely, we believe, in asking comments from all interested persons in respect of that plan.

The comments which have now been filed with the Commission, taken as a whole, reflect a broad awareness of the important public reasons for preserving the 70 UHF channels, as well as the 12 VHF. We believe those who have spoken out for this position have taken the long-range and statesmanlike view.

An example is the letter of President George Meany to the Chairman of the Commission, filed as the comments of the AFL-CIO. He said in part:

* * * At stake here is whether the American people are to eventually have a nationwide system of 2,000 TV stations, or to be cut down to a system of scarcity of stations. * * *

* * * the Commission should preserve and encourage as full use as possible of the 82 channels. * * * Anything else would be a disservice to the American public.

If he, President Meany, and the many others who have taken this position are right, it follows a course that an allocation plan based on 12 or 15 channels, with or without lowered standards, is of doubtful utility as a long-range policy of allocations.

The national policy with respect to television broadcasting calls for a nationwide competitive system based on the maximum practical number of facilities. The full and effective use of the UHF channels offers the best prospect for realizing this goal.

The decisions to be made now with respect to the future of UHF television are not decisions for the next 5 or even 10 years. The effects of these decisions will be felt throughout the foreseeable future.

If our generation fails to lay a broad foundation for UHF service in the 70 channels reserved for that purpose, then other communication services will move in and make use of that part of the spectrum. If this happens, this spectrum space will forever be lost to broadcasting and no other band of frequencies anywhere near as well suited for television is available. The issue, simply stated, is shall the 70 UHF channels continue to be available to broadcasting or shall they be lost to other radio services?

We believe the Commission showed great foresight in earmarking this frequency band for the expansion of television. It is needed for that purpose, and the Government and the broadcasting industry can and must find a way of preserving UHF as a broadcasting service in the interest of all the people. This will not be easy, but when we look back on the miracles already accomplished in this country in the field of radio and television, we are encouraged to believe that this, too, can be done.

We do not suggest that Congress and the Commission alone have the power to establish UHF. The future success of television broadcasting in the UHF requires active support by the Congress, the executive branch of the Government, the Commission, the broadcaster, and the public.

However, there are actions which can be initiated at once by the Congress and the Commission. The Congress can make a vital contribution by promptly declaring that the national policy calls for preserving and strengthening the UHF service, and by enactment of the limited excise tax relief to which we have referred.

These actions would be of immediate and incalculable value to the cause of UHF.

For its part, the Commission can act at once to preserve and strengthen UHF by deintermixture and the other steps we have

suggested, and it can at the same time proceed with its detailed analysis for other action in the light of its expert knowledge of allocation principles.

Thank you very much.

Mr. COX. Are you familiar in general, Mr. Heffernan, with the testimony of George Storer, before the committee, with regard to his plan, which I think was substantially encompassed in his comments to this allocation proceeding?

Mr. HEFFERNAN. I have read Mr. Storer's plan, or have been told of it.

Mr. COX. The only point I was interested in was whether you thought, not in all details, but whether a program of that order of magnitude would hold real promise, if it could be effectuated, of providing the sort of stimulus and guaranteed continued existence for UHF and incentive to the development of better equipment, which would be necessary to really keep the thing moving along?

Mr. HEFFERNAN. I will come to your question. I want to say generally, our position is that the Commission should deintermix on a broad basis, by which we mean to give a substantial basis. I think there has been a slight misinterpretation of Mr. Storer's proposal. There was a reference here to 25 markets. Actually 24 markets are affected in the Storer plan. However, 14—6 to all UHF, 8 to 1 VHF—are the so-called strictly deintermixed markets, and the other 10 are markets which become—9 become 3-V's and one 4-V's. So that 24 markets are affected, but actually 14 markets under the Storer plan are direct beneficiaries of deintermixture in the strict sense.

Mr. COX. It is in those markets that he says there are 20 million people and 4 million sets, I believe.

Mr. HEFFERNAN. I am not sure he makes that statement, but I would say this: That taking the successful UHF markets of today and adding 14 or more markets—it could well be that more markets than 14 can be found for deintermixture—in my opinion, that would be a substantial beachhead from which UHF could grow and expand. Because the problem here, the beachhead problem, is this: That unless there is a sufficient public demand for all-channel sets, manufacturers won't continue to make all-channel sets, if the public is not broadly asking for them. There is no point in making them and putting them in the warehouse in inventory. If they are not sold and put into the hands of the public, they don't do any good. But my answer to the question of "Would 14 plus existing successful markets be a substantial beachhead?"—I think it would, and I would hope, however, that the 14 could be increased somewhat because our own view is that the Storer plan—that alternatives to the Storer plan are available which are better.

Mr. COX. Have you made any study of the number of other markets in which this might be done?

Mr. HEFFERNAN. We do not have a precise number, no, because we frankly have felt we should stay away from that for two reasons: We are personally interested, for example, in the Connecticut Valley area, and it seems a little unseemly for us to come here speaking, as we want to speak, of the considerations of public interest that generally relate to this problem, and at the same time plead our cause in an area where we have a personal interest. If we plead for deintermixture in the Connecticut Valley, that detracts from the general value

of our testimony, because they say: "They have a personal interest. They have got an ax to grind, and that is why they want deintermixture." That is not the reason we suggest deintermixture. We suggest it as a general policy in the interest of UHF and its growth and development. But I would say this, Mr. Cox, I don't really think the basic question on deintermixture that has faced the Commission has been "where"—it has rather been "whether"—whether to deintermix. Hamlet's question, and the difficult one, "To be or not to be," was not how to take his life, but whether to take his life.

Mr. Cox. Do you know—this, of course, is asking perhaps the question of the wrong person, but do you know what the arguments are advanced against deintermixture on the kind of basis that you are proposing, not on an overall basis, but on a basis sufficient to provide a substantial UHF or safe UHF area?

Mr. HEFFERNAN. I thought that Mr. Lodge yesterday referred to the point that a fellow who has presented a case for a single channel that is assigned, let's say, in a market and has pursued an application before the Commission for a number of years and spent a lot of money on engineering and lawyer fees, has built up a certain equity in his own favor, and I think it is fair to recognize that he has. It is a policy question to weigh that, plus other local considerations which may exist, which he didn't mention, but I am sure would recognize, that other local conditions may exist in favor of a grant as against the considerations, of which I think you are aware, which favor deintermixture. That is a balancing. That is a policy decision to be made by Government representatives themselves, by the Commissioners. It is a policy decision as to whether the equities of the one outweigh the equities of the other.

Mr. Cox. This personal situation of the individual V applicants, plus the claim of added service on the fringes of an all-U area, would be, so far as you know, about the only factors that enter into the calculation in opposition to deintermixture?

Mr. HEFFERNAN. There is the situation that would apply to us in Buffalo, where three V's are assigned to the market. I don't think there is any logic—or put it this way, I don't think a persuasive case can be made to deintermix a market where three V's are assigned in the allocation table, because there is no serious problem of getting equally competitive service in that market.

That applies to Buffalo, perhaps—it applies to Buffalo and elsewhere. We would not urge, for example, that Buffalo be deintermixed, even though on the first of our criteria there is substantial UHF circulation in Buffalo, roughly 25 percent. It is a long way to go, but it is substantial in that sense. There is that argument on the other side, appropriateness.

Mr. Cox. Could you tell us, generally, how many UHF affiliates NBC has now?

Mr. HEFFERNAN. Thirty-nine.

Mr. Cox. How many of those are included in your first hundred markets?

Mr. HEFFERNAN. It is 15, possibly 17, the other 2 being on a somewhat occasional basis.

Mr. Cox. I realize, of course, your problem there is one of being competitive with the other networks; but I think there has been considerable testimony, of course, that one of the problems faced by UHF sta-

tions in intermixed markets is their difficulty in getting a full affiliation, even where they may be the third station in the area, because of an attitude which they may attribute to the network, but which perhaps may be more properly attributable to the advertiser in turn, but is there any possibility of revision in affiliation practices which might contribute to the well-being of UHF?

Mr. HEFFERNAN. I want to say on behalf of NBC and our policy on affiliation, I think we have—and I don't say this critically of others, but I do think we are entitled to credit for being willing to accept, in view of present disparity in coverage between UHF and VHF, we have been willing to accept a certain handicap, measured handicap, to our network in UHF affiliations that I think is to our credit.

We have, for example, affiliated the UHF station in Norfolk. It was on the air down there. It was available to others, and when the VHF station, on which both NBC and CBS had been putting their programs—we on a first basis, and CBS on a secondary basis—when it went off to CBS on a first basis, instead of our taking second place on the pole as they had done, we went to the UHF station. We went in with a promotional campaign to help it, and we have been with it ever since, and we have helped it build circulation; and we have on 2 separate occasions torn up our contract with it, and given it a new, 2-year contract from that date, which we were not obligated to do. We have done that in spite of the fact that another V is assigned to the market and may come on at any time. We have shown, we have been willing to stay with that U and have committed ourselves by contract to do so for the maximum period permitted.

We also, I think, deserve credit for the fact that we have in our basic lineup situation six UHF stations. No other network has any basic UHF affiliates. We have six.

Mr. Cox. Does your contract in Norfolk have a provision that permits you to cancel it if and when the V comes on the air?

Mr. HEFFERNAN. It does not.

Mr. Cox. There can be no question, can there, that the possession of a strong affiliation is a good part of the solution of the circulation problem of a UHF station?

Mr. HEFFERNAN. It is helpful, but I would say this: That it is not the full—and I wish I could say that it were—it is not the full solution.

Mr. Cox. You have your problems in Buffalo?

Mr. HEFFERNAN. More than that. After 3 years—2½ years of operation in Norfolk, we are substantially handicapped in circulation there, a handicap, as I say, that NBC has been willing to accept to help UHF. But the circulation in Norfolk after 2½ years of NBC programing, things like the world series, is substantially below that of its VHF competitor. I don't want to sit here and prejudice that fellow's competitive position by putting something on the record that his competitor will use against him on Madison Avenue. This is very delicate, but it is realistic that he is at a substantial circulation competitive disadvantage today after 2½ years of NBC network programs. So network programing is not the entire solution.

He is, as I indicated, 1 of those 6 who are a basic station, so he has had all the network programs that he wanted to take, and he has wanted to take most of them—nearly all of them, so that he has had all the advantages of network programing, but that has not in and of itself overcome the circulation handicap. It helps. You are

unquestionably right. I would not want you to get the view, however, that that alone is the solution, and I don't want to be too persistent about the point, but our position is that the key to this solution is the excise-tax relief on all-channel color sets, because then all operators, network affiliated and not network affiliated, will see light at the end of the tunnel. They will know that a solution does exist, and it is a matter of time. Their difficulty today is they do not see any clear solution. They will then see such a solution.

Mr. Cox. Norfolk is one of the areas in which a deintermixture proposal has been made, isn't it, since there is only one V on the air there?

Mr. HEFFERNAN. It may well be included on the list.

Senator SCHOEPEL (presiding). I would like to ask you a question with reference to the excise tax. Time, you indicated in this statement, is a pretty important factor to take into consideration. We are presently in session now. Let's assume that in the wisdom or the judgment of the Congress—sometimes it doesn't go according to Hoyle—that we are unable to get some relief. Personally, I think it is a much needed relief. Say this thing should drag out for 2 or 3 more years. In your candid opinion, would that be a serious prejudicing of the situation?

Mr. HEFFERNAN. Most serious, Senator. In fact, it would raise the question as to whether UHF could survive.

Senator SCHOEPEL. That was the point I was coming to.

Mr. HEFFERNAN. Most serious. I would hope—while we are most hopeful of cooperation from Congress on the excise-tax point for the industry, for the benefit of the public we hope that the executive branch would understand the importance of this as well, because we are speaking here of something of incalculable value to the Nation, namely, a communications system under which the President of the United States, for example, in times of national emergency can go on the air and speak and be seen by all the people, and not just those who happen to have service within the range of the big city markets, but all the people, in all communities. It is most important. It is a national service, a national communications service, a national problem, and the amount of revenue involved under the proposal that is now made is relatively small, quite small.

Now, the executive branch has, as you know, Senator Schoepel, interested itself in this Congress in making a recommendation for relief in one area in the excise tax. I agree with that. I think it was sound, but the executive department considered that, came to Congress, recommended it, Congress did it.

I agree with everything they did. To my mind—and of course we are in this industry—this is of equally vital importance to the Nation, this particular excise tax relief, to give the Nation the kind of communications service, vital service it needs and it deserves. The reason I keep bringing the point up from the standpoint of public consideration is that if we go to the Treasury, or to the Ways and Means or the Finance Committee, they say, "You fellows are broadcasters and every fellow is on our doorstep, wanting excise tax relief"—and they can understand our wanting it—"but you are here to promote your own personal interest, and while you talk in terms of public considerations, everybody does that." But this committee, I believe, based on its past actions and its actions at this time in writing to the Treasury, of which

Senator Pastore spoke to us, you do realize that these are public considerations and not private considerations.

You do realize that. You, therefore, are in a position to present to the executive branch, to the White House I would hope, these public considerations and enlist their sympathy and aid and help in this matter, because if you get the cooperation of Treasury, you are a long way down the road, as you know.

Senator POTTER. If you will recall it was 2 years ago when, I believe, Senator Johnson and myself, appeared before the Finance Committee to try to get the tax removed, in an effort to promote the all-channel tuner. At that time, the main objection, of course, was from the Treasury Department, the Bureau of Internal Revenue, that we would lose the funds involved. I think you are absolutely right. I think the administration would have to see it in the light, not just of the matter of revenue that might be lost, but an industry that is vital to our national defense. It is going to be greatly hampered unless this excise tax is removed so that we could have all-channel tuners on a nationwide basis.

Mr. HEFFERNAN. I am glad you brought that point out because I do think you, Senator Schoeppel, and the other members of the committee at that time deserve credit. You not only appeared before them, you adopted a resolution of the Senate Interstate and Foreign Committee. You appeared before them. We had a fortunate happening at that time. Senator Edwin Johnson was a member not only of this committee but of the Finance Committee, so he was able to point out to them the considerations of national policy, and the Finance Committee at that time did actually adopt a proposal which went part way down the road to give the relief.

That proposal was adopted and favored by the Finance Committee but it was lost in the adjournment rush, because we met, if you remember, in May and June, and it was in June before we got to this point, and it was lost in the rush.

This time—I am not sure you were here, Senator Potter, when I made the point about excise tax relief—partially to meet the Treasury's objections—and I have seen their letter to the Ways and Means Committee which was solely on the basis of diminishing the revenues—we are limiting the proposal for excise tax relief to all-channel color sets. Well, it happens that all-channel color sets are not being made in great volume today.

Senator POTTER. They are not losing revenue.

Mr. HEFFERNAN. They are not losing a great amount of revenue. Therefore, we have sidestepped the principal objection of the Treasury, whereas the public advantages of the proposal are still there, and the disadvantages are not there. We have the further argument that color, being a new industry, the Treasury and Congress have traditionally refrained from putting an excise tax on a new industry until it gets on its feet.

For example, black and white TV sets were not taxed, were not subject to an excise tax during the first 4 or 5 years of their growth. It was not until the Korean war came along that the tax was put on black and white sets; so that black and white got a chance to grow and develop as an industry and get on its feet before being subjected to tax.

Further, if Congress would now exempt all-channel color sets from the tax, it is not an irrevocable step. If color mushrooms and grows,

as we all hope it will, and UHF is tied to the kite of that growth, Congress at some time, some future Congress, can reimpose the tax. This is not an irrevocable step. It is a step taken now in the interest of national policy so the President, in time of emergency and at other times, and other public officials can go on TV and speak to all the people; those served by the large city stations and those served in the smaller communities, and we can have both objectives, and I support the objective of CBS and of ABC to have three V's in more markets.

We are for that, but we think there is a means of having both objectives the Commission laid down. That is, both the community service and three V's in more markets.

Senator SCHOEPEL. I am glad to hear you make this analysis, because from a practical standpoint the Congress, what the Congress and I am sure the departments have been confronted with, follows something along this line. They say, "Well, if you remove the excise tax, then there are other excise taxes in certain industries and they say we should have them removed." But particularly this situation, as I view it, is entirely different because here we are building something for the future.

We are trying to preserve a greater overall sphere of use or activity which, if we stifle it now, is going to sort of freeze it, so to speak, and we will inevitably lose a lot of it. Therefore, I was especially interested in your judgment as to the time limits of this action. I personally feel that it is something that I am hopeful that we can take care of in this session of the Congress.

Mr. Cox. That is all I have, Senator.

Senator SCHOEPEL. Senator Potter, do you have anything?

Senator POTTER. I would first like to apologize to Mr. Heffernan for not being here to hear your statement. I had planned on it, but I had to utilize your television facilities in my schedule for today.

Mr. HEFFERNAN. We appreciate your interest in coming, Senator. We have tried to present a proposal under which the objective that was discussed yesterday of increasing the number of markets where three VHF stations could be assigned is possible as byproduct of deintermixture, but at the same time preserve a system under which communities could be taken care of with UHF stations, so that both objectives and not just one could be attained. And we do think that is possible if we get the key to the solution, which is excise tax relief, which in turn is the key to the circulation problem, which is the problem of UHF.

Senator POTTER. Do you have the same doubts as Mr. Lodge, of CBS, as to the engineering potential of UHF; that is, it is an inferior type of television reception?

Mr. HEFFERNAN. Well, Dr. Engstrom testified before this committee. I did not have an opportunity to be present. He is the senior executive vice president and engineering official of RCA, and we stand on his testimony as to the technological differences. I think I correctly summarize them in saying that we must be realistic in recognizing that, as of today, VHF does give you superior area coverage to UHF. However, Dr. Engstrom pointed out that based on the whole history of technical development of the electronic industry, we can expect that difference will diminish as new improvements come in. The rate at which it diminishes may be slow. We don't promise miracles are coming out of the laboratory tomorrow. But in addition

to that point, there is before the Commission now a proposal under which the UHF stations could extend their coverage by the use, for example, of boosters. Satellites have already been authorized, so that if there are additional areas of significant population that a UHF station wants to go out and reach for, he is not limited to doing so from his main transmitter. He can use a booster, or a satellite. As you know up in your area, Traverse City is operating as a satellite now, of Grand Rapids and very successfully, I hope.

Senator POTTER. We hope we can use it in Cheboygan.

Mr. HEFFERNAN. We are hopeful, too. We have interested ourselves in that area because we think northern Michigan should have TV service, and it should have the type of TV service to the extent it is practical to get it economically, that the rest of the country has, and we think ingenuity should be used, and in that situation has been used to get it. Boosters are technically successful. They are used in other communications services. They are available here. I am not claiming that that alone today means that a UHF station is technologically equal to a V because it is not.

Senator POTTER. If all receivers could receive a UHF signal, there would be more emphasis upon the technological development of both the transmission and the receivers to receive the signal.

Mr. HEFFERNAN. That is right.

Senator POTTER. To give the signal and receive it.

Mr. HEFFERNAN. That is exactly right, sir. As we said in our statement, if all receivers today could receive all UHF stations as they can receive all VHF stations, I do not think we would be here.

Senator POTTER. That is correct.

Mr. HEFFERNAN. The problem is circulation; the principal problem of UHF is circulation. That is the principal problem, and the key to that is excise tax relief because that will mean that in the long range that problem will be licked.

But time is of the essence. I am glad Senator Schoepfel brought out that unless we act at this session of Congress there may not be anything to act on later.

Senator POTTER. What would happen if Congress did not act in this session on the excise tax problem? You folks manufacture sets. Would the competitive forces operate so that you would have to manufacture your color TV sets in just the V channels?

Mr. HEFFERNAN. Dr. Engstrom has pointed out that the competitive forces are already driving us to that. You see, one reason that we, up to this year, were able to manufacture all-channel color sets is that there weren't, really, virtually any manufacturers that were making color sets except RCA, so that the competitive factor was not operating, but now it is operating. He pointed out in his statement that that factor is already here, so it is no longer possible to expect that all color sets made in the future will be all-channel unless we get excise tax relief, because we are tooling up for production right now on the basis of V-only color sets as well as volume production of all-channel color sets. We are tooling up now, but if we get excise tax relief soon, we would retool and sell nothing but all-channel color sets.

Senator POTTER. And I assume competitors would have to do the same thing.

Mr. HEFFERNAN. If we got excise tax relief there is every reason to suppose it would then be uneconomic to make anything other than all-channel color sets, which is just the reason this proposal is made. The result is then automatic, and the UHF operator, while he is not presently out in the clear, he sees light, he sees the solution. It is there. It is a matter of time.

Senator SCHOEPEL. Anything further, Senator?

Senator POTTER. No, sir.

Senator SCHOEPEL. Thank you very much for this most enlightening statement. As I understand, these proceedings will be recessed, or at least subject to the call of the chairman, until the week of April 23, and at that time I understand those interested in the subscription television situation will be given an opportunity to be heard.

Mr. HEFFERNAN. Thank you very much, gentlemen.

(Whereupon, at 11:59 a. m., the committee adjourned subject to the call of the Chair.)

ALLOCATIONS TESTIMONY RECEIVED IN LATER HEARINGS

At the conclusion of the testimony on March 28, 1956, the major bulk of the testimony on allocations matters had been completed. However, certain additional testimony relating to these problems was heard during subsequent hearings which were devoted primarily to questions concerning subscription television and certain network practices. This later testimony is printed at this point in order to bring all the material on allocations into as close relation as possible.

For written statements filed with the committee and other communications pertaining to allocations see the appendix at the end of this volume, beginning on page 1009.

The testimony of each later witness who addressed himself to allocations and related matters is set out below, with such notes or surrounding material as may be necessary to fix its setting. The witnesses are:

1. Bill Hoover, K TEN, Ada, Okla., who appeared on May 14, 1956 (and in connection with his testimony, a letter from P. A. Sugg, WKY-TV, Oklahoma City, Okla.).
2. Benedict Gimbel, Jr., Philadelphia Broadcasting Co., who appeared on May 15, 1956 (and in connection with his testimony:
 - (a) Testimony of Leonard H. Marks, counsel for FM Broadcasters, who appeared on June 11, 1956;
 - (b) Letter from Mr. Marks inserted in record on July 17, 1956; and
 - (c) Letter from Morton H. Wilner, counsel for Triangle Publications, Inc., inserted in the record on June 11, 1956).
3. Henry B. Walker, Jr., On the Air, Inc., Evansville, Ind., who appeared on May 15, 1956.
4. Chairman George C. McConaughy and other members of the Federal Communications Commission and its staff, who appeared on July 17, 1956.
5. John W. Boler, North Dakota Broadcasting Co., who appeared on July 18, 1956.

TELEVISION INQUIRY

MONDAY, MAY 14, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to notice, at 10 a. m., in room G-16, the Capitol, Hon. Thomas A. Wofford presiding.

Present: Senator Thomas A. Wofford.

Senator WOFFORD. The committee will come to order.

The first witness we are supposed to hear this morning has notified the committee that he cannot come at this time—Mr. Skouras. The committee may hear him later. He is unavailable today.

I want to state for the record, before I call the first witness, that Senator Monroney expressed to me his desire to be here today at this hearing, but it was impossible for him to do so because he had a speaking engagement elsewhere. He said that he would be particularly interested in reading the testimony of Mr. Bill Hoover, who is a constituent of his, and a very close personal friend of the Senator.

Will you come around, Mr. Hoover? You are from Ada, Okla., as I understand it.

Mr. HOOVER. Yes, sir.

STATEMENT OF BILL HOOVER, ADA, OKLA., OPERATOR AND MANAGER OF TELEVISION STATION KTEN

Mr. HOOVER. Senator, Bill Hoover is my name. I am from Ada, Okla. I am the operator and manager of television station KTEN; that is, channel 10, designated for Ada, Okla.

The comments and statements that I am going to make this morning in this testimony are based on about 2 years' experience as the manager and operator of a regional or area television station, built and designed originally to serve a wide agrarian area of southern and eastern Oklahoma, which is basically beyond the practical service area of surrounding metropolitan stations. In addition to this experience, I have also managed and operated radio and television stations for the past 10 years.

Now, based on this short history in this industry—or comparatively short history—I know that the suggestions that I will make here today are not an overall cure-all, nor do I at all kid myself that the comments that I will make will solve all of these problems of this vast industry, or that I know all there is to know about this thing—not by any manner of means. But after these statements that I make are improved upon by probably much better minds in this industry, we may have

some improvement in the television industry for both the industry itself and the American citizenry.

My appearance before this committee this morning is not designed to be unduly critical of the Federal Communications Commission, as such, and is only to state facts as I see them with regard to network practices and those practices in their behavior toward station affiliation.

Now we will delve into three different areas of consideration: (1) Satellite station operations, its ills, and effects; (2) the coverage quotation practices and how they, as well as the misrepresentations involved, should be corrected; (3) the struggles of an area television station and how the proposals presented in this testimony would insure faster growth and development of television service for all the citizens of our country.

A new evil has reared its ugly head in the television industry. Unless properly controlled, it will soon become a monster of such proportions that none of us within the industry will be able to cope with it. This new evil is the development of satellite television stations. During the thirty-odd years of radio history the satellite station operation was not developed. But, due to the enormous cost of installation and day-to-day operation of a television station, there are those in our country who prefer to run a satellite operation rather than expend the tremendous amount of energy and finances necessary for the development of legitimate local television service as we now know it.

Because the satellite operation is new, the Federal Communications Act of 1934, as amended, to my knowledge, does not contain adequate rules and regulations to cope with the proper policing and development of satellite stations. Of course, where rules do not exist, or you have vague or inadequate rules, there are always those willing to proceed with action based on the vague or inadequate rules, particularly when such action will serve their needs and desires.

There is no successful industry in our American way of life that has attained its success by giving away its product or services, or by selling those products and services at a rate far below the actual cost of production and development. Yet the basic theory and principle behind a satellite television station is just that.

Mr. Cox. In what way would that be true, Mr. Hoover? In order to make it economic at all, since there is some investment involved in the construction of a satellite station, even though their costs of operation are reduced, they must receive revenue in order to make this an economic operation.

Mr. Hoover. True. But the origination of the programing itself—a satellite, due to the low cost of operation, will sell spot announcements, next to the programs that it is carrying on a satellite basis from a parent station. Therefore, not having to delve into the expenses of program origination or negotiations, many times with networks or film companies, they only sell the spots between the shows.

Mr. Cox. In other words, they would derive most of their revenue from spot announcements on their own account carried adjacent to programs of the network station?

Mr. Hoover. That is the basic theory on which they are constructed.

Mr. Cox. Isn't it true in a number of instances the satellites have been constructed by the same interests owning the parent station and

they have then adopted the practice of selling the coverage of the two stations as an entity, both for sponsored programs as well as for spot announcements?

Mr. HOOVER. That is true, but the additional cost for the satellite is not proportionate to the charges that would be necessary if that satellite had to maintain its own sales organizations, if it had to generate its own local shows, and so forth.

In other words, it is only a percentage—in many instances a small percentage—of additional charge for the satellite, something that couldn't be coped with by a local competitive station.

Mr. Cox. And by that you mean by a station that was going to make a real effort to provide a local program service?

Mr. HOOVER. That is right. Now there is one other point about satellites which was basically covered by the question, and that is that the big television station who finds a weakness—a metropolitan basic network station who finds a weakness in his coverage area, a soft spot someplace, is the one fellow in this industry who is in the best position to develop a satellite operation. And that only leads to the one big problem that is before this committee, and frankly, before the entire industry, and that is the fact that the big ones keep getting bigger and the little ones find it next to impossible to exist.

Now here, for example—and I think this will show the point that you wanted to clarify—how a satellite operation will work: Let's take, for example, there is a basic network affiliate in a metropolitan area that has a tremendous tower—1,000 or 1,500 feet—with maximum power on its given channel, and this station finds that its signal, in a given segment of its fringe area, is being squelched or being interfered with by a signal generated by another station either on his channel or on an adjacent channel.

Now this basic network affiliate does not become particularly concerned about this loss in coverage initially. But about the time that a local or regional television station is built to serve this area that is in the interference segment of the metropolitan station's coverage, and about the time this local or regional station begins to point out the weaknesses of the metropolitan station and begins to attract regional, national and local business, about that time is when the basic metropolitan station really begins to get around. He becomes concerned about the service in the interference area and he is completely sympathetic with the unfortunate people who have been losing the programing that they justly deserve. In fact, he becomes so concerned that he is willing to make his programing available to persons who would like to own and operate a television station, and to whom possibly a channel has already been allocated, in the questionable fringe area.

He then encourages the development of this second station in the fringe area, and offers—for the public good, of course—to feed his fine network programing to the newly developed station on a satellite basis. He may even allow the advertiser to be charged a small rate for this additional coverage, but since the satellite is receiving so much programing and services and sales energy from the basic station, there generally goes along with all of this service a small service charge through which, in the final analysis, the major portion, if not all, of the profits from the satellite go back to the basic station.

Mr. Cox. This is a charge, you mean, that is exacted by the parent station for providing this?

Mr. Hoover. It could be, and generally—well, you can see the business arrangement: "We will make these available to you and we will sell for you. We are doing all of this. We need a little service charge out of this thing."

Therefore, the satellite gets money, a small amount of money, but by the time he has paid back his service charge to the basic station for the energy it was going to expend selling itself anyway, then a good percentage of the profits of the satellite have accrued back to the basic station. Consequently, the essence of this whole thing is that the basic station has found itself a crutch whereby it can cover an additional area, control the satellite, and break the back and spirit of a local or area station in the questionable fringe area.

Now this, to my way of thinking, is unfair competition, and is not in accordance with the intent and spirit of the Federal Communications Act, as amended.

Mr. Cox. Are you going to develop later the way in which the creation of this satellite has an impact upon the operations of a truly local station in the area? Do you discuss that at a later point in your statement?

Mr. Hoover. Yes; I will.

Now with regard to the networks and their attitude concerning satellite operations. I believe it has been conclusively proved by this committee that the networks are dedicated to the proposition of covering the United States with as few stations as possible. If there is some sparsely populated area which does not receive service, then that area will just have to struggle along without service.

Mr. Cox. What of their argument, Mr. Hoover, that it is necessary to attempt to get this coverage from a few powerful stations in order to make television a competitive medium, as far as advertising generally is concerned?

Mr. Hoover. What is wrong with having competition out in the sparsely settled areas, just as well as having competition in the metropolitan areas? It doesn't add up that competition can only exist in just the metropolitan areas, sir.

Mr. Cox. I think the point they try to make is that the cost per thousand goes up in a more sparsely populated area, and that this renders television competitively unequal, as far as magazine, newspaper, or radio is concerned; and that it is, therefore, impossible to develop a television service on as broad a basis, for instance, as we now have radio service.

Mr. Hoover. I would like to answer that a little bit later when I get into coverages, because I will show how, if each station is paid for its actual coverage, then there will be some left for the fringe area. I would like to get into that in the second phase, if you don't mind.

Mr. Cox. Fine.

Mr. Hoover. Since the basic station in the metropolitan area is such a lucrative property for the network, the network, rather than offend its affiliate, will readily agree to allow the affiliate to feed its fine programs to the newly born satellite, in the public interest, convenience, and necessity. In doing so, the network knows full well that the actual profit and coverage of the satellite will ultimately accrue to the basic network station, which will enable the network to maintain its principle

of "coverage of the United States with as few stations as possible," because the 2 then are considered as 1, as you see.

Of course, the local station, which had been knocking on the doors of the networks for months and months and months, requesting affiliation as a legitimate local service to the citizens of the area in question, can be told: "We don't need you; we have coverage in that area," and the big squeeze is on.

Mr. Cox. Now is it the current practice of the networks to regard satellites as additional affiliates of the network, or do they—

Mr. Hoover. Well, it can be molded into the coverage of the basic station. It is a lump, if you please; or filling out a hollow spot. There is one thing I would like to point out right here in favor of the networks right along this line, and that is that I sincerely believe that in many instances, the networks would prefer to affiliate the local or area independent station in preference to a satellite station, if it were not for the tremendous pressure applied to the network by the basic affiliate, and particularly by a basic affiliate in a city where there are less than three VHF outlets.

A network, you know, must get along with its affiliates in the principle cities, or the affiliate in a principal city where there are less than three VHF outlets can reject the network's programing in favor of another network which is anxiously waiting just to get his programing into that market. So all of the ills of the satellite problem cannot honestly be laid at the door of the networks. In fact, if the proposals that I will present here later were adopted, the networks would seldom be put in the awkward position described above. And they are definitely put in a very awkward position.

Now there are those who will point out that the satellite arrangement is a desirable one to help a new station get started with good programing, thereby enabling that station to develop a larger, more loyal listening audience. And when the day comes that finances will permit, the satellite can then convert to a legitimate local operation.

In my opinion, this is a supposition and will not happen for two reasons. First, the basic network affiliate does not intend to allow the satellite to get from under its control and domination. Second, a new station is much like a new baby—unless it exercises and remains active, it will not grow. The same is true of a satellite station. Unless it actually endeavors to render the local service it should—producing its own newscasts, weather programs, farm programs, and local-service programs—how can it ever expect to grow strong and self-sufficient? This promise of future growth and development to an independent status is shallow.

The comments made to this point might lead the committee to believe that I feel there is no situation where a satellite station operation is justified. That is not necessarily so. There are, no doubt, areas in the United States which cannot honestly support or justify a full-fledged television station. In those instances, where the people have no service at all, then the satellite type of operation may be the answer. However, my position is this: That the FCC should immediately develop specific rules and regulations with regard to the granting of construction permits for such operations.

Mr. Cox. Now in that connection, Mr. Hoover, is it your position that if an area has one local station, and it could support an additional station of its own, that it would be improper by means of a satellite

station to bring in further program choices to this area by feeding in the programing provided by stations in remoter cities?

Mr. HOOVER. That is right. In other words, where one station can exist in an area and render good solid local service, not only in programing—network programing, and all types of programing—but the local service that every area or community of any size at all should have, by bringing in or allowing a second station to come into this area as a satellite, not on an open competitive basis—anybody has a right to get in there and just wade right down the middle competitively—but as a satellite, developing unfair competition to the point that the satellite can ultimately kill the local services, then are the people any better off? Not at all. In fact, I think they are not as well off.

Mr. Cox. Would it be your position that this one local station can at least provide the cream of the programing normally, because if it is recognized it will be able to get a selection of programs from all three of the networks?

Mr. HOOVER. That is one thing. The other thing is that as the area then grows and develops and becomes more saturated with sets, you know and I know that there is always an opportunity for a second independent, legitimate facility to be developed, because, sure, one station cannot handle all of the programing from 2 or 3 networks. And as the area becomes more recognized nationally, there will be the available space and opportunity for the development of your second local, legitimate, competitive, television station.

Mr. Cox. Now on this point of the development of the satellite station into a true local station, would you care to comment on the position, I believe, of the Federal Communications Commission, that they feel that in the future years they could condition the renewal of the license of the satellite by requiring it to institute increasing degrees of local programing services?

Mr. HOOVER. Well, I would like to point out that actually there are such loopholes in the rules as they now stand—of course, understanding that these satellites are a new problem—there are such loopholes in our existing rules that literally and actually a station can be developed, apply for a regular construction permit as a legitimate station, it can build a little studio, actually buy a camera and have all the appearances of a local legitimate station—but principally and basically and for all practical purposes it is a satellite—and never call itself a satellite. That is the point that I am getting ready to make here in the suggested rules that would control this thing, sir.

Mr. Cox. Well, now, however, when it comes up for a renewal of its license, isn't it going to be required to make a showing as to the nature of the programing it is furnishing?

Mr. HOOVER. That is right.

Mr. Cox. And that would reveal the fact that it had actually been operating as a statellite and might then involve it in difficulties about renewal?

Mr. HOOVER. Except for the fact that the rules delving into—and the program percentages on the present FCC application delve into network programing and local programing, and educational, and talks, and news and that sort of thing. The programing will be balanced. It will be just as balanced as the basic station. It will make a fine report as far as being balanced, fine service. The only thing is it has siphoned this fine programing from the basic station—except for that

occasional local show that it will fire at the studio, with loaned personnel, and do an occasional show to justify local service, you see.

In essence, it is still satellite to the principal metropolitan station, the basic metropolitan station, and it is a crutch to that station.

Mr. Cox. For the record, however, isn't it true that satellites are presently recognized and licensed by the FCC under a rule that was instituted, or adopted, in August of 1954 or 1955? They do have a rule under which these stations are recognized?

Mr. Hoover. There was a rule change proposed—a rule proposal made at the FCC. The final adoption of that rule, I am not sure of.

Mr. Cox. Well, that may be it. It may be that this is simply a proposed rulemaking proceeding at this stage.

Mr. Hoover. That is right. In other words, even if we were to get what rules they are planning on making final finalized, that would be something, at least, toward stopping the development of satellites as a crutch to a basic network affiliate that wants to add to its coverage and break the spirit of local service that is beginning to encroach upon his vast domain. Now here is my proposal to solve this problem.

In the first place, many people find fault but if you ask them for an answer, there isn't any. Well, I don't want to be among that number. It is my opinion that FCC rules and regulations should be developed and adopted which call for official FCC approval for any station to operate as a satellite to another station. The definition of a satellite should be construed to mean—

Senator WOFFORD. May I interrupt for a minute? Do you have any objection to these photographs being taken? [Indicating photographers.]

Mr. Hoover. No, sir.

Senator WOFFORD. All right, go ahead.

Mr. Hoover. The definition of a satellite should be construed to mean that when any station accepts programing, either network, local, live, or film, from another television station via any connecting facility, whether it is off-the-air pickup, microwave relay, or coaxial cable, in excess of—and here is the meat of it—in excess of 8 hours of programing per week, the station receiving such programing in excess of 8 hours must declare itself a satellite and obtain FCC authority to operate as such.

Now let's analyze just this one point. If an application is made by Station X to operate as a satellite to Station Y, and this service can be delivered without developing unfair and undue competition to already existing local operations, naturally there would be no one to protest the granting of the application by the Federal Communications Commission, because the people weren't getting any service in the first place. They would want some. So the application would go right on through.

On the contrary, if Station X's application to operate as a satellite is actually an effort on the part of a basic network metropolitan station to increase or improve its coverage, using the satellite as a crutch to do so, and this action would work to the detriment of an existing local station in the area, to be sure, upon public notice of the intent of Station X to operate as a satellite to Station Y, there will be a vigorous protest on the part of the local station that will be hurt in the process. Then, after proper FCC hearings on the matter, the Federal Communications Commission must decide whether the satellite proposal is in

the public interest, convenience, and necessity. In other words, we just should have a day in court to determine whether the development of this satellite is really in the public interest. Then if the Commission feels it is, fine; but there ought to be a way to bring the thing up for hearing. And this would surely be an opportunity to do that.

The reason for using 8 hours of programing per week as the basis for determining whether a station should be classified as a satellite is because many times there are public service programs originated by one station which can be picked up by another station in the same general locality. This particular public service program could be delivered to the public with convenience and to the overall good of the public. There are times when special sporting events are originated, and arrangements are made whereby a second and third station may carry the same program. It is my feeling that the 8 hours per week would allow for the normal amount of cross-station feeding of programing that exists today. Therefore, when you get over that you begin to get into this satellite thing.

There are those who will say that such a rule will be destroying the principle of network programing because, in essence, they try to stretch this thing that network programing is taking programing from one station to another. But I am sure as the details of the rule would be written, they could be definitely differentiated between network programing. Further, they contend that delving into network programing and station programing in general—the FCC just should not delve into that sort of thing.

On the contrary, the FCC in my opinion has a positive and specific responsibility, under the Federal Communications Act, to police the allocation and operation of any and all radio and/or television stations utilizing frequencies now designated and allocated to the United States, and to make sure that these facilities are utilized to the fullest extent for the good of the American people under the American free-competitive enterprise system. Actually, this proposed rule to police the development of satellite stations would be an effort on the part of the Federal Communications Commission to make certain that the spirit and intent of the FCC Act of 1934, as amended, are carried out to the letter, and that as many citizens as possible will have local television service. I, therefore, believe that the adoption of such rules by the Federal Communications Commission is in the public interest, convenience, and necessity.

If you find the statements and thinking in this testimony to be true, correct, and logical, I believe this committee should take immediate steps to request of the Federal Communications Commission that it develop and place in action, at an early date, specific rules and regulations with regard to satellite operation of television stations.

I do not know whether this committee intends to complete its investigation before making certain specific recommendations to the Federal Communications Commission, or whether the committee has considered making a series of interim recommendations and proposals to the FCC for immediate action. I am inclined, as were many who have appeared before this committee, whose testimonies I have read, to urge quick and immediate action. I, therefore, join my voice with theirs, to request that this committee take under advisement the possibility of development of interim suggestions and proposals to the FCC for immediate action, prior to the development of its final report, remem-

bering that time is of the essence in this fast-moving television industry.

So I want to request that this committee consider the possibility of filing a request with the FCC at an early date based on this satellite problem. That basically concludes my comments with respect to the satellite stations and their ills.

Mr. Cox. Now, in that connection, Mr. Hoover, you have, of course, developed this in general terms. Could you tell us whether such a situation actually exists in your area in Oklahoma and actually affects your station, or potentially could affect your station?

Mr. HOOVER. The answer to that question is "yes"; there is a situation developing in our area.

Mr. Cox. Could you tell us something about the details so we could pinpoint the case?

Mr. HOOVER. When we get into our maps here in just a few minutes, I will ask you to make a special note to look at the maps of WKY-TV, Oklahoma City, and in that way, I can show you in a graphic manner what I am talking about, or I could go into it now, whichever you prefer.

Mr. Cox. I think you can reserve it, except I take it that the situation is that WKY is a station which you feel proposes to assist in the development of a satellite, and that that satellite would then have injurious effects economically upon the operation of K TEN.

Mr. HOOVER. That is right. But I want to further amplify it with the maps here in just a minute.

Mr. Cox. All right.

Mr. HOOVER. Now the second area of consideration, on the surface, seems far removed from this first consideration. Actually, it attaches itself to the first problem, as well as many other problems now before this committee and the television industry. There are only so many advertising dollars in America, and, frankly, they make a very, very nice pie. The television industry's slice of that pie is quite large, but as Senator Bricker in his report of a week or so ago pointed out, only the crumbs of the crust of the pie ever seem to reach the hands of the area or local television station. Consequently, without income, local and area television stations have not grown and developed as they should have. Their future growth and development is being impaired, and it naturally follows that the American public is not getting the television service it could and should have.

One of the elementary reasons why the advertising dollars are not reaching the area and local stations is because the presently existing coverage maps and standards, submitted to the Federal Communications Commission—and used in the selling of time by the television industry—are theoretical in scope. They are not factual, and in many instances are basically misrepresentations of coverage. In the beginning of the development of the rules, regulations, and standards with regard to the television industry, the FCC maintained an official attitude of making the filing of applications and the engineering data pertaining thereto as simple as possible. I believe it is an official attitude of the FCC that they do not intend that their standards be construed as specific coverage areas of stations, but rather that these coverages be used as a basis for determining overlap and duopoly and that sort of thing, for administrative purposes of the FCC. However, regardless of what the FCC's intention was for the present

standards, the fact remains that the coverage areas filed with the Federal Communications Commission in accordance with the present standards are used as sales vehicles and are used as a basis of having FCC sanction and approval. In other words, whether the Commission wants to be charged with the responsibility of designating the coverage area of stations or not is beside the point. They are, just because they are in an official capacity which they have with regard to this industry. Even though in many instances it is an established fact that the perfect circle shown on these maps does not accurately represent the actual coverage of the stations involved.

In the beginning of the television industry, I am sure the FCC thought that each station would send out a signal from its antenna in a uniform manner in all directions. I am also sure that the FCC thought a signal could not be received with any degree of satisfaction beyond the class B contour. Now that we have had several years of experience and we now know the facts, why should we, as the television industry, continue to operate under antiquated and inaccurate theory. There were those in the FCC, in the early days of television, who were actually on the right track, but lost the battle because standards of engineering practice with regard to the coverage area of stations as set out in the third report, issued March 22, 1951, were not adopted as the standards to be used.

The standards set forth in the third notice were not developed overnight, and were not developed by people unfamiliar with the facts of this industry. Actually, the third report required nearly 2 years of research, hundreds of man-hours of work, and involved the finest technical minds in the industry and in the Commission, working as a team. The standards set forth in the third report took into consideration cochannel and adjacent channel interference factors. Today, with the growth and development of more and more television stations, as well as increase in height—increase in antenna height and things of that sort—these factors prove to be an important problem to the advertiser and the industry.

In fact, a close check will reveal that a large percentage of the television stations in the United States do not put out a receivable signal uniformly in all directions from its antenna, even though the coverage maps submitted by stations to the advertisers and their agencies will, 9 times out of 10, show such uniform coverage. The majority of these maps are given to the advertiser on the statement that this is the coverage of the station, according to the FCC and the maps on file there. So long as such misleading maps are given official sanction—whether intentional or unintentional, as far as the Federal Communications Commission is concerned—just so long will stations continue to sell on these misrepresentations of coverage.

Mr. Cox. Now isn't it true, Mr. Hoover, that actually the service area which can be served by a station operating at full power and full antenna height is greater than the area which would be enclosed within the calculations made upon the basis of the FCC standards?

Mr. HOOPER. Yes, that is true, and I think testimony has already been presented to this committee in the past stating pretty good evidence to the fact that a 100-microvolt contour out here [indicating], interference free, is a good receivable signal on the average home receiver.

Mr. Cox. Now that is less than actually contemplated by the FCC?

Mr. HOOVER. Yes, but here is the catch. The maps filed with the FCC are only shown out to contour B, but the standards of measurement to determine B are also the standards of measurement to determine this 100 microvolt, which everybody has bought now as being an actual thing; so they still just make the circle and make it a hundred microvolts all around, uniform in every direction.

Mr. Cox. That is the circle on their map used for selling?

Mr. HOOVER. Yes, but they use this circle and show that the hundred microvolt goes all around, which enlarges the coverage of each station. And it is true where a hundred microvolts is interference free it is a good legitimate signal and a station, I personally think, has a legitimate right to charge an advertiser for coverage out to that point.

Here is how the thing actually works. Station A with maximum power for its channel, located in a metropolitan area, is a network affiliate. This station, according to present coverage maps, has a class C or 100-microvolt contour out, let us say, as far as a hundred miles. I am not using anything specific here; I am using an example. Say it goes out a hundred miles. The station calculates all of the homes inside this hundred microvolt contour. The network also makes the same calculation, and the rate charged the advertiser by the station and/or the network is based on all of these homes inside this contour.

Actually, 75 miles away, let us say, there is station B, on an adjacent channel, with maximum power and a 1,000-foot tower.

Mr. Cox. Would that be the minimum separation required?

Mr. HOOVER. 65 miles is the minimum. I will have to qualify that: 65 miles is the minimum in zone II; I do not know about the other zones. That is, where I operate. This station's signal—that is, station B's signal—actually interferes with the signal of station A in a segment of station A's coverage area. In fact, some of the less expensive table-model sets in the fringe area are equipped with a relatively inexpensive antenna system, which is also quite broad-banded in reception. Consequently, station A's signal cannot be received with any degree of satisfaction because of continuous interference from station B, the local or regional station on the adjacent channel. Yet, the networks refuse to accept the fact of interference. Certainly the basic network station A will not admit the interference. The advertiser is misled into thinking he is getting coverage over all of station A's coverage area; he is paying for that coverage, and, basically, he is being cheated.

Mr. Cox. Well, have you, or the operators of other stations who feel they are filling in an area that is interfered with, been able to convince advertisers of the facts as you believe they actually exist?

Mr. HOOVER. It is a slow and a tough and a very hard process. It can be done, and there are those—both network people and advertisers—who know of our efforts at KTEN, and it can be done. But it would be a lot simpler for the entire industry just to make the maps factual to start with, and then everybody could receive money for the area they actually cover. That is the point I am making. It isn't right for a station that is first in a sparsely settled area, and has limited income, to have to battle to the extent that we have had to battle to even make a little bit of headway. We are a long way from being there. I assure you of that.

And even worse, in this instance, than the advertiser being cheated, the viewers in the adjacent channel interference area are being de-

prived of some of the better network programs because the network will not make those programs available to the area station.

Whereas, if coverage maps were developed, based on the station's coverage out to the 100-microvolt contour of interference free area, from both cochannel and adjacent channel factors, the advertiser could then buy and pay for the coverage he is actually receiving from the basic network affiliate. With the reduction in cost of the basic network station, he could take the dollars he has saved by paying for actual coverage only, and buy the same program on the area or local station, thereby giving the advertiser better coverage. And, without excessive increases in advertising expenditures on the part of the advertiser, more people could receive better television service.

Mr. Cox. In other words, you are suggesting that this would produce a reallocation of the dollars spent for television advertising so that the basic affiliate in a metropolitan area would receive only its fair share, but that the diversion of part of those funds to the area station would still not raise the total television advertising expense to an uneconomic point?

Mr. HOOVER. Yes; in other words, an advertiser basically thinks of spending X number of dollars to cover a thousand homes in the country. Now if the metropolitan station is actually delivering coverage to only two-thirds of the homes that this advertiser is paying for—actually delivering coverage—although it is getting money for a hundred percent of them, that other one-third, diverted into in-between or local or area stations, would just about cut the mustard as far as giving the advertiser coverage all over the area, dollars-and-cents-wise.

Mr. Cox. Would the funds thus diverted from the metropolitan stations be enough to support stations out here on this fringe, and keep them in business?

Mr. HOOVER. Well, I think yes. For example, in my own operation we keep the expenses down quite low. We are operating with a smaller staff. We don't have to have all of the show that a metropolitan station does have to have. We can actually get along on less dollars in our operation.

Mr. Cox. Would this serve to fill in the gap between what you can raise from national spot and local advertising?

Mr. HOOVER. That is right; it would aid in the basic problem of any station, better programing. If you get that, you can solve most everything else in this industry.

I am sure all of you gentlemen know that there is a limit to the number of advertising dollars which can be generated for use in television. It is my firm conviction and belief that if those dollars were spent for actual coverage, rather than for theoretical coverage, the television industry would be much stronger financially today; the possibility of the development of better regional and local stations would increase 10 percent; and the American people would have the opportunity to receive more and better television programing than ever before.

To this point I have only described to you what happens in the instance of adjacent channel interference factors. The same situation, basically, exists in the instance of cochannel interference factors. Take, for example, 2 stations 200 miles apart in zone II, both in metropolitan marketing areas, operating on maximum power, utilizing

tremendous antenna heights. Almost without exception there is an area between those two stations which receives a signal from both stations. The viewer is trying to receive this direction, and his antenna is headed in this direction [indicating], and at the same time there is a program from another station, on the same channel, on the same set. You cannot receive two programs on the same set on the same channel at the same time, so there is tremendous interference.

But when a local or area station is developed and built to serve the in-between area, the advertiser is not disposed to buy the area station because he has been misled into believing that he already has bought, paid for, and has coverage in the area in question. And he will pull out one of these coverage maps I have referred to, with the big vast circles, and use that as his proof and evidence to you that he has coverage in the area. Therefore, he has no logical reason to buy the local station.

The networks, dedicated to the proposition of covering America with the smallest number of stations, aren't going to go to the advertiser and tell him this interference exists, because the advertiser would then expect the rate on the basic station to be reduced. To be sure, the basic network station isn't going to tell the advertiser the truth, because he fears the loss of revenue. And, as a result, under the cochannel interference situation, the advertiser and the American public are still being cheated. Then, when an area station begins to prove to the advertiser that he is being cheated, we have such situations as I described earlier in the satellite operation, where they begin to develop and fill this hole with a satellite operation.

With these facts before you, I am sure you can readily see why local and area television stations are being strangled to death. They are being deprived of any save the few crumbs from the advertising-dollar pie. If they were being deprived of these dollars justly, it would be a different thing, but actually they are being deprived of them in the most dishonest approach yet conceived in this industry. In my personal contact with advertising agencies up and down Madison Avenue in New York City—when I point out by both map and surveys the interference situation and how they are being hoodwinked—nearly without exception every agency says: "We need so badly this sort of factual information with regard to the coverage of stations." Of course, the local or regional station, struggling for existence, with small revenue and limited personnel, has few dollars to spend in advertising, and only on occasional visits to the advertising agencies is able to tell his story. On the other hand, the metropolitan network basic affiliate station spends enormous sums of money advertising and promoting his tremendous coverage, based on the maps now filed with the FCC. He further has ample funds to send personnel up and down Madison Avenue spreading inaccurate propaganda.

Each network, through its respective sales personnel, wishes to boast of the most powerful station, and the most coverage for its affiliates, in each of the basic markets. So the network salesmen start beating the drum for this tremendous coverage, inaccurate though it may be. What is the advertiser to think? Who is he to listen to? The loud screams of the network affiliates in metropolitan areas, or the tiny voice of the local and area station that is telling the logical and truthful story regarding coverage? Place yourselves in the position of those time buyers, gentlemen. Which story would you listen

to? These are the reasons why this committee, if it does nothing else throughout its entire investigation, should force the development of coverage maps based on actual coverage to the 100 microvolt contour of interference free signal. This would accomplish more toward the growth and development of the television industry for the service of all the people of the United States than anything else this committee can do.

Mr. Cox. Is this 100-microvolt contour as satisfactory for stations in the high bands as it is for stations in the low VHF band?

Mr. Hoover. I operate a high-band channel 10-VHF station. I do find that the viewers out at my hundred microvolt contour say they receive a satisfactory and adequate signal. Now you are asking me an engineering question which, frankly, I am not capable of answering, except to say that in our own experience, viewers state that they are satisfied that they can get a receivable signal at a hundred microvolts.

Mr. Cox. Does this require a more sensitive receiver and any additional expenditure for antenna, or can this be done with medium-priced equipment?

Mr. Hoover. Pretty well standard equipment.

Now I have had our consulting engineers, Vandivere, Cohen & Wearn, prepare for me coverage maps under the present standards for certain existing areas, and superimposed on those coverage maps, each station's coverage based on the standards set forth in the third notice, which take into consideration cochannel and adjacent-channel interference factors. If you will turn with me to the exhibits attached to the back of this statement, you will quickly see what I am talking about in a very graphic manner.

Now for ease of understanding—and something that you can drive out in your car and check, you folks who live here in Washington—we did a map on your own local station, WRC-TV, right here in Washington, channel 4. Now the outer circle [indicating the map]¹ is the 100-microvolt contour. You will notice that to the northeast WRCA-TV, on channel 4 in New York, renders interference to quite a slice of territory; and there is one point that I have not made through these maps that I would like to make here. If we had the coverage of WRCA-TV's map, we would find the same sort of interference being applied on WRCA as on coverage by WRC.

Now to the southeast you can notice that WUNC-TV down at Chapel Hill, N. C., operating on channel 4, provides interference, and WUNC has interference from WRC. Both of those are cochannel interference factors. Now for adjacent channel interference factors, WSVA-TV over here at Harrisonburg, Va., on channel 3, interferes to a great extent on the west side. Now the number of homes in the white area inside is considerably less than the number of homes in the overall large circle.

Mr. Cox. Actually, this is an unusual circumstance, Mr. Hoover, in that included in even the remaining white area is the city of Baltimore which has its full complement of three television stations, and actually advertisers, in buying coverage in this area, buy both the Baltimore and Washington stations.

Mr. Hoover. That is right, but it does not necessarily hold when you get out West and in many other areas of the country.

¹ It was not possible to reproduce any of Mr. Hoover's maps. However, they will be retained in the committee's files.

Now we went up to Boston [referring to map]. There you have a pretty true circle except for the one big slice taken out of the southwest side—interference also from WRCA-TV.

The next map [referring to map] we dropped out to the Southwest, my part of the country. We have a map here of KRLD-TV, channel 4 at Dallas. You will notice that it receives interference from WKY-TV in Oklahoma City. Both stations are on channel 4, and the 2 stations are basically about 200 air-miles apart, just over the minimum necessary separation for 2 stations on cochannels.

The next map [referring to map] is WKY-TV, Oklahoma City. You will notice the interference from KRLD-TV, the map we just looked at here. It goes up to the city of Pauls Valley. Now my hometown—you will notice Pauls Valley is in the shaded area due south of Oklahoma City—my home is Ada, some 20 or 30 miles east of Pauls Valley. Now compare the population area from north of Pauls Valley down to Sulphur, in the southern stream of the hundred-microvolt contour. Do you see that slice in there [indicating]? Now there is a station on channel 12 that is being developed at Ardmore, Okla. That station is going to operate on about 25,000 watts, which basically will give it about 30 miles' coverage, which will just about reach up to Pauls Valley there—from Ardmore to Pauls Valley. It will just fill in that gap real nice for a fellow by the name of WKY, and Ardmore is going to be an off-the-air pickup from WKY. It is already stated in the newspapers.

Now they have got a studio—they are going to have a studio and they are going to do a newscast once in a while, but it is already openly said that they are going to be carrying the programing—both locally originated, film and network—from WKY.

Mr. Cox. When this Ardmore station received its construction permit, at that time was there—

Mr. HOOVER. It was 2 years ago, the same time I got mine.

Mr. Cox. Was there at that time any representation to the FCC that the station would be operated as a satellite?

Mr. HOOVER. On the contrary, it states that it will be a legitimate local station. Now the point I am getting ready to make here is this: If the coverage standards as proposed here were adopted, then Ardmore, sitting down here in its position, wouldn't have to go into a satellite operation to WKY or me or anybody else. They could make a legitimate deal with, certainly, one of the three networks and operate a legitimate station.

Mr. Cox. Do you mean because they would be able to sell coverage in this cross-hatched area [indicating]?

Mr. HOOVER. That is right, because the advertiser would be told in the beginning, "WKY comes down here to north of Pauls Valley. This is our interference area. Now if you want the rest of this, here is a station you can buy."

Mr. Cox. Now does KTEN provide coverage in at least part of this shaded area?

Mr. HOOVER. It provides coverage in the majority of the shaded area. I have saved the worst till last. It is the last map we will look at. You can take a look at the last map [referring to the map] and I think you will see the point we are talking about.

My statement with regard to my own coverage is this: I couldn't show everybody else's weakness and not show my own. I am cut off at least a third, or maybe more, in my coverage area there by KWTV. But if I can only get credit for two-thirds of my service area—and I legitimately deliver service to two-thirds of my coverage area—and I get more for two-thirds of my coverage area, then that is well and good. When you make a rule it has to cut right down the middle and take a little shave off everybody. As you can well see, Ardmore is well inside our coverage area in this Pauls Valley thing [indicating], and I have been getting a good deal of network programs—NBC network programming—on a per-program basis.

Mr. Cox. WKY is a basic NBC affiliate?

Mr. Hoover. Yes. That is why I think this arrangement has grown so rapidly—because we are making tremendous headway in pointing out and proving to the advertiser, "Well, you need us down here." But I have to do it all myself, and have to unsell them on one coverage and sell them on another.

Mr. Cox. Do you concede this interference with your own signal in your sales efforts?

Mr. Hoover. I absolutely do. I have sales coverage maps—my normal sales coverage maps—that I would be glad to show you. In fact, in our market data we only count 18 counties in southern Oklahoma. Our transmitter is at the northern extreme of Pontotoc County and we don't even count Pottawatomie County, which is 10 miles to the northwest.

Now every time I get out on a limb, they saw it off behind me, so I have to tell them exactly what we do cover. All right, you can see the WKY problem. And then here are a couple of other stations in Oklahoma: KTVX, an ABC affiliate, between Muskogee and Tulsa, which suffers interference; and KWTV, the CBA station in Oklahoma City, which gives me interference, and I give him interference, and Muskogee gives him interference, and he gets just a little bit from Wichita, Kans. But you can see from these maps what I am talking about, gentlemen [referring to maps].

Mr. Cox. Now these, I take it, Mr. Hoover, are still, however, simply engineering calculations based on average standards, without reference to actual conditions in the field?

Mr. Hoover. These are calculations as set forth in the third notice—the standards of calculating the figures based on the station's antenna height, its power, the interfering station's antenna height and power. All of that is already set out in this third report.

Now, for me to argue that this is the exact figure and ratios to be used that were set up in the third report—and whether they hit the line just exactly right or not, I am not capable of making that statement. I am simply saying that interference factors—both cochannel and adjacent channel—do exist and they should be calculated, and the third report looks to me like a mighty good start in that direction.

Mr. Cox. It still would be possible that no matter how these standards were refined, under actual conditions, reception could be obtained in areas which would apparently be in interference zones, and in other cases the interference zones might be larger?

Mr. Hoover. I submit to you the fact that radio for 30 years has been figured that way, and they hit it pretty close.

Mr. Cox. I note on your map for the coverage of KWTV, in Oklahoma City, you indicate that the interference by K TEN is sufficient to prevent that signal from being satisfactorily received in Ada. Now, are there sets in Ada which actually get a picture from KWTV?

Mr. Hoover. That is true. There are sets in Ada that can actually receive KWTV, even though this interference line shows that they cannot. Now, these sets are the fellows who have an exceptionally good television set—an expensive one—with an exceptionally good antenna system with a rotor, whereby they can do sufficient turning and adjusting to cut K TEN out. Now, I believe the last survey, taken in January, shows about one-third of the people can watch KWTV. Another thing about this one-third percentage, that was actually taken by telephone survey, it was based on an all-day proposition, and we weren't even on in the morning. So naturally when we are not on, it is just as true as can be. When K TEN is not on, it is just clear as a bell in Ada. But we are on from noon on, and we expect to get back to sign-on in the morning, just like any other station, as we grow and progress.

Mr. Cox. In other words, there is an additional factor which is not taken into account in these calculations, which is the angle between the two transmitters?

Mr. Hoover. Absolutely. In other words, an antenna faced basically toward Oklahoma City that is in such a location that K TEN's signal hits the front of that signal, K TEN will render tremendously more interference to KWTV, or vice versa, in either instance, than it would render if this home set were around so that K TEN's signal only hit the little round end of the antenna instead of the face of the antenna, where it should hit. So to stay up to this line is one thing, and from here on is another; you cannot do that in this industry. It is shades of gray down to black from white to black. You can't make any one flatfooted statement. But when in doubt—the way it sets now—when in doubt, give it all to the basic network affiliate, and then if there is any more doubt, we will add a little bit more to them.

All I am saying is: Let's get some facts on this coverage area, and then let the advertiser pay for the coverage he legitimately is getting from each station, and this industry will be healthier.

Mr. Cox. Now, these calculations that have been made here by your engineers are based on the standards of the third notice?

Mr. Hoover. Yes, sir.

Mr. Cox. Which, as I recall it, are based on the assumption that interference exists where the signal strength received from the two stations is equal. Now, is there a possibility that that standard is too conservative; that you could get interference-free service in this shaded area because of the application of a different factor—a factor, say, that if the ratio of the desired to the undesired signal were such that there was 10 decibels greater strength—that you could get a reduction in this shaded area?

Mr. Hoover. Well, I think you are trying to get across to me and ask me are these standards exactly precise and correct, or can they be improved upon, due to better equipment today. I am not an engineer. I can't answer positively. I am inclined to believe that the standards set forth in the third report, it would be well to reevaluate them. But whatever that reevaluation is, in the light of all of the experience since 1951 and the improvement in reception and antenna gains, and

that sort of thing—whatever that is, let's find out what the interference factor is and put it down and sell on that basis.

As I started previously, anyone can put his finger on a problem. The thing needed here is to aid in the solution of the problem. I, therefore, respectfully request that this committee take immediate steps to aid and encourage the FCC to immediately adopt the standards of engineering with regard to coverage area as set out in the third report—and I should qualify that by adding, studies made based on the third report and in the light of new developments—taking into consideration cochannel and adjacent channel interference factors.

Now, there are those who will say that such action will throw the television industry into a turmoil, and will call for a complete new set of market evaluations, and so forth—they can give you many reasons. It is true that the development of honest coverage maps would necessitate the addition of a number of television stations to various networks, in order to deliver to the advertiser the coverage he has been led to believe he is now receiving. It is also true that it may be necessary to reduce the rate now enjoyed by some of the metropolitan basic network stations, because they are charging for coverage they are not now delivering. It is also true that this will make for a headache for the advertising agencies, their research departments, media directors, and time buyers; but I believe that almost without exception these people, charged with the responsibility of buying the most coverage for the advertiser's dollar, will be most happy to be furnished with honest coverage maps rather than misleading big fat circles.

Just watch, gentlemen. Those who will cry the loudest and fight the hardest against the adoption of the proposal here today will be the ones who stand to lose a buck. They will be the ones who lack foresight in the growth and development of this tremendous industry. They will be the ones who will label themselves completely disinterested as to whether all of the citizens of America should have good television service. The ones fighting this proposal will be the fellows who have got the buck—the big piece of the advertising pie—and who do not want to share it with any one, nor do they intend to if they can help it.

Gentlemen, you can expect the networks to throw their support behind them, because the opposition will be from the basic network affiliates in most instances. I am not necessarily saying that the networks will throw their support behind the opposition of this proposal because they want to, but because they feel they must support the fellows on their team.

In summarizing the first two points of this testimony—it is human to make errors. At this point I want to say that I, personally, do not believe that the Federal Communications Commission, in the errors it has made, has made them intentionally. In fact, I believe the rules and regulations as they are written today were written in good faith. But when new problems arise, new rules must be written to correct them.

The problem of satellite operation has been basically nonexistent until now. But the satellite problem exists because of present loopholes in the FCC rules which allow an applicant to apply for a legitimate television station, and then, after receiving his construction permit, arrange for programming on a satellite basis through a letter

of agreement, which does not have to come before the scrutiny of the Federal Communications Commission, and go on the air as a satellite—thereby operating as a crutch, in many instances, to a basic network affiliate, as described at the beginning of this testimony, and not in the manner he promised the FCC he would operate his station in his original application-for-construction permit.

To say that the loopholes exist due to error or lack of foresight would be incorrect, but to allow such error to prevail in the face of the points made here today would certainly be a lack of foresight. Due to the normally slow development of FCC rule changes and additions, it is of the utmost importance that this committee encourage the FCC to move with extreme rapidity toward the solution of the satellite problem.

The same statements made with regard to satellites can also be applied to the FCC rules regarding station coverage. Now that fact and experience are available to the FCC, it is sheer folly for this industry to continue to operate under theoretical coverage maps instead of accurate, honest maps; and unless this committee, through official action, pushes hard on the FCC to take immediate action on this very important problem, more and more damage will result to our industry.

In summary of these points, human error can be understood and forgiven, but to allow human error to prevail when conclusive evidence is available and changes must be made, is sheer folly.

The third and final area of consideration in this testimony is one near and dear to my heart, namely, the struggles of an area or rural station for existence under the present standards. Whether one is operating a rural station or a basic network affiliate, there is one factor upon which the success or failure of any station depends. That one thing is programing—quality programing that will attract and hold the interest of the public. The public will tolerate an exceedingly poor picture in order to see the program it desires. A local or area station does not have the talent, nor money, available to independently initiate programing of the quality to captivate the interest and attention of the viewing audience for long periods of time. Therefore, the availability of network programing is of the utmost importance in the success of a rural or local station.

With the attitude of the networks in general, and particularly those described by Senator Bricker in his report, it is virtually impossible, for an area station to develop a satisfactory network contract. This statement is particularly true when the area station lies within the fringe area of a basic network affiliate, because then the area station must fight not only the "few station attitude" of the networks, but it must also fight the power and prestige of the basic network affiliate which has the ear of network personnel. Then, of course, as I have pointed out previously, as long as a metropolitan station can, through inaccurate coverage maps, mislead the advertisers into thinking the coverage of the metropolitan station is one big perfect circle, why should the advertiser pay for the same audience twice—once on the metropolitan station and again on the local station? As long as coverage maps based on the present standards are used as official coverage areas of stations, the area or rural station will have a tough time convincing the advertiser of the truth.

Another problem which an area or local station is forced to cope with in regard to selling network advertisers is this: After the station has successfully completed a selling job and the network advertiser has agreed to buy the program on the local station, in many instances the network sales personnel will actually endeavor to "unsell" the advertiser on placing the program on the local station.

Mr. Cox. Has this been actually reported to you in cases involving your station?

Mr. Hoover. I will simply say that it was official at one time—and I will later cover that—that that was going to be the intention. "You can go out and sell all you want to, but we are going to counsel with the advertiser to see if it is really wise to buy your station."

Mr. Cox. Which network made these statements?

Mr. Hoover. That was CBS. However, they have changed that—and I am making that point later. They point out to the advertiser the folly of spending the extra money for coverage which—according to network figures, maps, and their research departments—the advertiser already has through the purchase of the basic affiliated station. And at this point the network sales personnel will pull out the maps referred to earlier, showing a tremendous circle of coverage, but which does not take into consideration adjacent channel and cochannel interference factors, and show the advertiser why he need not buy the local station.

Naturally, the advertiser, having done business with the network for so many years, finds it difficult to believe the sales talk of the local station as against the word of the network's research department, and thereby many, many times orders will be killed even after a good selling job has been done.

At this point I should like to say that just recently the CBS network has amended its attitude toward the local or area stations. They now point out to the advertiser that the local or area station will, according to their calculations, add only X number of homes to the advertiser's viewing audience, and they leave the ultimate decision to the advertiser as to whether the extra number of homes—which I believe is minimized by the network—is worthy of an order.

Mr. Cox. What is the station rate which your station now charges for programing?

Mr. Hoover. \$150 per nighttime hour for network.

Mr. Cox. Now, do you know what set count is conceded to your station by the various networks?

Mr. Hoover. They change from time to time and, of course, in most instances, I am not notified of the network's calculations.

Mr. Cox. What is your claimed set count for your effective service?

Mr. Hoover. I have made a practice of utilizing the figures set out in Television magazine, sir. When I first started selling advertising, I got the Manufacturers Association's figures, county by county, and would add them up, and that sort of thing, and I would go into New York and quote such and such a figure that I thought to be correct. And people would pull out a magazine and look back through there and say, "Well, this says you have only got so much." So I gave up trying to argue and qualify that. I just use the other figures and seem to get along with TV nicely, sir. In other words, if I use the other fellow's figures, I don't have to justify them, in the first place, and if

I deliver more than the other fellow says I am going to, I have a happy advertiser and I keep him.

Mr. COX. What figure does Television give you?

Mr. HOOVER. It gave me 91,000 sets in the most recent issue I can remember.

Mr. COX. Is that based on the full circle or does that take into consideration interference?

Mr. HOOVER. They do take into consideration programing and other signals coming into the area, and that sort of thing. I am not qualified to go into the formula that they use to determine these sets, but it must have some authenticity because so many of the folk of the industry will accept the figure as a reasonable one—and after all, that is the true value of the thing.

One other point in this regard—the networks, in taking this action of unselling the advertiser, do not always necessarily do so because they want to, but because they feel they must in order to maintain harmonious relations with their basic affiliate. And, in theory, they point out that it is not fair to charge an advertiser twice for the same coverage. To this point I agree. But it is fair to let the advertiser pay the station which delivers the coverage, rather than pay the network's basic station and let the area station go hungry.

Then there is the agency that buys time in behalf of the advertiser. The agency's personnel is human—just like you and me. They are subject to human habits, such as you and I. Yes, advertising agencies, time buyers, and research departments many times buy on a habit basis—and that habit buying has been on the basis of metropolitan basic network affiliates. It is as hard to break a buying habit at the advertising agency as it is to break yourself of a personal habit. This tends to become a problem for the local station. But if, after perseverance, the local station begins to make too much headway—begins to get too many national advertisers—begins to drive the truth home about metropolitan coverage—then he must worry about the development of a satellite operation in his own backyard which will be controlled by the basic network affiliate. Then all of the truth and fact which he has presented to the advertiser goes out the window in favor of the satellite.

At this point, I will simply say that it takes a brave soul to apply for, build, and operate a legitimate local or regional television station in the face of such odds. However, if the suggestions and proposals set forth here today were expedited and developed into official acts by the FCC, the life of the local or regional television station would be a more tolerable one. Certainly the prospects of success would be increased enough to justify more citizens of the United States to invest their dollars in the building and operation of local and regional television service—and that, I believe, is the basic goal of the FCC Act, namely, to have as many people as possible over the United States receiving good, local television programing and service.

As a regional television operator, already caught in the vicious vice previously described, I have dedicated myself to the proposition of doing all within my power to get the rules and standards by which we must operate our stations adjusted and amended to the point that local television service can be developed community by community over this country.

Gentlemen, I wish to express my sincere appreciation and thanks for the time and interest given me in behalf of rural, area, and local television operators. Only in America, under our form of government, could the underdog be heard—and under the present standards, the rural and area television stations certainly are the underdog. Only in America could our problems be presented, and could we expect serious, wholehearted cooperation and consideration to be expended in the solution of our problems. It is my sincere and honest belief that a quick adoption of the proposals I have discussed would help materially in a rapid and successful growth of television service to many, many more citizens of these United States, and none of the proposals will be at the expense of any just person, cause, station, or network.

Thank you.

SENATOR WOFFORD. Thank you very much, Mr. Hoover, for coming to testify. We shall take a recess for about 5 minutes.

(Recess taken.)

(The maps referred to by Mr. Hoover are on file with the committee.)

[Inserted on June 11, 1956, with its enclosures]

TELEVISION STATION WKY-TV,
Oklahoma City, Okla., May 22, 1956.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

DEAR SENATOR MAGNUSON: It has come to the attention of WKY Radiophone Co., licensee of WKY-TV, Oklahoma City, Okla., that on May 14, 1956, Mr. Bill Hoover, representing KTEN, Ada, Okla., appeared before your committee. In Mr. Hoover's statement inference was made that KVSOTV, Ardmore, Okla., would pay our company a service charge for the permission we have granted KVSOTV to rebroadcast our transmission.

This inference is incorrect and without foundation of fact as are other references to WKY-TV made by Mr. Hoover as indicated in the report of proceedings. WKY-TV will not receive directly or indirectly any financial return from the operation of KVSOTV.

For the information of the committee we are furnishing herewith, as enclosures 1 and 2, copies of letters covering our authorization to KVSOTV, and our permission to do so from the National Broadcasting Co. Copies of these letters were filed with the Federal Communications Commission on April 26, and May 4, 1956, respectively.

It is requested that this letter and enclosures be made a part of the record of the hearings before your committee.

Respectfully,

WKY RADIOPHONE CO.,
P. A. SUGG,
Executive Vice President.

ENCLOSURE 1

OKLAHOMA CITY, OKLA., April 26, 1956.

KVSOTV,
Ardmore, Okla.

GENTLEMEN: This letter will confirm our conversation and understanding that until further notice to the contrary is given, KVSOTV may rebroadcast the programs of WKY-TV, Oklahoma City. The permission granted herein is subject, of course, to KVSOTV securing direct from the originating network specific authority to rebroadcast the programs of that network which are transmitted by WKY-TV. Insofar as the locally originated programs of WKY-TV are concerned, it is understood and agreed that KVSOTV will receive no compensation whatsoever from WKY-TV for the rebroadcast of the programs in question, and that KVSOTV will make independent arrangements with ASCAP and BMI for

the payment of any and all royalties which may be due as a result of the programs rebroadcast by KVSO-TV and that your station will take all steps necessary to secure permission from the owners and distributors of film programs transmitted by WKY-TV prior to the rebroadcast by KVSO-TV.

It is further agreed that KVSO-TV shall pay all charges and fees that may be imposed by the owners of film and syndicated programs rebroadcast by your station and that KVSO-TV will hold WKY-TV harmless from any liability that may result from the actions of your station in the rebroadcast of programs originating over the facilities of WKY-TV.

It is requested you acknowledge receipt of this letter by signing the enclosed copy and returning it at your convenience.

Very truly yours,

WKY RADIOPHONE Co.,
By P. A. SUGG,
Executive Vice President.

Accepted this 26th day of April 1956.

KVSO-TV,
By JOHN EASLEY RIESEN,
Authorized Signature.

ENCLOSURE 2

NEW YORK, N. Y., *May 1, 1956.*

WKY RADIOPHONE Co.,
Oklahoma City, Okla.

GENTLEMEN: We hereby consent to your giving permission to the operators of station KVSO-TV, Ardmore, Okla., to pick up and rebroadcast over their television transmitter KVSO-TV such NBC television network programs broadcast by WKY-TV as we may from time to time designate.

The permission hereby granted may be revoked by us at any time upon notice to you of our intention to do so.

Very truly yours,

NATIONAL BROADCASTING Co., INC..
By DONAL J. MERCER.

TELEVISION INQUIRY

TUESDAY, MAY 15, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to notice, at 10 a. m., in room G-16, the Capitol, Senator Frederick G. Payne, presiding.

(The first two witnesses heard at this time, Wilbur M. Havens and Murray Carpenter, testified with respect to network practices and their testimony is therefore printed in the volume concerned with that subject.

(In the afternoon the committee heard Benedict Gimbel, Jr., and Henry B. Walker, Jr., testify with respect to allocations and related matters. Their testimony, together with certain other material in connection therewith, is therefore printed at this point.)

AFTERNOON SESSION

(The committee reconvened at 2:30 p. m., Senator John O. Pastore, presiding.)

Senator PASTORE. You may proceed, Mr. Gimbel.

STATEMENT OF BENEDICT GIMBEL, JR., PRESIDENT, PHILADELPHIA BROADCASTING CO. LICENSEE WIP, WIP-FM

Mr. GIMBEL. My name is Benedict Gimbel, Jr., and I am president of the Philadelphia Broadcasting Co., licensee of WIP and WIP-FM, of which I am the general manager.

Mr. Chairman, I deeply appreciate the courtesy extended to me by your committee to appear before you this afternoon and furnish information concerning the establishment of a new VHF channel for the United States. Let me preface my remarks by stating that the Radio station WIP, operated by the Pennsylvania Broadcasting Co., of which I am president, has filed comments with the Federal Communications Commission concerning this particular matter in docket 11532.

I also want to state that I am not an electronics expert. I have been in this business of broadcasting for almost 30 years, and it is still all mystifying to me. I listen to my radio, and I still don't understand it—I don't understand how these things are possible. I watch television, and now I watch color television, and it is all magic. I don't believe it is possible, but it is there, and it is happening. I want you to know that I am not a technical man; I am completely untechnical in my approach to this thing.

First, I would like you to know that the interest of WIP in television is not purely academic. As far back as November 1944, we filed the first TV application in Philadelphia. In 1946 the FCC designated four VHF channels for Philadelphia. In 1948 we went through a competitive hearing for a television station. Before a decision was handed down, the TV freeze was imposed, and when it was lifted some 4 years later, by the FCC's Sixth Report, we found to our dismay that the fourth VHF channel, for which we had gone through hearing, had been removed from Philadelphia and reassigned elsewhere.

As you know, the sixth report also established UHF. We immediately applied for and secured a UHF grant. However, after obtaining options on property and ordering equipment, it became apparent before building could commence that it would cost the people of Philadelphia at least \$50 million to convert their sets to tune in our UHF station because there were almost a million VHF sets already in the area, none of them equipped to receive UHF. This being the case, an advertiser would hardly be expected to buy time on a UHF station to present his commercial messages if there was no audience.

Now, I think the committee should know there are three UHF grants outstanding in Philadelphia right now. None have been constructed—as a matter of fact, as far as I know, no construction of any nature has taken place, although one of these construction permits has been outstanding for almost 4 years. It is evident that these UHF permitholders are just as conscious of the dangers involved in operating a UHF station in an established VHF market as we were when we surrendered our UHF permit in 1954.

Even after we surrendered our UHF permit we persisted in our efforts to secure additional TV service for Philadelphia. We made a thorough search of all possibilities and the result is the 6-A plan which we are presenting to you this afternoon.

Your committee, I know, is well aware of the problems that beset television broadcasting in the United States. You have heard a number of persons and organizations tell of the various ills and any reiteration of these ills by me at this time would be an obvious waste of your time. Let me say, too, the FCC is well aware of these problems. As a matter of fact, this 6-A plan of my company was submitted in answer to a request by the Commission for suggestions to alleviate the present television allocation situation which if unchanged will prevent a truly competitive nationwide television service.

Something must be done about this—and immediately. Let me also state that the solution will not be a simple one. This committee, the FCC—in fact, no one can present an easy solution to these problems. I don't think there is a panacea. The plan which I propose to discuss in my testimony, let me admit quite freely, is not a complete solution. But it is a very necessary and quick step in the right direction.

It is now evident that 12 VHF channels are completely inadequate for nationwide service. An additional VHF channel—channel 6-A—will provide definite relief. Why? Because:

1. It will result in 54 additional VHF stations nationally.
2. It can be done almost immediately.
3. It can be tuned in on most present sets.
4. It will add an additional program service for 30 million people.
5. It will add a first VHF service to 17 cities.

6. It will add a second VHF service to 17 more cities.
7. It will add a third or more VHF service to 20 additional cities.
8. It will provide opportunity for increased network competition in these cities.
9. It is clearly within the jurisdiction of the Federal Communications Commission.
10. It requires no negotiation with, or permission from, any other Government agency.
11. It presents no obstacle to any plan presently before the FCC.
12. It causes minimum dislocation to existing TV stations.
13. It will provide an additional TV station for such major cities and trouble areas, as: Little Rock; San Diego; Miami; Chicago; Ames, Iowa; Great Bend, Kans.; Louisville; Bangor, Maine; Bay City, Mich.; Minneapolis-St. Paul; Kansas City; St. Louis; Rochester; Oklahoma City; Philadelphia; Amarillo; Dallas; San Antonio; Charleston, W. Va.; Utica-Rome, N. Y.—I sound like a train caller. [Laughter.]

Senator PASTORE. Let me ask you a question. You say you are not a technician. What would be the technical aspects of this channel that you are talking about?

Mr. GIMBEL. I am coming to that, sir.

Senator PASTORE. You are going to discuss the technical aspects of it, too?

Mr. GIMBEL. Yes, sir.

Senator PASTORE. All right. Then you are a technician?

Mr. GIMBEL. Well, when you see this, you won't think I am a technician. (Continuing.) The plan calls for a VHF station in Philadelphia as well as a VHF station for 34 other important cities.

It will, moreover, augment a number of meritorious plans which at this moment are receiving consideration by the FCC. We are convinced that in these plans the Commission has before it information which, when combined with the 6-A plan, will go far to supply the needs of the public with adequate nationwide service.

Perhaps the real dilemma of the problems besetting television can best be illustrated by considering the situation in Philadelphia. The Commission originally assigned to New York, only 90 miles away, 7 out of the total 12 television channels. This automatically caused underallocation of VHF stations in many cities along the eastern seaboard of the United States.

For example, Philadelphia—with a population of 4½ million people—wound up with only 3 VHF channels. Compare this to Washington, the Nation's Capital, a city approximately one-third the size of Philadelphia, which has 4 VHF channels. I have no thought of condemning the allocation of four VHF channels to Washington. I mention it only to point up the disparity which exists in Philadelphia because of its proximity to New York. The result has been to deny to the people of Philadelphia sufficient television service to fill their needs. By reason of this underallocation, television time in the Philadelphia area is at a premium, so that it becomes increasingly more difficult for meritorious local programs to find good air time.

As an example, the night baseball games of the Philadelphia "Phillies"—of great interest to the people of Philadelphia—can find their way to the homes of Philadelphia viewers only through a Wilmington, Del., station—this is "secondary" reception at best. The three Phila-

Philadelphia stations have network commitments which preclude their presenting the night baseball games.

Of necessity the Philadelphia advertiser has the same problem, and due to the limited television facilities available, he must compete for time against the huge budget of the national advertiser. The peak viewing hours on Philadelphia television stations are now occupied by either network commitments or by package programs purchased primarily by national advertisers. Obviously, a fourth VHF television channel, adding over 100 hours of programs weekly, would provide air time for many additional local programs. I am sure that this is true of all the major markets I have named.

6-A is not an ingenious plan. As a matter of fact, the plan is so simple you might question why consideration has not been given to this before.

Gentlemen, it must be evident to everyone concerned with the problem that the major markets of this country are already saturated with VHF receivers which are not readily adaptable to UHF because UHF needs a separate antenna and a separate tuning mechanism.

The only ready solution, then, to providing the public in these markets with more television service, is to take advantage of existing sets—and since almost 100 percent of all television sets in these markets will tune only VHF, it is only logical that this additional service has to come from the VHF channels themselves, or an adjacency to them.

Now here comes the technical part. This chart, I think, will demonstrate the simplicity of the 6-A plan.

POSITION OF VHF TELEVISION CHANNELS IN SPECTRUM

LOW BAND	HIGH BAND
2	7
: <u>TV</u> :	: <u>TV</u> :
: 6 :	: 13 :
Safety : FM :	Government : Government :
: : :	: : :
& Spec. : : :	: : :
: : :	: : :
Service : : :	: : :

On this exhibit you will note the low band TV, channels 2 through 6, and the high band, 7 through 13. Any channel to be added, which could be tuned on present receivers, had to lie adjacent to these bands. Now directly above channel 13 and below channel 7 are Government frequencies which are untouchable because of national-defense requirements. Immediately below channel 2 are safety and special services, which are also unavailable. This leaves only the space immediately above channel 6, which is presently occupied by FM.

Now, our particular interest in finding space immediately adjacent to existing television channels was because we believed that the tuning range of many existing sets would permit tuning a given channel to either the next higher or next lower channel. In other words, if your set were turned to the channel 6 position, and channel 6 position had sufficient tuning range, it could be adjusted to receive channel 6-A. Experimentally we found this was true. We enlisted the aid of RCA, Philco, and two of the largest service organizations in Philadelphia.

We now have conclusive evidence that about 63 percent of all sets now in use will readily permit tuning of the channel 6 position to 6-A. If one well-known make of set is excluded, the percentage of sets tunable to 6-A rises to 93 percent. This means that no converters—no adaptors, no trick antennas—will be required to receive 6-A on most existing sets.

Mr. COX. Does it require an adjustment in the set?

Mr. GIMBEL. Yes; it does.

Mr. COX. What is the nature of that, the extent of it, or the cost?

Mr. GIMBEL. The cost—a service call and the possibility of the cost of a strip. That is not always the case, however.

Mr. COX. That would depend on the individual set?

Mr. GIMBEL. That is right, sir.

Mr. COX. And a single service call would be enough, with the possible addition of a strip, to permit the substitution of 6-A for 6 on the existing dial of the set?

Mr. GIMBEL. That is right; yes, sir.

Senator PASTORE. Let me ask you another question. Would this be of concern only to those localities where they presently have channel 6?

Mr. GIMBEL. I don't quite understand that question.

Senator PASTORE. Well, there is your chart there. Must you be adjacent to 6 in order to have 6-A?

Mr. GIMBEL. Oh, no. I will develop that a little later.

Senator PASTORE. I would like to have it developed now, if you don't mind, sir. I was reading your train stops here. Why did you leave out Providence, R. I.?

Mr. GIMBEL. It doesn't fit in there.

Senator PASTORE. Well, why doesn't it fit in there; that is the point I am getting at.

Mr. GIMBEL. I believe that under the FCC rules—

Senator PASTORE. In Rhode Island we have channels 10 and 12. Why can't we have 6-A, too?

Mr. GIMBEL. I believe because of mileage separation.

Senator PASTORE. Mileage separation from what?

Mr. GIMBEL. To existing channels—Boston is one. I will have to ask an engineer.

Senator PASTORE. Well, that is the reason why I ask that question about engineering. Is there someone competent to answer that question here?

Mr. STEEL. Yes, sir. I am David Steel. It is because of the mileage separation requirements of FCC rules. If some reduced mileage separations were tolerated, it would be possible to use that station at Providence.

Mr. COX. You could not put it in any market in which there is an existing channel 6 without deleting that channel?

Mr. GIMBEL. Changing to another channel, yes.

Mr. COX. Could you say you propose to use that spot on the dial for another purpose?

Mr. GIMBEL. That is correct.

Mr. COX. As I understand it, your proposal contemplates the shifting of channel 6 for channel 5 in a number of instances?

Mr. GIMBEL. That is correct.

Mr. STEEL. It could be used in any town where channel 5 was allocated.

Senator PASTORE. Have you presented this to the Commission?

Mr. GIMBEL. Oh, yes; this is on file.

Senator PASTORE. Have you had any reaction?

Mr. GIMBEL. No, sir; nobody has had any reaction, that I know of, sir, because I believe that there are some 250 proposals in answer to these comments at the Commission presently, and I haven't heard of any reaction to any of them.

Senator PASTORE. Has there been any remonstrance on the part of FM people in the area that would be affected?

Mr. GIMBEL. No.

Mr. COX. Has there, however, been considerable evidence that even a comparatively minor expenditure—in the neighborhood of \$5 to \$10, which I think you suggest as the maximum charge of this adjustment—is enough to discourage a substantial part of the public from making that change as long as there is any other service available?

Mr. GIMBEL. I don't know that there has been that experience.

Mr. COX. In other words, you would have this situation if you dropped channel 6-A into Philadelphia: The people who have asked to spend \$5 to \$10 to get this new channel already have available to them the programming of the three national networks through the local Philadelphia stations and they have an independent station at Wilmington that they can receive?

Mr. GIMBEL. Yes.

Mr. COX. Now, isn't there great danger that at least several hundred thousand of them are not going to be willing to spend even \$10?

Mr. GIMBEL. That I think is correct. That is a calculated risk.

Mr. COX. This is a risk that anybody applying for such a channel would have to take?

Mr. GIMBEL. That is correct, because as I pointed out earlier, there are programs that are unable to come into Philadelphia and get satisfactory service. The baseball games, for one—I think many people are willing to pay six bucks to see even the Phillies. That is one of the problems, and that is a risk we have to take, but I feel sure that a lot of people wouldn't pay that.

Senator PASTORE. Well, there is no imposition upon the viewer—this is something in addition to what he already has, and if he is willing to receive this new opportunity of a channel, then of course he can undergo this expense you are talking about?

Mr. GIMBEL. That is right.

Senator PASTORE. It isn't injuring him in any way?

Mr. GIMBEL. It isn't, no. It is like a person using a toll road. He doesn't have to use the toll road, he can get to where he is going without paying the additional 50 cents; but it is sometimes better and you get more service—you get more program service if you get another channel.

One problem remained. If we used 6 megacycles taken from the FM band, what would we do with the FM stations displaced? Our consulting radio engineers were directed to explore this problem. They found that all existing FM stations could easily be accommodated in the remaining portion of the FM band, requiring no more than replacing the crystal and retuning the transmitter. In addition, room for expansion still would exist in the FM band. In our comments to the FCC we supplied a table showing where each FM station

affected could be reassigned. It is therefore obvious that channel 6-A can be utilized right now without deleting any FM station.

Mr. COX. Are these changes you propose only necessary in the transmitter? Could you continue to receive all of these adjustments without any change in the sets?

Mr. GIMBEL. In the sets themselves, yes; there is no change required in the set at all.

Mr. COX. All that you are doing is shifting these stations about within the existing allocations to the FM service?

Mr. GIMBEL. Except possibly in such a service as storecasting, there might be a change.

Mr. COX. Isn't it true that 4 of the 6 megacycles are permanently reserved to FM educational service?

Mr. GIMBEL. Yes.

Mr. COX. Now, is it your position that those can also adequately be taken care of?

Mr. GIMBEL. Yes, adequately, and we have provided such a plan. It is on file right now with the Commission, with our comments.

The committee should be reminded here that the channel 6-A plan is entirely within the jurisdiction of the FCC without negotiation with, or permission from, any other Government agency.

I do not want this committee to get the impression that there are no problems which will result from the adoption of this plan. Any solution is bound to raise some problems. In fact, every plan pending before the FCC presents some difficulties. However, we believe the 6-A plan problems are minor.

We have told you some FM stations would require relocating within the present FM band. This could be done with small expense. Although one television station in Richmond, Va., one in Johnstown, Pa., and one in Plattsburg, N. Y., will be required to shift to channel 6-A, this problem simply resolves itself into the arithmetical consideration of 3 markets as opposed to 54. In balancing the equities there can be no doubt that service to 54 markets with 30 million people is paramount to the temporary inconvenience, in 3 markets, of 1,200,000 people.

Mr. COX. However, in those instances you would not be providing channel 6-A as an additional service—you would provide it as a substitute for existing service?

Mr. GIMBEL. That is correct.

Mr. COX. And you would, therefore, require all the viewers in Richmond and the other two markets you have named to make this minor expense to continue to receive the same service they presently have?

Mr. GIMBEL. That is right, but some of them could get it. I think by and large it would require some readjustment, yes, sir.

Senator PASTORE. Sir, the thing that is disturbing me at this point—I don't know whether it is really a disturbance—you say here you were invited by the committee to appear here to make this presentation.

Mr. GIMBEL. Yes, sir.

Senator PASTORE. Who invited you?

Mr. GIMBEL. I was told by our attorneys we were invited.

Mr. Cox. They asked to be heard and then we communicated with them.

Senator PASTORE. I don't mind hearing this, but wherein do you think this matter that you are bringing up falls within the jurisdiction or the province of the Congress? Isn't this a matter to be decided by the FCC?

Mr. GIMBEL. It is in the hands of the FCC presently.

Senator PASTORE. That is why I asked you whether or not there was a response to the presentation that you made. You wouldn't expect us to introduce a law here to allow 6-A, would you?

Mr. GIMBEL. I feel this way about it, Senator. This is so important that I want to take every opportunity to express this plan—any forum I can—to express this plan to expedite its development. Now, the FCC has got lots of plans. We think this is a very good one.

Senator PASTORE. Yes, but you have explored it with the proper agency of the Government that has jurisdiction to determine it, and I am asking you, in what respect do you think that we can guide this on 6-A? You are familiar with the function of the Congress?

Mr. GIMBEL. Well, I feel this way—

Senator PASTORE. You feel if you say it twice, it is going to be stronger?

Mr. GIMBEL. Possibly.

Senator PASTORE. Well, all right, then, say it.

Mr. GIMBEL. In four other markets—namely New York, Washington, D. C., Schenectady, and Philadelphia—the station assigned to channel 6 must move to channel 5 and the station presently on 5 to 6. Again, this can be accomplished at inconsequential expense. It could be done overnight and the following morning the public would simply tune to channel 5 instead of 6, and vice versa.

For a moment, let me touch on the receiver questions with respect to channel 6-A. We have determined, through our own resources and with expert advice, that most existing receivers can be readily tuned to the new channel. The remainder will require minor modifications. However, it should be borne in mind that every new television set now on the production line could readily include provision for channel 6-A as soon as the plan was adopted.

You should be mindful of the following statements of the Chairman of the FCC, Mr. McConnaughey, and I quote:

* * * there are not enough competitive facilities in the largest centers to completely serve the needs of the public or of advertisers. * * * we cannot delay consideration of every constructive suggestion for making available at the earliest possible date, competitive assignments in those communities where the economic potential already exists and where entrepreneurs are ready, willing, and able to build new stations. [Emphasis supplied.]

We are mindful of the FCC's desire to provide a nationwide, competitive television broadcast service, and are further mindful that the Commission has been besieged with plans requiring wholesale reallocation and widespread receiver conversion or replacement.

Before permitting such disruption to the television industry and the public, it would seem more logical to put into operation a plan for securing additional VHF television service in that area of the spectrum which is readily adaptable to present day receivers. Furthermore, space for 6-A would be taken from that portion of the spectrum

which is not now fully utilized. Therefore, in line with the philosophy of the Commission and its Chairman, we have submitted this morning to the FCC a petition asking that immediate rulemaking proceedings be instituted to incorporate channel 6-A as part of the television broadcast service.

In conclusion, let me emphasize that it seems a crime to waste such valuable potential VHF channel space, so readily available. This committee and the FCC have indicated that they want an immediate and practical solution to this problem. We are convinced, from all indications both of this committee and of the Commission, that the solution reached this time will be final and permanent.

Summarizing quickly, the 6-A plan should be adopted by the FCC because:

1. It supplies additional VHF service to 54 markets totaling 30 million people throughout the Nation.

2. Most receivers will tune readily to the new 6-A channel. The remainder will require minor modification.

3. The 6-A plan conforms to all present standards including mileage separations.

4. It increases competition by providing additional outlets for network service.

5. It increases competition between stations, which results in better programs.

6. The 6-A plan is entirely within the jurisdiction and rulemaking power of the Federal Communications Commission.

We feel that this is the last trip to the well. If this plan is not adopted, we are convinced that the city of Philadelphia as well as other major markets will be forever deprived of adequate television service.

Let me say again, that I appreciate sincerely the opportunity to appear before this committee. If there are any questions the committee would like to ask of me, I'll do the best I can to give you an answer.

SENATOR PASTORE. Well, let me say to you, Mr. Gimbel, that you make a rather persuasive argument. Of course I am not competent or qualified to determine the technical aspects of it. Your advisers agree with you that this can be done technically.

The matter has been submitted to the FCC. They have the facilities, they have the technicians, and they have the rulemaking power to give this the consideration that it deserves. I feel—and of course this is where the Congress comes in—that if this is a plan that doesn't disturb any existing facility, but adds thereto and means more service, better service to the people of Philadelphia and other parts of the country, they ought to adopt it, or ought to at least give it serious consideration.

MR. GIMBEL. Thank you, sir.

SENATOR PASTORE. Thank you very much for appearing before us.

(COMMITTEE NOTE: Leonard H. Marks, general counsel for the FM Broadcasters, appeared before the committee on June 11, 1956, to testify in reply to Mr. Gimbel. He requested that his testimony appear following that of Mr. Gimbel, so it is printed at this point, together with a letter dated June 12, 1956, correcting one point in his testimony. (This last was inserted in the record on July 17, 1956, see page 935 below.))

(There is also printed in connection with Mr. Gimbel's testimony a letter dated May 22, 1956, from Morton H. Wilner, counsel for Triangle Publications, Inc., with reference to Mr. Gimbel's proposal. (This letter was inserted in the record on June 11, 1956.))

(After the insertions, the record resumes with the testimony of Henry B. Walker, Jr., at p. 912.)

**STATEMENT OF LEONARD H. MARKS, GENERAL COUNSEL,
FM BROADCASTERS**

Mr. MARKS. Thank you. Before I begin my statement, I would like to ask that my testimony appear following the testimony of Benedict Gimbel of Philadelphia, Pa., who appeared recently before this committee and made suggestions which I oppose. I have written a letter to the committee clerk to that effect.

Senator ERVIN. That request will be granted, if it is technically possible.

Mr. MARKS. Thank you, Senator.

I have a prepared statement which I have made available to the stenographer and I would prefer to speak at this time extemporaneously and give you the gist of our contentions.

I am Leonard H. Marks and I am an attorney with offices at the Cafritz Building, in Washington, D. C. As you have noted, I appear today as general counsel of the FM Broadcasters, a trade organization which was recently organized for the purpose of educating the public on the benefits of FM broadcasting and of protecting the interests of those engaged in FM broadcasting from those who would like to acquire the spectrum space which it has assigned to it.

Now Mr. Gimbel, who testified before this committee recently, has a radio station in Philadelphia, Pa., and desires to engage in television broadcasting. He does not believe that the UHF opportunities in that community would permit him to operate a station successfully, so therefore he has recommended that a new channel be carved out of the spectrum to be known as channel 6-A and that this be made available to those who would like to apply for television broadcasting in certain communities throughout the United States.

Now, in order to get channel 6-A, Mr. Gimbel recommends that six megacycles be taken from the FM band and that the FM stations who might be operating in those frequencies be put elsewhere. He recognizes in his statement that the suggestion is a serious one, that it will cause a certain amount of dislocation, but with true self-interest, Mr. Gimbel feels that it is better to accommodate people like himself who want television channels than to allow FM broadcasting to continue.

Needless to say, we vigorously oppose any such recommendation. Now, I would like to tell you a little bit about the problems of FM, as they have existed for the past 15 years, in order that you might appreciate how serious this suggestion would be. First, let me point out that at the present time there are approximately 550 stations operating commercially on FM. In the State of North Carolina, for example, you may have a personal acquaintance with the fact that no reliable service is available at night on AM broadcasting and that the bulk of the service is rendered through FM. This is true throughout many States in the United States. In addition, there are 125 stations that operate noncommercially and are licensed to schools and non-

profit organizations engaged in educational work. There are 250 manufacturers engaged in the manufacture of hi-fi FM equipment.

Now, FM was the invention of Maj. Edwin H. Armstrong, who has been recognized as one of the truly great American inventors. He was an electronic genius, and when he discovered FM, those in the broadcasting industry recognized—this was about 1939—that at long last there was a solution to the atmospheric interference problems and the other problems of engineering which had beset the radio industry; and so those who were the leaders of the field applied for and received permission to build FM stations. Well, about 50 stations were built and then Pearl Harbor came along. During the time that we were engaged in war, it was not possible to manufacture civilian FM receivers. It was not possible to take the production of the electronic manufacturers and use them for new FM stations, so the 50 stations limped along with a minimum schedule. The public that had sets enjoyed whatever programs were available, but they could not increase the audience.

Now that was fine, as far as it went, until 1945. We all recognized it was necessary for the war effort. In 1945 the FCC started an allocation hearing and they had to find a place for commercial television, and so the engineers had various committees and the industry contributed the best of its thinking. The industry recommended that FM be kept where it was on the 42- to 50-megacycle band, and that television be placed in what is now the UHF. The industry pointed out that FM would not function as satisfactorily in the UHF band, or the 88- to 108-megacycle band, which is now assigned. Major Armstrong, the inventor, and all of the prominent scientists, so testified, but the Commission said "No, we want television to begin to operate where FM now is, and so we are going to move FM," and that was done.

The 50 stations that had been built had to change their equipment to move to new frequencies. Everybody that had an FM set had to scrap it and start all over again. Now, despite that, FM managed to grow so that at the present time there are more than 500 commercial stations operating. Unfortunately, FM stations have not been as prosperous as those engaged in AM broadcasting, or certainly those engaged in television broadcasting, but the public has learned to recognize the importance of this service and has maintained it commercially in those markets where FM stations have been able to operate on a full-time basis. At the present time, at the very minimum, there are 12 million FM sets, having an original cost in excess of \$500 million. Now, Mr. Gimbel's suggestion is that we take 6 megacycles from this band and give it to television and those stations that might be operating in those 6 megacycles will then either be deleted—there will be no service at all—or that they be changed to new assignments.

Now, if they are changed to new assignments, this means getting new transmitting equipment. It means reeducating the public as to where these programs will be found on the dial. In addition to that, some of these FM stations have been able to derive additional revenue by operating specialized services. Two of the more prominent specialized services are functional music or background music and the other is store broadcasting. Functional music is a background music service where receivers are installed in stores, factories, and offices, and all

day long appropriate background music is presented and they pay a fee for the privilege of having this type of service.

The same thing is true in stores like grocery chains, where announcements are made of the products available in the grocery chains. This has been authorized by the FCC and this is a means that FM stations have used to supplement meager revenues and enable them to operate in the black. In order to operate that system, you have to have special receivers in every factory, office, or store that will be tuned to this particular channel. Now, if Mr. Gimbel's suggestion is adopted, those receivers are practically obsolete. The cost of converting them would be almost as great as replacing them with new receivers. Now, we are talking about an industry which has struggled from 1939 to the present time to achieve its proper place in the broadcasting world, an industry that has had more than its usual share of problems—first the war and second the problems created by the FCC's allocation to take care of television.

Mr. Gimbel's suggestion will satisfy the selfish needs, perhaps, in 54 markets of the United States. He recognizes, although he does not tell you, that there will be a number of FM stations that will suffer as a result. Presumably he recognizes that the public will be deprived of FM service in these localities.

In addition to that, three existing television stations located in Richmond, Va., Johnstown, Pa., and Plattsburg, N. Y., will have to give up their present operating assignments in order to accommodate Mr. Gimbel's plan. Now this committee is interested in a solution to the UHF problem, and certainly our organization and anybody in the broadcasting industry wants a solution to the UHF problem; but the Gimbel plan will not solve the UHF problem. It will create an FM problem. The UHF problem is nationwide. It cannot be solved by the addition of one channel. The FCC Commissioners have said that, and every important person in the engineering or broadcasting field that has studied the problem recognizes it; and I don't believe that it would be in the public interest, to the detriment of the FM industry, to try to carve out a new channel that will at best satisfy the limited needs in a few markets.

Let me also point out that channel 6-A will bring with it all of the problems of conversion that UHF has. Mr. Gimbel says they will not be as great as the existing conversion problems, but when you have channel 6-A, every receiver will have to have a tuning strip installed—every person that has a set will have to go to the additional expense of adapting it—so we don't think that that solution is going to be an answer to the UHF problem. And what is far more important to us, the FM industry cannot stand another dislocation such as was caused in 1945, when FM was moved from 42 megacycles to 88 megacycles.

For these reasons, we oppose Mr. Gimbel's suggestion.

Mr. Cox. Can you tell us, Mr. Marks, approximately how many of the FM stations in existence would be in the particular 6 megacycle section that he is concerned with?

Mr. MARKS. Mr. Gimbel has not furnished an engineering plan. He merely mentions 54 markets where channel 6-A might be assigned. There would be a chain reaction when you move stations, and I would not know how many FM stations or cities would be involved. There is no way of knowing without seeing Mr. Gimbel's engineering.

Mr. Cox. As I recall it, he had attached to his comments to the Commission an engineering study which showed the reallocations that would be made in the FM band, as far as television was concerned.

Mr. MARKS. I am not aware of that, Mr. Cox. I knew that he had referred to three television stations and their new assignments, but I do not recall any FM reallocation.

Mr. Cox. There was some reference, I believe, in his testimony to educational FM stations. Perhaps those were the ones for which he was making some special provision in terms of his engineer's conclusions.

Mr. MARKS. That is possible, but I do not recall any engineering on commercial FM.

Mr. Cox. This represents a third of the FM space; is that correct?

Mr. MARKS. Yes, 88 to 108 is the present band, and this would be a little less than one-third.

Mr. Cox. Are the stations pretty evenly distributed throughout the spectrum?

Mr. MARKS. Yes, and in the large markets such as in the East you cannot find an FM channel, they are all taken; so if you took away 6 megacycles, you would have a serious dislocation and some stations would have to be deleted.

Senator ERVIN. The thing that has impressed me above all else in these hearings is that every remedy illustrates the old adage that "One man's meat is another man's poison." I wish somebody would come up with a remedy that would solve all of these problems that confront this committee about this matter and not dislocate anybody.

Mr. MARKS. That would be ideal, and of course the suggestion has been made that UHF be developed. That would not take away anything from anybody. It might be a slower process, but it would be one way of answering it.

Senator ERVIN. Well, we are certainly indebted to you for the very clear exposition of your views in respect of this matter.

Mr. MARKS. Thank you, indeed, Senator.

(The statement of Mr. Marks, also his letter and Wilner's letter are as follows:)

STATEMENT OF LEONARD H. MARKS, GENERAL COUNSEL, FM BROADCASTERS

My name is Leonard H. Marks, and I am an attorney, with offices at the Cafritz Building, Washington, D. C. I appear today as general counsel of FM Broadcasters, a group which has recently been organized for the purpose of educating the public on the benefits of FM broadcasting, and of protecting the interests of those engaged in this field from encroachment by those who covet the spectrum space assigned for FM.

You recently heard testimony from Mr. Benedict Gimbel, Jr., of Station WIP, Philadelphia, Pa., in which the suggestion was made that 6 megacycles be deleted from the existing FM band in order to provide a new television channel, channel 6-A. This suggestion has been made as a solution to the serious problems which now confront those engaged in UHF broadcasting. We vigorously oppose this recommendation and submit that instead of solving the UHF problem, this suggested change would create a new FM problem.

In order that you may appreciate the serious dislocation that would result from Mr. Gimbel's suggestion, I would like to give you a brief history of FM broadcasting.

1. After a period of intensive and painstaking electronic research, the late Maj. Edwin H. Armstrong, one of America's truly great electronic inventors, developed the art of FM broadcasting. Those who were engaged in the broadcasting field recognized Major Armstrong's invention as the event which could herald a new day for radio reception. Through the medium of FM, a new and

improved service could be presented to the whole country; static-free service would be made available to the many areas which have for long suffered from atmospheric and other interference problems. Musical programs could now be presented via FM with high fidelity never possible on the standard broadcast band. In fact, for the first time, music lovers would be able to hear symphonic and other musical presentations with the same clarity of tone achieved in the music hall. That is what Major Armstrong's invention was capable of performing.

Based upon Major Armstrong's recommendation, the Commission assigned the 42-50 megacycle band for this new and improved service. Pioneer broadcasters then proceeded to invest large sums of money to build FM stations throughout the country.

2. Before the FM industry could really get started, the war intervened in 1941, and the approximately 50 stations which had been built at that time maintained a minimum schedule. It was difficult to expand FM service since military requirements prevented the manufacture of transmitters for civilian use; receiver manufacturers were unable to make FM receivers for civilian consumption. Accordingly, during the war years FM did not and could not progress.

3. At the end of the war the Commission reexamined the allocation of frequencies and determined that the FM band must be moved from the 42-50 megacycle location to the present 88-108 megacycle band. This move was made necessary in order to accommodate the needs of commercial television.

4. It is significant to note that in the allocation hearing before the FCC, Major Armstrong and other industry engineers vigorously opposed any such move and pointed out that the dislocation would seriously hamper the development of FM broadcasting. Moreover, with great prophetic vision they predicted that television could not be accommodated in the limited spectrum space that was contemplated and that the natural home of television was in the UHF band. Nevertheless, the Commission determined that the 50 existing FM stations must be moved to the new band, not to help FM, but other services in need of spectrum space.

5. As a result of this change in the allocation table, the thousands who had purchased FM receivers found that their sets were obsolete, and these FM stations had to purchase new transmitting equipment in order to comply with the Commission's requirements. This conversion process not only involved the expenditure of substantial sums of money by broadcasters, but it also required extensive retooling by the manufacturers of FM receivers. Moreover, as predicted by Major Armstrong and others, this conversion process was a difficult, as well as a costly, experience. As a result, FM was set back for years.

6. Despite these obstacles, the FM industry advanced so that today there are in existence approximately 550 commercial FM stations and an additional 125 noncommercial, educational stations. At the very minimum, there are 12 million FM receivers capable of receiving FM programs on the new band. These receivers have an original cost evaluation of approximately \$500 million. The members of this committee can call on their own experience in listening to FM programs here in Washington, D. C., but I thought that you might be interested in a survey made by Pulse, Inc., during the week of April 1 to 7, 1955, to show the extent to which FM has gained wide public acceptance. In the Washington area there are 475,000 radio homes, and the survey disclosed that 39.1 percent of those homes had FM sets. This means that there are in the Washington area 190,000 sets equipped for FM listening.

The survey showed that 62.9 percent, or approximately two-thirds of these families, used their FM set during the preceding week of the study, and that the number of hours which they listened was comparable to AM as follows:

32.5 percent	listened less than 1 hour
19.7 percent	listened for 1 hour
23 percent	listened for 2 hours
4.7 percent	listened for 3 hours
7.7 percent	listened for 4 hours
3.3 percent	listened for 5 hours
2.3 percent	listened for 6 hours
2.8 percent	listened for 7 or more hours.

The listening audience embraced primarily families with a higher income level than average, as follows:

33 percent	were in the upper quarter;
35 percent	were in the second quarter;
24 percent	were in the third quarter; and
8 percent	were in the low end of the scale.

7. The public, having been exposed to the superior qualities of FM broadcasting, has learned to appreciate the advantages which it affords and has responded by supporting these stations generously with great appreciation for the program service being presented. As a result, the FM industry presents today, for the first time, a picture of health and growth; there is a stability which had not been possible before because of the various incidents which I have related.

8. Some FM stations entered into allied fields by providing a general background music service or a store-cast service to chainstores in their area. These services are provided through a system of multiplex transmission so that the public receives a general program service consisting of news, religious programs, educational features, public service interviews, as well as entertainment. In addition, simultaneously, through the use of certain engineering devices or multiplex, it is possible to present a background music service to individual subscribers, or a store-cast service, in particular stores. These specialized services have enabled FM stations to realize sufficient additional income to permit a successful commercial operation.

Now that you have heard the background of the development of the FM industry, I want to point out to you how Mr. Gimbel's suggestion would affect it. If 6 megacycles are taken from the existing commercial FM band throughout the United States, the following will result:

1. Some FM stations would have to be deleted or changed to radically inferior frequency assignments;

2. The public would be deprived of some FM service where a station was deleted;

3. All affected FM stations would have to change frequencies and make the necessary equipment modifications;

4. Those FM stations engaged in specialized service, such as background music and store-casting, would be required to convert the receivers which were preset, or to replace them with new equipment;

5. Three existing television stations would be required to change their frequency to channel 6-A; and

6. Persons residing within the coverage of these three stations would be deprived of their existing service unless they adapted their receivers for the use of channel 6-A.

Mr. Gimbel recognized the seriousness of this problem when he stated in his testimony:

"I do not want this committee to get the impression that there are no problems which will result from the adoption of this plan. Any solution is bound to raise some problems. In fact, every plan pending before the FCC presents some difficulties. However, we believe the 6-A plan problems are minor.

"We have told you some FM stations would require relocating. This could be done with small expense. Although 1 television station in Richmond, Va., 1 in Johnstown, Pa., and 1 in Plattsburg, N. Y., will be required to shift to channel 6-A, this problem simply resolves itself to an arithmetical consideration of 3 markets as opposed to 54 markets."

To say the least, Mr. Gimbel has understated the nature of the problem. The disruption that would be caused to the public and the FM broadcasters would be major and, in some cases, catastrophic.

I am certain that this committee realizes that the addition of channel 6-A to the television band would not be a solution to all of television's ills. In fact, channel 6-A would bring with it the same problems of conversion that now exist with the UHF band. We would, in effect, be trading one type of conversion difficulty for another. We would not be solving the television problem: we would merely be creating a new FM problem.

When a comparison is made of the great benefits which the public now derives from FM broadcasting with the problematical service which could be afforded under the Gimbel plan, it becomes apparent that this suggestion leaves much to be desired.

Of course, this committee and the FCC are under great pressure to find a solution to the UHF problems. This country needs a nationwide competitive television service but it will not be sufficient via the Gimbel plan to provide for 54 markets, or any other small number, by dislocating a major part of a very substantial industry. For these reasons, I oppose the suggestions that have been made to add channel 6-A to the television band at the expense of the FM broadcasting industry.

(The following is a letter correcting Mr. Marks' testimony on one point. It was inserted in the record on July 17, 1956; see p. 935 below.)

COHN & MARKS,
Washington, D. C., June 12, 1956.

Senator WARREN G. MAGNUSON,
Senate Interstate and Foreign Commerce Committee,
United States Senate, Washington, D. C.
(Attention: Nick Zapple, clerk.)

DEAR SENATOR MAGNUSON: Since testifying before your committee on June 11, 1956, I have discovered that station WIP, Philadelphia, Pa., did submit an engineering study to the FCC in support of its plan to delete certain portions of the FM band in order that channel 6-A might be used.

I have checked this study and find that under the specific plan proposed, it would not be necessary to delete any FM stations, but that a number of channel changes would be required.

You are requested to associate this letter with the testimony which I have presented.

Very truly yours,

LEONARD H. MARKS.

(The following letter, relative to Mr. Gimbel's testimony, was inserted in the record on June 11, 1956.)

LYON, WILNER & BERGSON,
Washington, D. C., May 22, 1956.

Senator WARREN MAGNUSON,
Chairman, Interstate and Foreign Commerce Committee,
United States Senate, Washington, D. C.

DEAR SENATOR MAGNUSON: We are concerned at this time with the limited proposal submitted before your committee by the Pennsylvania Broadcasting Co. (WIP) recommending the creation of a new channel 6A. In this connection, your attention is respectfully directed to paragraph 3 of the attached comments submitted by Triangle Publications, Inc. (radio and television division) to the Federal Communications Commission in docket No. 11532, on February 8, 1956, which clearly establishes the impractical and wholly undesirable nature of the WIP proposal. As counsel for Triangle Publications, Inc., I have attached herewith a copy of these comments and respectfully request that said copy be incorporated, by reference, in the record of your present television hearing.

It is not my purpose to encumber the record, and accordingly I have not recommended that the document be inserted in the record proper. However, it is my belief that you and your staff at least should have Triangle's comments for ready reference.

Very sincerely yours,

MORTON H. WILNER.

(Returning to the proceedings on the afternoon of May 15, 1956, the following transpired:)

Senator PASTORE. Mr. Walker, how long will your statement take?

Mr. WALKER. I think about 15 minutes, sir.

I want to express my appreciation, Mr. Chairman, for being allowed to be here, today.

**STATEMENT OF HENRY B. WALKER, JR., SECRETARY AND
TREASURER OF ON THE AIR, INC., EVANSVILLE, IND.**

Mr. WALKER. My name is Henry B. Walker, Jr. I am the secretary and treasurer of On the Air, Inc., of Evansville, Ind., which operates radio stations WGBF in Evansville and WTMV in East St. Louis, Ill. On the Air, Inc., also is affiliated with a company which operates radio station WBOW in Terre Haute, Ind.

My appearance here is authorized by my board of directors for two purposes: First, to advise this committee of a decision by the Federal

Communications Commission which is discriminatory and contrary to all policies as previously stated by the Commission to this committee and to the equivalent committee of the House; and second, to advise this committee briefly of the desparate economic plight of a large segment of the radio industry resulting from the shortsighted and unrealistic policies of the Federal Communications Commission.

When the television freeze was lifted by the FCC on April 14, 1952, 1 VHF channel (channel 7) and 3 UHF channels (channels 50, 56 and 62) were allocated to Evansville. Of these, channel 56 was reserved for educational use.

The two commercial UHF channels were granted without comparative hearings, and the successful applicants, Ohio Valley Television, Inc., for channel 50 (now WEHT-TV) and Premier Television, Inc., for channel 62 (now WFIE-TV), went on the air in September and November of 1953, respectively. Each of these companies is owned by the owners of a chain of movie theaters. These two companies which applied for UHF channels after the allocation of a VHF channel to Evansville and which received their grants without a contest have been among the leaders in the fight of the UHF stations for deintermixture.

Four applicants considered the VHF channel sufficiently superior to UHF to risk a fight for it: On the Air, Inc., which is sometimes referred to herein by its corporate name and sometimes by its call letters, WGBF; WFBM, Inc. (WEOA); South Central Broadcasting Corp. (WIKY); and Evansville Television, Inc., a new company formed for this purpose. To determine which of these applicants should receive the grant, the FCC set the applications for comparative hearing. The hearing began in May 1953, and continued intermittently until March 1954. During the course of the hearing, WIKY withdrew its application.

In October 1954, the FCC examiner released his initial decision favoring Evansville Television, Inc., on the basis that an applicant without any radio broadcasting interests should be favored over one which does have such interests. In his initial decision, the hearing examiner used this language:

*** were it not for the fact of ownership of other media we might very reasonably have preferred WGBF and it is perhaps unfortunate that the very facilities whose long and successful operation naturally lays claim to our approval should furnish the basis for our ultimate determination against WGBF.

An excerpt from the conclusions of this initial decision is attached hereto and designated "schedule A," appendix, page 1.

WGBF, WEOA and the Broadcast Bureau of the FCC filed exceptions to the initial decision, and briefs in support thereof, and asked for oral argument before the full Commission. As you know, the Broadcast Bureau is that part of the FCC charged with the responsibility of representing the interests of the general public by attempting to insure that the actions of the Commission are in conformity with the spirit as well as the letter of the Communications Act. The Broadcast Bureau referred in its exceptions and at oral argument to "the fine past record of performance" of WGBF and recommended that the grant be given to WGBF rather than Evansville Television, Inc. An excerpt from the brief and exceptions filed by the Chief of the Broadcast Bureau of the FCC in this case is attached hereto and designated "schedule B", appendix, page 3.

In an article entitled "Diversification: Its Case History" by Earl B. Abrams in *Broadcasting-Telecasting*, November 1, 1954, the examiner's decision in the Evansville case is characterized as "the reductio ad absurdum of the Commission's diversification policy."

Subsequent to the oral argument, the owners of WEOA sold their station and withdrew their application for channel 7. That left WGBF and Evansville Television as the only remaining contestants.

In February 1955, WFIE-TV and WEHT-TV, the two UHF stations allocated to Evansville, petitioned the FCC to institute rulemaking proceedings changing the channel allocations for Evansville by reserving channel 7 for noncommercial educational use and releasing channel 56 for commercial use. WGBF and Evansville Television filed oppositions and asked for oral argument, which was held in June 1955.

On December 27, 1955, the FCC denied the petitions of the UHF stations and granted channel 7 to Evansville Television, Inc. The final decision in favor of Evansville Television, Inc., differed somewhat from the examiner's initial decision. In addition to the factor of diversification of control of media of mass communication, the final decision also gave weight to what it declared to be the greater integration of ownership with management on the part of Evansville Television than it found in the WGBF case, and it discounted the past broadcast record of WGBF which the examiner and the FCC Broadcast Bureau had praised. The decision found that WGBF's proposed television programming plans were superior to those of Evansville Television, but that this factor was outweighed by the factors of integration of ownership with management and the diversification of control of media of mass communication.

On January 26, 1956, WGBF filed a petition with the FCC asking for reconsideration of its decision. Although no public announcement has as yet been made of any action on our petition, we have been advised that the Commission has voted to deny the petition for rehearing.

After such a decision, it might be expected that the District of Columbia Court of Appeals could be expected to reverse the FCC if the case was wrongly decided. But the record of appeals to that court shows that it has virtually given the Commission carte blanche in its power to choose between applicants, and the opinion of the legal fraternity here is almost unanimous that such appeals are virtually hopeless.

I wish that I might have the time to discuss in detail the merits of this decision. I realize that it would be an imposition to attempt to do so. However, I will presume to make one broad statement and I am willing to let the record substantiate it in any and every particular. Without using the principle of diversification of ownership of media of mass communication as a point against WGBF, the Commission could not possibly have rendered its decision against WGBF. Any point based solely on the merits of the case could not have been sustained, in my opinion, even in the court of appeals. Most of you are probably somewhat familiar with the various criteria which are used in evaluating applicants for broadcast or television facilities. These include such factors as local programming, past broadcast experience, local residence, civic participation, diversification of business interests as well as integration of ownership with management and diversification of control of media of mass communication.

The Commission conceded the superiority of WGBF as to the factor of local programing.

The Commission attempted to discount the fine past record of performance of WGBF which had been praised by the examiner and the Broadcast Bureau.

The Commission gave a preference to WGBF as to the factor of local residence because it had no alternative. It then unjustly attempted to discount the value of this preference by implying it was of little weight, although all of the officers and directors of On the Air are lifelong or longtime residents of Evansville and own more than 75 percent of the stock of the parent company; while only one officer or director or voting stockholder with 13.5 percent of the voting stock of Evansville Television has ever lived in Evansville.

As to the factors of civic participation and diversification of business interests, the Commission concluded that the applicants are equal. These conclusions and the findings on which they were based are flagrant examples of distortion and bias by the omission of relevant facts and the overemphasis of trivial ones. Rex Schepp and his wife, who own 55 percent of all the stock of Evansville Television, have no other business interests of any kind, and the Commission found only one civic activity in which either of them had participated during their entire lives. The next largest stockholder, having 13.5 percent of the voting stock and 16.1 percent of the nonvoting stock, is Dr. B. F. Schepp, a brother of Rex Schepp, who has no other business interest except the practice of optometry. The Commission devoted a great deal of space to describe his five civic activities which included his church, the Elks, the chamber of commerce, the Evansville Council of Clubs, and the National Society for the Prevention of Blindness. No more than one outside business interest was found for a single other voting stockholder and not even one single civic activity was listed for any of them. The Commission described in detail the business interests and civic activities of 6 stockholders owning nothing but nonvoting stock who were neither officers nor directors of the corporation nor were to be paid members of its staff, and 4 of whom owned only \$1,000 of nonvoting stock apiece. As a matter of fact, the 6 together own only 5.2 percent of Evansville Television's total stock subscription. The entire case for Evansville Television on these points was based on these 5.2 percent nonvoting stockholders.

In applying these two factors to the officers and directors of On the Air, the Commission had some difficulty in minimizing facts which were overwhelmingly in On the Air's favor. Alvin Q. Bades, president and director, was shown to have 7 other business interests and 7 civic activities. Martin L. Leich, executive vice president and director, was shown to have other business interests in radio broadcasting, to have had 4 years of active duty with the United States Navy, and to have participated in 17 civic organizations. Even so, there were omitted several items including active participation in Red Cross drives, being awarded the Bronze Star and receiving the Junior Chamber of Commerce Award for outstanding young man of the year.

In their findings in regard to Henry B. Walker—my father—vice president and director, his military record was dismissed with this comment:

* * * (he) has been a lifelong resident of this city except for his periods of active duty with the United States Army in World Wars I and II.

No mention was made of his having attained the rank of full colonel or of his having served as executive officer of Subsistence Division of Quartermaster General. His other business interests were dismissed without enumeration with the comment:

He holds extensive and varied business interests in Evansville and in other cities.

While these interests did not seem to impress the FCC, they have been partially responsible for his having been listed in Who's Who for a number of years.

The Commission revealed Mr. Walker's participation in 23 civic organizations but failed to mention his having been an officer or director in a number of others included in the record. The phrase "In addition to professional and social organizations * * *" successfully hid the fact of presidencies of the Evansville Bar Association, the Indiana State Bar Association, and the Federation of Insurance Counsel, a national organization, although mere past memberships in two of these organizations were enumerated for a nonvoting stockholder of Evansville Television.

Senator PASTORE. May I interrupt you at this point?

Mr. WALKER. Yes, sir.

Senator PASTORE. Was an appeal taken in this case?

Mr. WALKER. No, sir.

Senator PASTORE. Why not?

Mr. WALKER. Because the rejection or denying of our petition for a rehearing has not been publicly announced. We have been told that the vote was taken 3 weeks ago, which was to deny it.

Senator PASTORE. Is this case still pending?

Mr. WALKER. It is technically pending; yes.

Mr. Cox. As you indicated awhile ago, however, I think you stated that your counsel advised—

Mr. WALKER. The opinion in Washington is practically unanimous that an appeal from the FCC is hopeless.

Mr. Cox. Is that largely because of—

Senator PASTORE. Now, wait a minute. Let's get this cleared up. What do you mean it is hopeless—that our courts are a hopeless institution?

Mr. WALKER. No. The apparent power that has been given to the FCC to choose between applicants will not be upset by a court of appeals in most cases. There has to be almost a case of fraud.

Senator PASTORE. Do you expect the Congress to overrule the FCC?

Mr. WALKER. No, sir.

Senator PASTORE. Then why do you bring it here?

Mr. WALKER. I am going to go into the question of diversification of control of media of mass communication.

Senator PASTORE. I am not being critical of you, I am trying to get at your point here. You have 15 or 16 pages that I have to listen to, and I would like to get at the point.

Mr. WALKER. Over half of it, sir, is appendix.

Senator PASTORE. Apart from that, what is actually the point you are trying to develop before this committee?

Mr. WALKER. Our case is the only case in which an applicant for a TV station has been denied because of ownership of radio stations.

The Commission has appeared before this committee and has appeared before the House Committee on Interstate and Foreign Commerce and has stated that there would be no discrimination. They have stated, as I will develop later, that a radio station would be favored, and yet they have stated—or the examiner stated—that the very fact that we had operated a radio station and had done a good job and had been a service was the reason we were being denied.

Senator PASTORE. Is there anything more than that that you desire to present? Do you have any evidence that the Commission went beyond its realm in ruling against you because of ownership of a radio station?

Mr. WALKER. I have no evidence, no.

Senator PASTORE. Is there a representative of the FCC in this room? (No response.)

Well, I think the attorney of this committee ought to call this brief to the attention of the Commission, and we ought to have at least an answer to the subject matter that is being preferred here—let them make an answer.

You take the position that the only ground upon which your application was denied is because you were already in the radio business?

Mr. WALKER. Yes, sir.

Senator PASTORE. And they took other people in preference to you, as newcomers, who hadn't been in this field at all?

Mr. WALKER. It isn't even true in that respect. Rex Schepp—

Senator PASTORE. I would like to have you refine it, please, as much as you can.

Mr. WALKER. I would be glad to, sir. There were so many things that I could not condense it into a short statement.

Rex Schepp, who was to be 55 percent owner of all the stock of this corporation, has promoted and sold interests in 3 radio and television stations—1 television station in Phoenix, Ariz., 1 in Paterson, N. J., and a radio station in Phoenix, Ariz.

Senator PASTORE. Let me get this straight. This man actually applied for licenses other places, which were granted, and then he sold the facilities?

Mr. WALKER. Yes, sir; he has been a 25-percent or greater stockholder in 3; he was never a 100-percent stockholder.

Senator PASTORE. Then he came to your town where you were operating?

Mr. WALKER. Yes, sir.

Senator PASTORE. Was he a resident of that town?

Mr. WALKER. He was not a resident of that town. His brother had lived there and been an optometrist for about 10 years when he started this.

Senator PASTORE. And, without any previous business experience in this community, he formed a corporation and applied for this license?

Mr. WALKER. Yes, sir.

Senator PASTORE. And they told you that you had done a good job in rendering radio service, but because you were in the radio business they preferred this other newcomer to you in running a television station?

Mr. WALKER. Yes, sir.

Senator PASTORE. I think this brief ought to be referred to them, and we ought to get an answer on it.

Mr. Cox. Isn't it true that the only previous instances in which the FCC has applied its diversification standards have been to hold against newspapers who sought to acquire television licenses in areas where they controlled a dominating position in the dissemination of news?

Mr. WALKER. In newspapers, or a combination of newspapers and radio, or a combination of newspapers, radio, and TV.

Mr. Cox. But never radio alone?

Mr. WALKER. No case where it was radio alone.

Mr. Cox. And your company has no interest in other means of mass communication aside from WGBF, WTMV, and this association with WBOW?

Mr. WALKER. None whatsoever. WTMV is a local 250-watt station in East St. Louis. WBOW is a local station in Terre Haute, and, with the tremendous crowding that the radio spectrum has had in the last 10 years, they don't even get good reception on the outskirts of their own town.

Mr. Cox. How many radio stations are there in Evansville?

Mr. WALKER. Four in Evansville, 1 in Henderson, which is in the metropolitan area; 2 UHF stations in Evansville, and this VHF was to be a third. There is another VHF, channel 9, which is 18 miles from Evansville, and was brought in after the hearing started on channel 7. The only applicants for it are out-of-State owners in Kentucky. It is being applied for by two Owensboro, Ky., applicants with no Evansville person. It is closer to Evansville—or as close to Evansville as it is to Owensboro.

Mr. Cox. How many newspapers are there in Evansville?

Mr. WALKER. Two daily newspapers, and one daily newspaper in Henderson.

Mr. Cox. Do any people connected with your company have any interest in those newspapers?

Mr. WALKER. None whatsoever, nor with the motion pictures.

Senator PASTORE. I would appreciate it if you would allow us to put this entire document in the record, as you have presented it, including your appendix, and if you would more or less summarize, because what you are actually doing here, as I understand it, is stating a specific case.

Mr. WALKER. Yes, sir. There is no other case I know as well.

Senator PASTORE. I realize that, but I was wondering if you were going to persist in the desire of reading the entire background and history of the case. I think we understand it pretty much, and it ought to be in the record.

Mr. WALKER. I would appreciate it, for one reason, that I think a few things I am going to bring up might very well elicit some questions.

Senator PASTORE. Can't you point that out to me and put it in the record, because I have another meeting to attend, which is the reason I am asking. I am the only member of the committee here listening to you, and your interest, of course, is to bring it to the attention of the entire committee, and inserting it in the record will do precisely that. Then you can point out the salient points to me, and we can discuss it to and fro, without reading about 10 more pages of a written statement.

If there were more people here I would say it would be perfectly all right, and yet I am not shutting you off if you desire to do it that way; but I think, myself, it would serve our purpose better if we would insert the remainder of the statement in the record, and have it included in the record in its entirety, and then you can pick out the important points that you would like to bring out to me, consonant with the interrogation that has already transpired, because that is the crux of the matter; isn't it?

Mr. WALKER. Yes. The only reason I attempted to go into any questions on the merits was because I felt that I must go into it enough to convince you that the diversification of ownership of media of mass communication was the point on which they made the decision.

Senator PASTORE. I am not saying you are right, and I am not saying you are wrong—I am not getting into that—but you have made a rather important presentation here, and I think it deserves at least some answer on the part of the Commission to us.

Mr. WALKER. All right, sir.

Senator PASTORE. Apparently the presentation you are making here is that the man who is granted the license is more or less a professional applicant who goes around different parts of the country and then sells his interests outright.

Mr. WALKER. He has a record as a promoter.

Senator PASTORE. And this is the third time, and they granted him the license the fourth time in preference to a local operator who had already established a reputation, on the grounds that he was already in the radio business and for that reason they ought to give it to a stranger. Isn't that in essence what you are saying?

Mr. WALKER. That is it, sir.

Senator PASTORE. And that is your criticism of the Commission?

Mr. WALKER. Yes.

Senator PASTORE. I think the Commission ought to explain its position. We will have it understood on the part of the stenographer that the statement will go in the record in its entirety, including the appendix.

(The balance of Mr. Walker's statement is as follows:)

Mr. WALKER. In my own case as secretary and treasurer, the facts were also slanted. It was not found that I served as assistant military attaché to China during World War II although I modestly feel it might have some significance in regard to my own qualifications. No other business interests except radio and law were mentioned by the Commission although the record shows that I was an officer in at least 8 corporations in 5 lines of business not connected with radio and a director in another. In fact, my business activities have been sufficiently extensive that I have been listed in Who's Who in Commerce and Industry for a number of years.

The Commission found my participation in nine civic organizations but failed to mention participation in Red Cross and Community Chest drives, a directorship in Rotary, the presidency for 2 years of the Evansville Philharmonic Orchestra, the secretaryship of the Evansville Bar Association or my membership on the executive committee of the American Counsel Association. It is hardly necessary to go on and enumerate the activities of the remaining director who has died since the hearing.

WGBF introduced evidence of the business interests and civic activities of its voting stockholders and showed them engaged in 17 or more broad fields of business and participating in 46 different local civic organizations. The Commission chose to ignore these facts but to include the activities of all owners of nonvoting stock of Evansville Television. On the Air was so vastly superior to Evansville Television in regard to the factors of civic participation and diversification of business interests that any conclusion by the Commission that they were equal is not merely arbitrary and capricious but completely unconscionable.

As to the factor of integration of ownership with management a preference was given to Evansville Television because Rex Schepp, the controlling stockholder, a nonresident with no civic activities or other business interests, is to be the general manager of the company. There was every reason for the Commission to hold that On the Air, with its officers and directors owning more than 75 percent of the stock and with a long and fine record of performance, had definite superiority with respect to the integration of ownership with management.

I have gone into these other factors in some detail in order to substantiate my previous statement that without relying on the principle of diversification of ownership of media of mass communication as a point against WGBF, the Commission could not possibly have rendered its decision against WGBF.

This principle of diversification of ownership is not a requirement of law and can be supported only on the theory of preventing monopoly or as a form of share-the-wealth program.

A VHF station in Evansville could be expected to cover an area having approximately a 50-mile radius. Within that area today there are 19 AM radio and television stations and 19 daily newspapers. In the Evansville metropolitan area alone—Evansville and Henderson, Ky.—there are 5 AM radio stations, 2 television stations, 3 daily newspapers, and numerous other media of mass communication from without which saturate the area. Monopoly, therefore, is not an issue.

On the Air has operated WGBF in Evansville since 1928. At that time it was the only station within a 50-mile radius of Evansville. In 1935 this company established WEOA in Evansville which was also the second station within this area. On the Air continued to operate it until 1946 when it was required to sell the station under the FCC's so-called duopoly rules. Attached hereto and designated "schedule C," appendix, page 5, is a list of the AM radio and television stations within a 50-mile radius of Evansville as existing at 5-year intervals from 1930 to 1955. In 1930 and 1935, On the Air owned the only station in the area. In 1940, On the Air owned 2 out of the 4 in the area. In 1945 it owned 2 out of the 5 in the area. In 1950 it owned 1 out of 15, and in 1955, 1 out of 19 in the area. At one time On the Air had absolute control of broadcast media in this area. This control has dwindled to a point where it is ridiculous to apply the diversification rule as a reason to deprive On the Air of a television grant.

The Evansville case is the first decision in history in which the Commission has applied the diversification of ownership principle in denying an applicant a grant for a television station when the applicant owned radio stations only. The principle had formerly been applied at times when there were applicants with newspaper interests or newspaper and radio interests or a combination of newspaper, radio, and television interests. The use of this principle against *On the Air* is in absolute conflict with all announced policies of the Commission. The policy in this regard has been stated to this committee in the past as well as to the equivalent House committee.

Attached hereto and designated "Schedule D," appendix, page 7, is an excerpt from an article entitled "Diversification of Control of the Media of Mass Communication—Policy or Fallacy?" by Jerome H. Heckman, *Georgetown Law Journal*, volume 42, page 378, March 1954. This article reviews the legislative history of the McFarland Act and other legislation introduced in both the Senate and the House which would have specifically prevented discrimination by the FCC against any applicant for a license because of ownership of newspapers, radio stations, or other media of mass communication. Chairman Hyde of the FCC testified that the Commission had no objection and that there should be no discrimination. The antidiscrimination section was eliminated because this committee reported that the Commission was following a policy of no discrimination, intended to continue to follow such a policy, and has no legal or constitutional authority to follow any other procedure. The use of the diversification principle in the Evansville case is an absolute refutation of this announced policy.

Attached thereto and designated "Schedule E," appendix, page 11, are excerpts from the testimony of Chairman Paul Walker before the House Committee on Interstate and Foreign Commerce on February 20, 1953. Chairman Walker answered questions prefaced by this statement of Congressman Springer, "I think it is awfully important that your whole question of public policy be rather clear to people who are petitioning for stations." The Chairman's answers reveal a Commission attitude and policy identical with our own. Among other things, he said:

* * * and it would be a pretty severe rule to say a man who has rendered a fine service in broadcasting that he was prohibited from going into television, particularly if television in a measure supplants the radio industry in the broadcast field.

When asked what the policy would be between an applicant with a radio station and one without, he implied that the broadcaster would be given preference in this language:

I would say if you had a much better applicant who was not in radio that he would get the station.

Later he said:

My fundamental philosophy is that the more competition you can get, provided the operators can exist and make a reasonable profit, the better. Again I say—and this is more a matter of innate justice to the man who has gone in

and developed a service to the community—to shut out a radio operator from getting into television simply because he has a radio station does not seem to me quite just.

The decision in the Evansville case is totally contrary to the policy thus declared. What short memories the Commissioners seem to have.

In its decision the Commission pointed out that On the Air owns or is affiliated with three radio stations. Certainly the fact has no bearing on any question of monopoly since the East St. Louis station and the affiliated Terre Haute station are local 250-watt stations whose listening areas are separated by many miles from the listening area of WGBF. Here again the diversification policy is insupportable. It overlooks the fact that television is a development and a refinement of the broadcasting industry and not a brandnew field.

As Chairman Walker pointed out, "television in a measure supplants the radio interest in the broadcast field." WGBF has been on the air since 1923, 2 years after KDKA, the first station in the country. On the Air has owned and operated it for 27 years and has a record of excellent service. To deny it the right to expand and grow with the industry is unfair and is economically disastrous. Because of the growth of TV, radio is a declining industry. From 1946 through 1954, net earnings, before taxes, for the whole radio industry declined steadily from \$76.5 million to \$41.8 million. During the same period the number of stations increased from 1,025 to 2,598, so that the average earnings per station declined from \$74,634 to \$16,089 or a decline of 78½ percent. Attached hereto and designated "schedule F," appendix, page 14, is a table showing this decline in radio earnings and the attendant rise in television earnings. In the same period On the Air's Evansville income—AM and FM—declined from \$98,224 to a loss of \$20,012. The 4 AM and 2 FM radio stations in Evansville declined from earnings of \$142,700 in 1951 to a loss of \$82,900 in 1954. These figures are set out in a table attached hereto and designated "schedule G," appendix, page 15. All of these figures are from figures filed with or published by the FCC.

I mentioned earlier the possibility that the diversification policy might be based on a "share the wealth" idea. The figures I have given should quickly dispel the possibility that a radio-station owner has any wealth to share. To illustrate even more graphically the situation with our three affiliated stations, there is attached hereto and designated "schedule H," appendix, page 16, a table showing comparative earnings for the first 2 months of 1956 and the same period of 1953. Our companies are faced with continuing losses which can only be mitigated by decreasing the services offered. Whether this will prevent eventual failure only time will tell.

The problem is not ours alone. According to the 1954 figures, 30 percent of the stations which had been operating prior to World War II were operating at a loss. There is no free enterprise in an industry which is subject to the controls of the FCC. The policies which have contributed to this critical situation should be reviewed from a realistic standpoint. The broadcast industry should not be led to the

brink of ruin by some ivory-towered economists who say, as the Commissioners do, that they are not concerned with the economics of their licensees.

We have felt that we must have television to exist. We are faced with a choice of appealing the Commission's decision, with the resultant expenditure of additional large amounts of time and money and with only the slightest possible chance of success, or of attempting to buy an existing facility. In attempting to determine our future course of action we have talked to a staff member of the FCC. We are advised that the present plans of the FCC involve deintermixing Evansville and removing channel 7 to Louisville, which would make our 3-year fight a completely futile effort and the question of who wins a moot one; this after an expenditure for this channel which we estimate at over \$300,000. At the same time VHF channel 9, which was allocated to Hatfield, Ind., a distance of 18 miles from Evansville, long after the channel 7 hearing began, would be left and would be owned by 1 of the 2 Owensboro, Ky., applicants fighting for it.

If a UHF channel is then allocated to Evansville to replace channel 7 it would leave Evansville dominated by a VHF station, channel 9, operated by an out-of-State owner, leaving three UHF stations in an already overcrowded broadcast market. Add to that the fact that the two existing UHF stations will have the advantage of more than 3 years of operation and have major chain affiliations at present, then one can see what a hopeless and confused and dismal picture is in prospect.

If the Federal Communications Commission is not concerned with the inequities and injustices of its actions and policies, it is time that someone becomes concerned before the broadcast industry suffers even more. If my appearance here results in bringing any benefits to the industry as a whole, we shall feel well repaid in having been of service to the industry. If by any chance it results in bringing any benefits to us, we shall be delighted.

SCHEDULE A

EXCERPT FROM CONCLUSIONS OF INITIAL DECISION BY EXAMINER SHARFMAN IN
EVANSVILLE CHANNEL 7 TELEVISION CASE

(Docket No. 10462, 10463, 10464)

Between WGBF and Evansville Television, Inc., we must also evaluate the competitive significance of concentration of control of mass communication media, since WGBF, though it has no television stations, is substantially identified with aural broadcast facilities in the Indiana-Illinois area. While in a television case ownership of other communication media may not be as disadvantageous to an applicant in the comparative process as ownership of television facilities, it must be given its appropriate weight. Here WGBF owns 1 of the 2 most powerful AM stations in Evansville, an FM station there, and the only station (AM) in East St. Louis, Ill.; and its parent corporation owns all the stock of the licensee of an AM and an FM station in Terre Haute, Ind. Speaking of Evansville alone, a grant to WGBF would give it control over facilities in 3 commercial broadcasting media in 1 community, AM, FM, and TV. It would not have a monopoly of radio facilities in any of these fields, nor has it any newspaper interests, and the area is well supplied with both radio and newspaper

services from other sources. Evansville Television, Inc., on the other hand, has no connection with any communication service other than in its pending application. As with WEOA, we must determine the significance of WGBF's involvement with communication interests, here vis-a-vis Evansville Television, Inc.

It is not farfetched to say that Evansville Television, Inc., as already indicated, has deliberately fashioned its presentation so as to take advantage of the con-
 ceen eye upon the Commission, surrounded himself with a group of local "con-
 ventional criteria. We have no doubt that Mr. Schepp, an entrepreneur with a
 selors," for competitive purposes; and although we do not consider that they
 would have been nonowners because they had subscribed only to nonvoting stock,
 the fact that their participation in ownership was limited in this way throws some
 light upon Mr. Schepp's intentions. Evansville Television, Inc., program mis-
 classification is another indication of its competitive spirit, and although it is not
 by any means a major element in this comparison complex, it should be given
 some consideration.

Granted these unfavorable aspects of Evansville Television, Inc.'s proposal, it
 is by no means bested in a comparison with WGBF. The black marks placed
 against it do not affect the basic virtues of its projected operation. There is not
 so great a difference between its case and WGBF's as to neutralize the importance
 of the factor of media diversification. In short, here again we must conclude that
 the applicant not identified with other communication facilities should be pre-
 ferred. We do not come to this determination without some misgivings because
 of the somewhat pedestrian nature of Evansville Television, Inc.'s presentation,
 a matter which has only been hinted at previously and which we see no need to elab-
 orate upon further now. We hesitate to penalize Evansville Television, Inc., after
 it manifested enough concern to bring to the hearing most of its principals, and
 afforded us an opportunity to observe and appraise in the flesh the possibilities
 of its successful operation. Yet we must confess that were it not for the fact of
 ownership of other media we might very reasonably have preferred WGBF, and
 it is perhaps unfortunate that the very facilities whose long and successful oper-
 ation naturally lays claim to our approval should furnish the basis for our ulti-
 mate determination against WGBF.

SCHEDULE B

EXCERPT FROM BRIEF AND EXCEPTION FILED BY CHIEF OF BROADCAST BUREAU OF
 FCC IN EVANSVILLE CHANNEL 7 TELEVISION CASE (DOCKET No. 10462, 10463,
 10464)

The initial decision in the instant proceeding deprecates the mechanical appli-
 cation of the time-honored criteria utilized by the Commission in its quest for the
 applicant which is to be preferred in a comparative processing upon mutually
 exclusive broadcast applications. (See par. 6, conclusions, initial decision.) We
 are of the view, however, that after expounding this well-established truism the
 initial decision in this case itself falls into the very pit which it sought so studiously
 to avoid. Its failure to give proper weight to "countervailing considerations"
 in respect to its appraisal of the applicants here involved in the light of the Com-
 mission's recent pronouncements concerning the policies on concentration of
 media ownership and the diversification of control of mass communications media,
 led, in our view, to a mechanistic and incorrect result. Two of the three appli-
 cants, On the Air, Inc. (referred to herein as "WGBF") and WFBM, Inc. (re-
 ferred to as "WFBM") are existing licensees with equally good performance
 records in the public interest insofar as the record of this case is concerned. The
 applicant which the initial decision prefers, Evansville Television, Inc. (herein
 referred to as "ETV") is a newcomer to broadcasting. Because neither ETV
 itself nor any of its principals own media interests at present the examiner ap-
 plied the test of diversification of control of communications media, giving no
 weight to the differences, which we believe are significant, between the three ap-
 plicants relating to local residence and community activities of their respective
 stockholders and directorates in the Evansville community. Similarly he did
 not consider the tried records of performance of the existing licensees of sufficient
 importance to influence the end result. We believe that these two factors, con-
 sidered together, suffice to militate against a grant to ETV and in favor of a
 grant to WGBF and that the failure to give proper weight to such factors was
 error. Our rationale is set forth in detail below.

SCHEDULE C

List of AM radio and television stations within 50-mile radius of Evansville

	Approximate distance from Evansville— miles
1930—WGBF, Evansville	
1935—WGBF, Evansville	
1940—WGBF, Evansville	
WEOA, Evansville (owned by WGBT)	
WOMI, Owensboro, Ky	28
WAOV, Vincennes, Ind	47
1945—WGBF, Evansville	
WEOA, Evansville (owned by WGBF)	
WOMI, Owensboro, Ky	28
WAOV, Vincennes, Ind	47
WSON, Henderson, Ky	8
1950—WGBF, Evansville	
WEOA, Evansville (no longer owned by WGBF)	
WIKY, Evansville	
WJPS, Evansville	
WOMI, Owensboro, Ky	28
WAOV, Vincennes, Ind	47
WSON, Henderson, Ky	8
WRAY, Princeton, Ind	23
WITZ, Jasper, Ind	44
WTCJ, Tell City, Ind	45
WBNL, Boonville, Ind	18
WROY, Carmi, Ill	32
WVMC, Mount Carmel, Ill	30
WFMW, Madisonville, Ky	50
WVJS, Owensboro, Ky	28
1955—WGBF, Evansville	
WEOA, Evansville (owned by WEHT-TV)	
WIKY, Evansville	
WJPS, Evansville	
WEHT-TV, Evansville, Ind.-Henderson, Ky.	
WFIE-TV, Evansville	
WOMI, Owensboro, Ky	28
WAOV, Vincennes, Ind	47
WSON, Henderson, Ky	8
WRAY, Princeton, Ind	23
WITZ, Jasper, Ind	44
WTCJ, Tell City, Ind	45
WBNL, Boonville, Ind	18
WROY, Carmi, Ill	32
WVMC, Mount Carmel, Ill	30
WFMW, Madisonville, Ky	50
WVJS, Owensboro, Ky	28
WPCO, Mount Vernon, Ind	15
WAMW, Washington, Ind	48

SCHEDULE D

(Excerpts from Diversification of Control of the Media of Mass Communication—Policy or Fallacy? by Jerome H. Heckman, Georgetown Law Journal, vol. 42, p. 378, March 1954.)

THE LEGISLATIVE HISTORY OF THE MCFARLAND ACT AND THE PROBLEM OF
DIVERSIFICATION OF THE MEDIA OF MASS COMMUNICATION

Unlike the case law which leaves some doubt as to how the newspaper problem affects decisions on license matters, the legislative history of the communications amendments of 1952 gives a very lucid picture of congressional feeling on the subject.¹ The McFarland bill, the basis of these amendments, was, in most of its

¹ Communications Act amendment of 1952, 66 Stat. 711 (1952), 47 U. S. C. §§ 307 et seq. (supp. 1953).

important aspects, the same as a predecessor bill introduced into the 81st Congress and reported out of the Senate Committee on Interstate and Foreign Commerce.² This bill, S. 1973, read in s14:³

"Section 332. * * * The Commission shall make or promulgate no rule or regulation of substance or procedure, the purpose or result of which is to effect a discrimination between persons based upon race, religious or political affiliation, or kind of lawful occupation or business association." In the hearings on this bill, acting Chairman Hyde made this statement as to the Commission's position on the proposed new section:⁴

"This section proposes to add section 332. It is the so-called antidiscrimination section, the effect of which would be to prohibit the adoption of any rule which would prevent any person from securing a license because of race, religious or political affiliation, or business affiliation. The principal intent of the section is, of course, to outlaw the possibility of any rule excluding newspaper owners from owning radio stations. *There is no objection to this section.*" [Emphasis supplied.]

On further questioning as to s14 of S. 1973, Mr. Hyde stated:⁵

"I would like to say our comment on this section is 'No objection.' We mean by that that we feel there should be no discriminations, of course. Now, whether or not you wish to enact that kind of legislation is, of course, a matter for your consideration. I am just giving my own personal views, but I see no necessity for it because I think in principle *there should be none of these discriminations*, and I am not going to object to the legislation." [Emphasis supplied.]

Because of the strong denial of discrimination made by the Commission, section 14 was dropped from S. 1973 and this explanation was given in the committee report:⁶

The committee deems it important to point out why this section was dropped from the bill. This language was first proposed nearly 6 years ago during hearings on a Communications Act amendment bill, solely because the Federal Communications Commission at that time had under consideration a rule which would prohibit newspapers from becoming holders of radio licenses. While the Commission may have been motivated, in part at least, by the best intentions in seeking to prevent monopolistic control of organs of public expression in a community, the threatened action was of questionable constitutional validity, particularly in the absence of specific authority in the basic act to adopt such a rule. * * *

"*It should be distinctly understood that in eliminating this section the committee has done so solely because the Commission is now following the procedure which was outlined in the section, has testified that it intends to follow that procedure, and that it is of the opinion that it has no legal or constitutional authority to follow any other procedure.*" [Emphasis supplied.]

When S. 1973 was reintroduced as S. 658 in the 82d Congress, the House version added to the bill the so-called newspaper amendment which read:⁷

"The Commission shall not make or promulgate any rule or regulation of substance or procedure, the purpose or result of which is to affect a discrimination between persons based upon interest in, association with, or ownership or any medium primarily engaged in the gathering and dissemination of information and that no application for a construction permit or station license, or for the renewal, modification, or transfer of such a permit or license, shall be denied by the Commission solely because of any such interest, association, or ownership."

This provision was accorded a lengthy airing on the floor of the House. Said Mr. Harris of the House Committee on Interstate and Foreign Commerce in reporting on the newspaper amendment:⁸

² S. 658, 82d Cong., 2d sess. (1952).

³ S. 1973, 81st Cong., 1st sess. (1949), p. 14.

⁴ Hearings before subcommittee of Committee on Foreign and Interstate Commerce on S. 1973, 81st Cong., 1st sess. (1949), pp. 20-21.

⁵ See, e. g., Town Talk Broadcasting Co., 3 Pike & Fischer, R. R. 769 (1947); Capital Broadcasting Co., 3 Pike & Fischer, R. R. 702 (1947); Hanford Publishing Co., 3 Pike & Fischer, R. R. 1281 (1947); Midland Broadcasting Co., 3 Pike & Fischer, R. R. 1961 (1948); Hampden-Hampshire Corp. (WHYN), 4 Pike & Fischer, R. R. 504 (1949); Belleville News Democrat, 4 Pike & Fischer, R. R. 1043 (1950); Hearst Radio, Inc., 6 Pike & Fischer, R. R. 994 (1951).

⁶ S. Rept. No. 751, 81st Cong., 1st sess. 2 (1950).

⁷ Conference report on Communications Act amendments, H. Rept. No. 2426, 82d Cong., 2d sess. 18 (1952).

⁸ 98 Congressional Record 7524 (June 17, 1952).

"It was the sole purpose of the amendment inserted by the House committee to make sure that newspaper applicants *will be treated on a par* with other applicants for radio and television licenses and that the Commission does not follow any arbitrary policy which discriminates against those who are engaged in the gathering and dissemination of information." [Emphasis supplied.]

Representative Priest of the same committee further emphasized the legislative intent in stating:⁹

"Not only shall the Commission determine it (the granting of licenses, etc.) solely on the basis of public interest, but, on the other hand, no applicant shall have two strikes against him solely because of his interest in a news-gathering organization, corporation, or partnership, or whatever it might be."

And perhaps the best picture of the congressional state of mind can be obtained from a statement by Representative Rogers of Florida during the same House debate. Said Representative Rogers:¹⁰

"Mr. Chairman, we discussed this problem in detail in the Interstate and Foreign Commerce Committee. As stated by the gentleman from Tennessee (Mr. Priest) he offered the amendment and after long discussion of it I do not believe there was any opposition at all when it came to a final vote on the amendment. All of us concurred in the viewpoint that there should be *no discrimination against newspapers*. That is all it means. It is simple. It says that the Commission shall issue no rules or regulations that will discriminate in any way against newspapers, newspaper owners, or those associated with the newspaper business. That is all that is provided. It is in the negative; it states they shall not refuse to issue a license solely because of the fact that one may have an interest in a newspaper. I think that is a fair provision. If a man owns a newspaper and shows that it is in the public convenience and necessity for him to operate a station in his vicinity I do not think that the Commission should hold that against him. I do not think they should say to him: 'You have a newspaper down here so we will not give you a license to operate a radio station.'" [Emphasis added.]

These were clear expressions of congressional attitude. The Commission convinced Congress that this attitude corresponded to the position the Commission intended to maintain. For this reason the conference committee on the McFarland bill decided to drop the newspaper amendment after a careful reiteration of the congressional position, and a full explanation as to the reason for deleting the amendment. The conference report reads as follows:¹¹

"The Senate bill contained no such provision, and the provision is not included in the conference substitute because the committee of conference felt that it was unnecessary. It is the view of the conference committee that under the present law the Commission is not authorized to make or promulgate any rule or regulation the effect of which would be to discriminate against any person because such person has an interest in, or association with, a newspaper or other medium for gathering and disseminating information. Also the Commission could not arbitrarily deny any application solely because of any such interest or association."

From all this it may be concluded that Congress stands squarely in accord with the Court's ruling in the Stahlman case.¹² It would seem that the strong position taken by Congress would have settled the newspaper issue on a "no discrimination" basis but recent developments belie the truth of such a conclusion.

SCHEDULE E

During hearings before the House Committee on Interstate and Foreign Commerce, 83d Congress, 1st session, Friday, February 20, 1953

EXCERPTS OF TESTIMONY OF PAUL A. WALKER, CHAIRMAN, FEDERAL COMMUNICATIONS COMMISSION

Mr. SPRINGER. I think it is awfully important then that your whole question of public policy be rather clear to people who are petitioning for stations. It is my understanding that you did in the so-called public interest deny applications of newspaper owners who were in competition with nonnewspaper owners for the same radio facilities.

⁹ Id., at 7530.

¹⁰ Id., at 7551.

¹¹ See N. 60, supra.

¹² 75 U. S. App. D. C. 176, 179, 126 F. 2d 124, 127 (1942).

Commissioner WALKER. I would not go quite that far.¹³ I think in our radio broadcasting cases, particularly in our earlier decisions, where we had two applicants equally qualified, in the interest of diversity, that we preferred the nonnewspaper applicant to the newspaper applicant, and as I say, to get diversity of community of interest operating in the community.

Mr. SPRINGER. That was in order that the news outlets in the community or the sources of information would be in separate hands; am I right on that?

Commissioner WALKER. That is right.

Mr. SPRINGER. Have you adopted the same policy with reference to television?

Commissioner WALKER. No; we have not had a case before us in which that question was raised, so that we have not had to pass on that policy. However, there has been certain proposed legislation in Congress, and certain debates and reports that probably would make us more conservative along this line, and I am not sure that there is not some provision, or at least some consideration in the McFarland Act. I am advised that the Congress did not make any definite provision in the law, making any direction to the Commission in reference to newspaper applicants.

* * * * *

Mr. SPRINGER. Now, let me ask you this: Have you adopted this same public policy where radio and nonradio interests have been competing for television facilities?

Commissioner WALKER. No; we have not. Television is going to play such a tremendous role in communications that I think that if some of these broadcasters found themselves out in the cold, so to speak, not being able to apply for some of the television stations, that they would be up against it in broadcasting, and it would be a pretty severe rule to say to a man who has rendered a fine service in broadcasting that he was prohibited from going into television, particularly if television in a measure supplants the radio interest in the broadcast field. I do not mean by that to disparage radio broadcasting. There will always be radio broadcasting, in my opinion. Further, in my mind, I do not believe that the radio broadcasters will be forced out of business by television. But as I say, it would be a pretty severe rule which would say to a competent radio broadcaster that he could not get into the television field. You have to have fairness toward the operator and the public interest, fairness to the operator on the one hand, and a diverse opinion about the public interest on the other. I would not say that we should not grant to a broadcaster a television station just simply on that factor.

Mr. SPRINGER. My question was only where you had those who were seeking it who were in radio and those who were not seeking it in radio [sic].

Commissioner WALKER. I would say if you had a much better applicant who was not in radio that he would get the station. But I cannot figure the fact that a man has a radio station would weigh much against him at the moment, because I think he would feel that he was pretty much being put out of business if he knew he could not get a television station because he was in the radio broadcasting business.

Mr. SPRINGER. Are you arriving at that on economic interest or on a question of public policy?

Commissioner WALKER. Not on economic interest. I just have a feeling of innate justness about the thing. I cannot feel that you would deny a man a television station simply because he was in the radio broadcasting business.

* * * * *

Mr. SPRINGER. I am trying to get your fundamental philosophy of what you think of placing television and radio under the same people.

Commissioner WALKER. My fundamental philosophy is that the more competition you can get, provided the operators can exist and make a reasonable profit, the better. Again I say—and this is more a matter of innate justice to the man who has gone in and developed a service to the community—to shut out a radio operator from getting into television simply because he has a radio station does not seem to me quite just. I would like to see in the community another television station. I think in any community which is large enough to support the stations that you always get better results with the competition; that is, a reasonable amount of competition.

¹³ 68 App. D. C. 292, 294; 96 F. 2d 564, 566 (1938).

SCHEDULE F

Radio and television—Earnings before Federal taxes

RADIO

	Earnings	Number of stations	Average per station
1946	\$76,500,000	1,025	74,634
1947	71,800,000	1,464	49,044
1948	64,100,000	1,824	35,142
1949	56,300,000	2,021	27,857
1950	68,200,000	2,229	30,637
1951	57,500,000	2,266	24,896
1952	60,100,000	2,370	25,252
1953	55,000,000	2,479	22,186
1954	41,800,000	2,598	16,089

TELEVISION

1948	(\$14,900,000)	50	
1949	(25,300,000)	98	
1950	(9,200,000)	107	
1951	41,600,000	103	
1952	55,500,000	122	
1953	68,000,000	334	
1954	90,300,000	410	

SCHEDULE G

Revenue and income from all AM-FM stations in Evansville compared with revenue and income from On the Air, Inc., stations in Evansville

Year	Gross broadcasting revenue for all AM-FM stations in Evansville	Gross broadcasting revenue of On the Air, Inc. AM-FM stations in Evansville	Total number AM-FM stations in Evansville	Number of On the Air, Inc. AM-FM stations in Evansville	Net income (or loss) of all stations in Evansville	Net income (or loss) of On the Air Inc. stations
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1945		\$343,031	3	3		\$104,251
1946	\$440,579	361,740	3	3	\$131,070	98,224
1947	624,137	291,792	4	2	141,601	54,408
1948	790,020	323,853	6	2	127,453	56,833
1949	807,101	290,690	6	2	66,824	16,743
1950	929,850	317,000	6	2	128,153	39,724
1951	907,856	311,616	6	2	142,737	44,749
1952	943,142	304,728	6	2	125,870	50,413
1953	987,641	312,855	6	2	36,061	33,106
1954	761,615	243,586	6	2	(82,917)	(20,014)
1955	671,424	216,315	6	2	(62,624)	(17,947)

NOTES.—Figures in cols. (2) and (6) for years 1945 to 1950, inclusive, include amounts for Henderson, Ky., as well as Evansville stations. Beginning with 1951 the figures are for Evansville only.

In 1953, 2 television stations, 1 at Evansville and 1 at Henderson, went on the air (WFIE and WEHT). AM-FM stations in Evansville for 1945-46 were WGBF, WEOA and WMLL (FM); in 1947 WIKY was added; in 1948 WJPS and WIKY-FM were added.

SCHEDULE H

Table showing profit and loss for first 2 months of 1953 and 1956 for On the Air and affiliated companies

	1953	1956
Evansville operation:		
January profit or (loss).....	2,697.33	(2,434.68)
February profit or (loss).....	3,357.91	(3,701.84)
Total.....	6,055.24	(6,136.52)
Terre Haute operation:		
January profit or (loss).....	1,108.85	(4,018.12)
February profit or (loss).....	1,304.04	(2,668.90)
Total.....	2,412.89	(6,717.02)
Total for Evansville and Terre Haute.....	8,468.13	(12,853.54)
St. Louis operation:		
January profit or (loss).....	3,317.40	1,213.54
February profit or (loss).....	2,302.05	743.24
Total.....	5,619.45	1,956.78
Total for Evansville, Terre Haute and St. Louis.....	14,087.58	(10,896.76)
Parent corporation:		
January profit or (loss).....	433.21	567.68
February profit or (loss).....	433.21	650.38
Total.....	866.42	1,218.06
Consolidated net profit or (loss).....	14,954.00	(9,678.70)

SCHEDULE I

Radio station DGBF, Evansville, Ind.—Revenue from NBC network affiliation

1945.....	\$58,323.51	1951.....	50,652.78
1946.....	66,428.09	1952.....	42,514.15
1947.....	66,981.26	1953.....	30,031.32
1948.....	69,248.20	1954.....	17,810.47
1949.....	58,387.32	1955.....	9,981.27
1950.....	58,451.91		

Corresponding revenue for first 4 months of 1956 was \$1,055.89, or an annual rate of \$3,167.67.

(The oral colloquy proceeded as follows:)

Senator PASTORE. You may proceed.

Mr. WALKER. The principle of diversification of ownership is not a requirement of law and can be supported only on the theory of preventing monopoly, or as a form of share the wealth program.

Now, I would like to say, by the questions you have brought out, there are 19 radio and television stations within an area of 50 miles of Evansville, which is the approximate area this station would cover. There are 19 daily newspapers in the area. There are many other weekly newspapers in small towns, and there are many other media which impinge upon that area from the outside, so there cannot be any question of monopoly of any kind.

The Evansville case is the first decision in history in which the Commission has applied the diversification of ownership principle in denying an applicant a grant for a television station when the applicant owned radio stations only.

Senator PASTORE. Well, let me say this to you. In my community we have two channels, channel 10 and channel 12, and the operators of each of the channels had radio stations before they took on their TV licenses. Now, that is precisely the situation in my State.

Mr. Cox. And in most places.

Senator PASTORE. And now you are making the presentation here that that was the one point they used to rule against you?

Mr. WALKER. That this policy is in absolute contradiction.

Senator PASTORE. I think it needs explanation; I think you have made your point, and I think it ought to be explained.

Mr. WALKER. I refer to statements in the appendix by Chairman Hyde of the FCC when he appeared before this committee, and I think he also appeared before the House committee. I have in the appendix excerpts from the committee reports as to why the anti-discrimination section was left out of the bill.

Senator PASTORE. Let me ask you this question, sir. The examiner ruled against you?

Mr. WALKER. Yes, sir.

Senator PASTORE. And ruled for this other group that got it. Was the examiner's report reviewed by the Commission, and did they rule thereon?

Mr. WALKER. There was oral argument on that.

Senator PASTORE. And have they made a decision on it?

Mr. WALKER. Yes, sir.

Senator PASTORE. And they agreed with the examiner?

Mr. WALKER. Yes, sir; even though the Broadcast Bureau filed a brief and exceptions, and recommended that it be granted to us, and the examiner in his record used this language:

Were it not for the fact of ownership of other media we might reasonably have preferred WGBF, and it is perhaps unfortunate that the very facilities whose long and successful operation naturally lays claim to our approval should furnish the basis for ultimate determination against WGBF.

Senator PASTORE. Was it brought out in the case that this man had already established a TV station in three other places before, and then sold out?

Mr. WALKER. Mr. Chairman, we not only brought that out, but brought out another point, that he has been in absolute violation of the Commission's rules three times, was subpoenaed to Washington—

Senator PASTORE. I am not interested in that. I am interested in the point that the man has already applied three other places—got a license, sold it out; went to a new place, got another one, then did it again; and then came to your place and did it again.

Mr. WALKER. Yes, sir; and did not report his transfer of control in three cases, too, and the Commission was aware of that.

Senator PASTORE. The Commission was aware of that?

Mr. WALKER. They certainly were aware of that.

Senator PASTORE. I think we should bring this to the attention of the FCC and get something in the record explaining it.

Mr. WALKER. I would like to go on—I would like to read 2 pages, if I may.

Senator PASTORE. All right, go ahead.

Mr. WALKER. This gets into another overall question, aside from this, beginning at the bottom of page 13.

In its decision, the Commission pointed out that On the Air owns or is affiliated with three radio stations. Certainly the fact has no bearing on any question of monopoly, since the East St. Louis station and the affiliated Terre Haute station are local 250-watt stations whose existing areas are separated many miles from the listening area of

WGFB. Herein the policy is unsupportable. It overlooks the fact that television is a development and a refinement of the broadcast industry, and not a brandnew field.

As Chairman Walker pointed out, television in a measure supplants the radio interest in the broadcast field. WGFB has been on the air since 1923, 2 years after KDKA, the first station in the country. On the Air has owned and operated it for 27 years and has a record of excellent service. To deny it the right to expand and grow with the industry is unfair and is economically disastrous.

Because of the growth of TV, radio is a declining industry. From 1946 through 1954, net earnings before taxes for the whole radio industry declined steadily from \$76.5 million to \$41.8 million. During the same period, the number of stations increased from 1,025 to 2,598, so that the average earnings per station declined from \$74,634 to \$16,089, or a decline of 78.5 percent.

Attached hereto, and designated as "schedule F," appendix, page 14, is a table showing this decline in radio earnings, and the attendant rise in television earnings. In the same period, On the Air's Evansville income from AM and FM declined from \$98,224 to a loss of \$20,012. The 4 AM and 2 FM radio stations in Evansville declined from earnings of \$142,700 in 1951 to a loss of \$82,900 in 1954. These figures are set out in a table attached hereto and designated "schedule G," appendix, page 5. All of these figures are figures filed with or published by the FCC.

I mentioned earlier the possibility that the diversification policy might be based on a share-the-wealth idea. The figures I have given should quickly dispel the possibility that a radio-station owner has any wealth to share. To illustrate even more graphically the situation with our 3 affiliated stations, there is attached hereto and designated as "schedule II," appendix, page 16, a table showing comparative earnings for the first 2 months of 1956 and the same period in 1953. Our companies are faced with continuing losses which can be only slightly mitigated by decreasing the services offered. Whether this will prevent eventual failure only time will tell. The problem is not ours alone. According to the 1954 figures, 30 percent of the stations which had been operating prior to World War II were operating at a loss. There is no free enterprise in an industry which is subject to the control of the FCC.

The policies which have contributed to this critical situation should be reviewed from a realistic standpoint. The broadcast industry should not be led to the brink of ruin by some ivory-towered economists who say, as the Commissioners do, that they are not concerned with the economics of their licensees.

We have felt that we must have television to exist. We are faced with the choice of appealing the Commission's decision with a resultant expenditure of additional large amounts of time and money—

Senator PASTORE. You are not actually saying that the Commission ought to grant you a TV license only because you are losing money running a radio station?

Mr. WALKER. No.

Senator PASTORE. You don't mean that; do you?

Mr. WALKER. No, but I will say that Commissioner Walker, in his testimony before the House committee, said that very thing, that it

was unfair to deny a radio station a license to operate because TV supplants in a large measure the radio interest in the broadcast field.

Senator PASTORE. I don't think they ought to hold it against you, that is the thing that I resent in the matter you have brought up. I don't think the fact that you owned a radio facility should have been held against you. That is the point I make. That is a horse of a different color. I go along with that thinking and that logic.

I don't think that a man who—I don't know whether it is true, now, and I hope the record will show that very clearly—but if what you say is true, that a man has become, so to speak, and I use the word in the broad sense, a professional applicant for TV stations which are granted and then sold, I suppose there—when you do sell it—it is capital gains you pay; and I tell you very frankly a fellow like that, within a few years, could write a book on how to become a millionaire.

Mr. WALKER. That is true.

Senator PASTORE. If he can get away with that—if what you say is true—I think that this committee is entitled to an explanation from the Federal Communications Commission; but I don't go along with the idea that just because a man who is operating a radio station goes in and shows he has been losing money that that, itself, ought to entitle him to be preferred over some qualified group.

Mr. WALKER. We didn't attempt to show that to the Commission at all. That has never been brought up. My point in bringing this up is to show the radio industry is a sick industry, and the policies of the Commission are largely responsible for it having become sick.

In 1946, there were 1,025 stations. In 1954, there were over two and a half times that many, so that beside the incoming of television there has been a tremendous increase in the number of radio stations. But a radio station cannot increase its power, or put up a higher tower, or do what a business under free enterprise can do.

Senator PASTORE. That probably should be given consideration, that that is part of the evidence before the Commission. However, I don't presume to try to decide their cases for them, and I don't think any Member of the Congress does. I think they should give weight to all the factors that go to promote the public interest, and a license should be granted in the public interest, and I will repeat again what I said before, that the matter that you have raised is one of very serious import and implication, and I think we ought to have an answer before we criticize any further.

Thank you very much, sir.

Are there any further witnesses before us this afternoon for or against?

Mr. WALKER. Mr. Chairman, may I make one point? I am sorry to be so persistent.

Senator PASTORE. Yes.

Mr. WALKER. Channel 7 was allocated to Evansville. The Commission is now advising that channel 7 will be deintermixed, or taken out of Evansville.

Long after the applicants for channel 7 started in hearing, channel 9 was allocated to Hatfield, Ind. 18 miles from Evansville, and the present proposal of the Commission is to leave channel 9 18 miles from Evansville—which will dominate Evansville with a VHF station—and remove channel 7.

Now, that isn't our case, because at the present time we are the unsuccessful applicant; but if they put a UHF channel in place of channel 7, it will leave Evansville dominated by a VHF channel owned by out-of-State owners—operated by out-of-State owners—and that is something I think that should be given some consideration.

Senator PASTORE. You have raised that point in your statement, and that is the reason I suggest it ought to be answered before we go further.

Mr. WALKER. Thank you for your courtesy, sir.

Mr. COX. Will you let the record show that the statements of Mr. Gimbel and Mr. Walker will be published in the report of the hearings in connection with the testimony of the other witnesses regarding allocations matters?

Senator PASTORE. Very well. We are recessed, subject to call.

(Whereupon, at 3:40 p. m., the committee adjourned, to be reconvened subject to call.)

(Pursuant to the wishes of Senator Pastore, a copy of Mr. Walker's statement was sent to the Federal Communications Commission for its comments. Since the Commission had not yet ruled on a pending petition for reconsideration, the committee's letter was withheld pending final decision. However, Warren E. Baker, general counsel of the Commission, wrote to the chairman of the committee on June 8, 1956, with respect to this case.

(After the Commission's final decision in the case, Senator Magnuson again wrote to Chairman McConnaughey with respect to this matter. On July 17, 1956, the members of the Commission again appeared before the committee and at that time testified briefly with respect to Mr. Walker's testimony. (See p. 966 below.) At that time Mr. Baker's letter of June 8, 1956, was inserted in the record.

(Thereafter the committee received a letter dated August 30, 1956, from Chairman McConnaughey with reference to this case. This letter is printed at p. 971 below.)

TELEVISION INQUIRY

TUESDAY, JULY 17, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 a. m., Senator George A. Smathers, presiding.

Present: Senators Smathers, Pastore, Purtel, and Wofford.

Also present: Wayne T. Geissinger, assistant chief counsel; Kenneth A. Cox, special counsel; Nicholas Zapple, staff communications counsel.

Senator SMATHERS. Gentlemen, if the meeting will come to order, I might say I am pinch-hitting temporarily for Senator Pastore, who is having to attend a meeting of the Post Office and Civil Service Committee, but who shortly will be here. By way of introduction, I will read this prepared statement.

We are now nearing the conclusion of our television inquiry, for this session of Congress. We are glad to have the members of the Federal Communications Commission, who were our first witnesses, back with us again to again consider some of these problems in the light of what has happened since they last appeared. Before hearing them, however, we have a number of items to be inserted in the record. These are:

First, a letter from Congressman Donald W. Nicholson requesting that the listing of his name with those of other members of the Massachusetts delegation in connection with telegram published at page 52 in the first volume of our hearings be disregarded.

Second, an exchange of correspondence between Senator Magnuson and the Firestone Tire & Rubber Co., which will be published in connection with the testimony of Wilbur M. Havens. (See volume on Network Practices.)

Third, an exchange of correspondence between Senator Magnuson and the Federal Trade Commission as to whether the latter has authority to encourage the manufacture and sale of all-channel sets through labeling requirements or otherwise.

Fourth, a letter from Leonard H. Marks, who appeared before the committee on June 11, 1956, correcting one phase of his testimony. This will be printed in connection with his testimony. (See p. 912.)

Fifth, a letter from the Federal Communications Commission regarding the status of channel 21 in Louisville, Ky., pursuant to an inquiry directed by Senator Pastore as a result of the testimony of Sarkes Tarzian. (This is printed in connection with the latter's testimony in the volume on Network Practices.)

Six, 3 letters from Dr. Frank Stanton: (a) One dated June 14, 1956, regarding certain of his testimony touching on clearance for national spot film programs as reported by the Television Bureau of Advertising; (b) one dated June 27, 1956, regarding certain of his testimony on affiliation coverage in the Fresno-Bakersfield area; (c) one dated June 22, 1956, commenting on six bills relating to political time, pursuant to the request of Senator Magnuson. (These are printed in the volume on Network Practices.)

Seven, a statement on network practices by Paul R. Bartlett of KFRE-TV. This will be printed in connection with the testimony of other CBS affiliates on June 18, 1956. (See volume on Network Practices.)

Eight, statements or letters on network practices submitted by nine affiliates of NBC, which will be printed in connection with the testimony of other NBC affiliates on June 20, 1956. (See volume on Network Practices.) The nine are: Robert B. Ferguson, WTRF-TV, Wheeling, W. Va.; Les Biederman, WPBN-TV, Traverse City, Mich.; Walter J. Damm, WTMJ-TV, Milwaukee, Wis.; Harold P. See, KRON-TV, San Francisco, Calif.; Douglas L. Manship, WBRZ-TV, Baton Rouge, La.; David M. Baltimore, WBRE-TV, Wilkes-Barre, Pa.; Nathan Lord, WAVE, Inc., Louisville, Ky.; Ralph J. McElroy, KWVL-TV, Waterloo, Iowa; and Harold C. Stuart, KVOO-TV, Tulsa, Okla.

(The documents referred to except for those shown to be printed elsewhere, are as follows:)

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D. C., June 26, 1956.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Interstate and Foreign Commerce,
Senate Office Building, Washington, D. C.*

DEAR MR. CHAIRMAN: It is my understanding that my name is listed with other Members of the House of Representatives from Massachusetts on page 52 of the testimony before your committee on the television inquiry.

I would appreciate it if you would disregard my name on this petition.

With kindest regards, I am,

Sincerely,

DONALD W. NICHOLSON.

JUNE 1, 1956.

HON. JOHN W. GWYNNE,
*Chairman, Federal Trade Commission,
Washington, D. C.*

DEAR MR. GWYNNE: As you know, the Senate Interstate and Foreign Commerce Committee has been conducting an inquiry in regard to television allocations. From the testimony heard it is clear that one of the major obstacles to the development of UHF broadcasting has been the fact that the manufacturers of television receiving sets find it in their own interest to manufacture sets capable of receiving only the 12 VHF channels. As a result, some 85 percent of the sets now being manufactured are thus incapable of receiving 72 UHF channels, so that a UHF broadcaster must persuade the public in his area to make an additional expenditure to convert his set to receive the UHF signal. A somewhat similar problem may have arisen, it would appear to me, when the AM radio band was expanded to 1600 kilocycles. I would be interested in knowing what, if any, steps the Federal Trade Commission may have taken at that time to insure that no sets were offered to the public which were not capable of receiving all broadcast radio signals.

In particular, I would like to know whether the Commission either required full reception through some sort of labeling requirement or whether it proceeded against manufacturers for an unfair trade practice or for false and fraudulent

advertising if they attempted to sell sets which could not receive the full range of radio signals. The reason for my inquiry, of course, is that it has occurred to me that you might possibly be able to assist us in promoting the manufacture of all-channel television sets exclusively. The difference in cost to the manufacturer between a VHF-only and an all-channel set can be as low as \$10. However, this means a difference in retail price of \$25 or \$35 so that as long as VHF-only sets are available a certain percentage of the public will buy them, particularly where no UHF service is yet available. Then when a UHF station later goes on the air it is faced with the fact that its VHF competition has 100 percent circulation, while the new station starts off with a circulation of anywhere from zero to 15 percent.

I am wondering whether the Federal Trade Commission would have the power to require either that all sets offered to the public be capable of receiving all of the channels now allocated to the television service by the Federal Communications Commission, or alternatively, whether you would have the power to require a VHF-only set to be clearly labeled to indicate to the public that this particular receiver is incapable of receiving 75 percent of the channels on which television broadcasts may be received.

Such a label should spell out in some detail the fact that if the owner of the set moved to another area he might find that only UHF signals are available, and the fact that additional service in his community can be made available only on UHF channels. It seems to me that this might reduce the percentage of VHF sets now being purchased. Apparently one problem in this connection is that the average television receiver salesman has no real understanding of the UHF problem and is so anxious to make a sale that he is quite willing to push the VHF-only receiver if it appears that the purchaser is reluctant to pay the somewhat higher price of an all-channel set.

It is perfectly clear from the testimony which has been heard by our committee that the UHF frequencies must be preserved and promoted if this country is ever going to have the kind of nationwide competitive television it needs. Anything which the Federal Trade Commission could do to promote the sale of all-channel television receivers would be a real contribution toward the solution of this very difficult problem.

May I please have your comment on these matters at your earliest convenience? Thank you for your cooperation.

Sincerely yours,

WARREN G. MAGNUSON.

FEDERAL TRADE COMMISSION,
Washington, D. C., July 6, 1956.

HON. WARREN G. MAGNUSON,
United States Senate,
Washington, D. C.

DEAR SENATOR MAGNUSON: This is in further reference to your letter of June 1, 1956, relating to the competitive handicaps being encountered by UHF television broadcasting, as revealed in the investigation now being conducted by the Committee on Interstate and Foreign Commerce. You inquire in those connections as to any legal machinery available under statutes administered by the Commission for promoting sales of all-channel television sets as a means of minimizing those obstacles to the growth of UHF broadcasting and furthering the development of nationwide competitive television.

It thus appears that manufacturers of television receivers find it to their interest to emphasize the production of sets capable of receiving the 12 VHF channels rather than all-channel sets; that approximately 85 percent of the receivers now being manufactured are incapable of receiving the 72 UHF channels; and that a new UHF station, when it begins operation in an area already served by a VHF station, has the competitive handicap of a circulation of anywhere from zero to 15 percent and the burden of persuading the public to incur expense in converting their sets to receive the UHF signal. You also call attention to another relevant factor, namely, the general lack of understanding of the UHF problem existing among retail salesmen and their consequent willingness to push sales of VHF receivers when the purchaser evidences reluctance to pay the price of an all-channel set which ranges \$25 to \$35 above the other type.

The AM radio band was expanded from 1,500 kilocycles to 1,600 kilocycles prior to the war and you inquire as to any Commission proceedings instituted in that era which challenged the promotional practices for radio sets incapable of re-

ceiving the full range of signals afforded by that expansion of the band. My inquiry into the matter does not indicate that the Commission was the recipient of any complaints, from consumers or the trade, relating to the marketing of sets which were so deficient. Our records disclose no action or proceeding in that regard.

Your letter also inquires if the Commission has the power to require that all sets offered to the public be capable of receiving all channels now allocated to television service. Under the Federal Trade Commission Act, the Commission's mandate is to prevent the use in commerce of unfair methods of competition and unfair and deceptive acts and practices. Hence, the Commission's jurisdiction ordinarily does not extend to forbidding introduction into or the sale in commerce of an article of merchandise. Its corrective action instead is directed against further use of the unlawful acts or methods under which distribution of the merchandise was promoted in the first instance.

This holds true save in exceptional cases where the questioned practices appear violative of some statutory expression of national policy additional to that contained in the Federal Trade Commission Act. An example of a proceeding in this category is one directed against violations of the Flammable Fabrics Act, the statute which protects the public from dangers resulting from the marketing and use of highly flammable wearing apparel produced for shipment in commerce. However, the principle controlling in those types of cases is absent in the situation to which your letter relates. Even assuming that the merchandising of VHF receivers has been characterized by practices violative of the Federal Trade Commission Act, it is believed nonetheless that the Commission would lack the power to require that the shipment and sale in commerce of television sets be limited to the all-channel category of receivers.

Your letter also inquires as to the Commission's basic authority to require that a set limited only to VHF reception be clearly labeled to indicate that the receiver is incapable of receiving 75 percent of the channels on which television broadcasts may be received; and it requests similar comment by me on requirements for further disclosures by television manufacturers to the effect that the purchaser might find only UHF signals available should he move to another area and that expanded service in his community may be made available only on UHF channels. The Commission has the power to require inclusion of an appropriate statement on the label of an article being offered for sale in commerce concerning its limitations under normal conditions of use when the circumstances are such that the failure to disclose material facts in respect thereto results in deception to the consuming public. Thus, if evidence were available which supported informed determinations that sets limited to reception of VHF signals were being passed off as all-channel receivers, without any affirmative misrepresentations being resorted to for effecting that result, the failure by the seller to reveal the material facts as to his sets' limitations in that respect clearly might be actionable under the Federal Trade Commission Act.

This legal principle underlies rule 2 (d) of the Trade Practice Rules for the Radio and Television Industry as promulgated by the Commission on June 28, 1955. Copies of the rules are enclosed. Under that rule, the term "television receiver," as descriptive of a set, "shall not be used in such manner as to lead the public to believe that such set is constructed for, and capable of receiving with reasonable or adequate consistency, a greater number of * * * television frequency signals or channels than is in fact true of such set."

The revealing statements noted in your letter look to explaining certain potential consequences which may result from purchase of sets which do not afford UHF reception. The Commission has not received any complaints indicating that purchasers living in areas which already have UHF stations are buying VHF receivers under the impression that their sets will receive, without modification or adaptation, all television signals currently broadcast in their areas. Furthermore, the information secured at the time when the aforementioned trade practice conference was being conducted did not afford adequate support for conclusions that the term "television receiver" has been understood by the public to connote sets thus capable of receiving all channels allocated by the Federal Communications Commission to broadcasting purposes.

Nor is the Commission in receipt of information indicating that, in addition to his obvious desire to view current local programing, the purchaser likewise buys his television receiver under an impression or belief that he will be enabled to receive all programs afforded as a result of television's expansion in his community and those to be presented wherever he subsequently may take up residence. In the absence of evidence supporting informed determinations that a substantial segment of the public is in one or both respects so motivated in its

purchases, there would be no valid legal basis for requiring a disclosure in advertising or labeling of the matters noted in your letter in reference to potential limitations attending use of sets which are not all-channel receivers.

Please be assured of the Commission's desire to cooperate with the committee. The committee's published report on the hearings will be noted with great interest.

Very sincerely yours,

JOHN W. GWYNNE, *Chairman.*

Senator SMATHERS. I might say that the record will be kept open, after the conclusion of these hearings, until September 15, so that if anyone wishes to file a statement he can do so up to that time.

Our first witness this morning, and we are very happy to have him over here again, is the Chairman of the Federal Communications Commission, Chairman McConnaughey.

Mr. Chairman, when you are ready.

Mr. McCONNAUGHEY. I am ready.

Senator SMATHERS. Do you have a prepared statement?

Mr. McCONNAUGHEY. No.

STATEMENT OF GEORGE C. McCONNAUGHEY, CHAIRMAN, FEDERAL COMMUNICATIONS COMMISSION, ACCOMPANIED BY COMMISSIONERS ROSEL HYDE, ROBERT BARTLEY, ROBERT E. LEE, RICHARD MACK, T. A. M. CRAVENS, AND WARREN BAKER, GENERAL COUNSEL, MR. LOUIS STEPHENS, AND MR. HART S. COWPERTHWAIT

Mr. Cox. Mr. McConnaughey, I would like to ask a number of questions initially in the light of your action on June 25, in your allocations proceeding.

Would it be fair to say that, as a result of considering all of the proposals that were made to the Commission in your allocations proceeding, the Commission has either reached or has reaffirmed these conclusions: First, that 12 VHF channels are not adequate to provide a nationwide competitive system?

Mr. McCONNAUGHEY. That is correct.

Mr. Cox. Second, that no additional VHF channels can be obtained from other services, at least in sufficient quantities to provide such a service?

Mr. McCONNAUGHEY. None that we know of today.

Mr. Cox. Third, that it is not possible, without serious degradation of service, to squeeze in enough VHF channels through reduction of separations or otherwise to provide a desirable service?

Mr. McCONNAUGHEY. To provide what?

Mr. Cox. A desirable service.

Mr. McCONNAUGHEY. Well, I think that is true; yes.

Mr. Cox. So that taking these three together, it is implicit in the Commission's conclusions that there does not seem to be a possibility of an all-VHF service of the magnitude that the country requires?

Mr. McCONNAUGHEY. That is correct.

Mr. Cox. Now going on from that, the Commission concluded, did it not, that as a consequence it is imperative that we make full use of the UHF portion of the television band in order to develop such a service?

Mr. McCONNAUGHEY. That is correct.

Mr. Cox. You concluded, as I understand it, that it did not appear that this could be accomplished through deintermixture alone, without serious and abrupt disruption of existing service?

Mr. McCONNAUGHEY. That is correct.

Mr. Cox. So it seemed to you that the only real long-range alternative which was left was to try for an all-UHF service—in the whole country or in a major portion of the country—with interim deintermixture on a selective basis to maintain UHF in the meanwhile?

Mr. McCONNAUGHEY. I think that should be the ultimate objective; yes, sir.

Mr. Cox. And in that connection, you called for an increased, a stepped-up program of research and development in order to promote the most rapid possible development of UHF to a condition of equality, or near equality, with VHF?

Mr. McCONNAUGHEY. That is correct.

Mr. Cox. Is it fair to say that your conclusion was reinforced, in this connection, by the growing demands of other services which might possibly, if you effect this shift to all UHF, be accommodated in some of the present VHF?

Mr. McCONNAUGHEY. That was certainly in our thinking.

Mr. Cox. And in addition was this conclusion reinforced by the fact that there would seem to be certain inherent advantages in an all-UHF service in the nature of the service—the all-band service—in having a completely contiguous service with a minimum variation in frequencies, and things of that kind?

Mr. McCONNAUGHEY. That is correct, if the developments can come along.

Mr. Cox. Now, as I understand it, the Commission has not, however, presently decided to transfer all television to UHF?

Mr. McCONNAUGHEY. Oh, no.

Mr. Cox. It has decided, however, has it, to do this at the earliest possible future date, if its expectations as to the possibility of improving UHF technically turn out well?

Mr. McCONNAUGHEY. I think that the order indicates that the Commission—the majority of the Commission—if the developments occur with reference to UHF developments, that they would look toward moving a portion of the country, or all of the country, to UHF in the final analysis. I think that is inherent in the order itself.

Mr. Cox. Would you say that the only—

Mr. McCONNAUGHEY. Providing there would be a transition period there for amortization and a period of time where the public would not be disrupted to an inordinate extent.

Mr. Cox. Yes, indeed.

Well, then, is it accurate to say that the only condition remaining to be satisfied before such a shift, either on a nationwide basis or on a regional basis, is the technical development of UHF to a point where it seems clear to the Commission that it can provide an adequate television service alone?

Mr. McCONNAUGHEY. I think fundamentally that is true, that we must await the developments to see what can be done toward moving toward UHF.

Mr. Cox. Now, is it the feeling of the Commission—based on the progress that has been made in UHF technology in the last 4 years—that the chances are good that this can be done, and that therefore in

the foreseeable future the Commission would expect actually to effectuate this program?

Mr. McCONNAUGHEY. Mr. Cox, I do not know whether there have been sufficient developments to make that appear possible very—I mean real soon. I do think that there have been developments made that are very encouraging from the standpoint of the UHF transmitters and receivers.

Mr. Cox. That is, the Commission knows of no fundamental characteristics of UHF which makes it impossible to develop it—through improved transmitters, receivers, tubes, antenna, and so forth—to develop an all-UHF service which would provide either the same, or very nearly the same, service now being provided by VHF?

Mr. McCONNAUGHEY. I am not, as you know, Mr. Cox, a technician, but I do understand that the UHF so far will not give the distance signal as clear, there are shadow areas, there are interruptions from trees and leaves, and in certain mountainous countries—mountainous parts of our country—there are a great many difficulties to be encountered.

Those are technical things which I just cannot answer. I know there are a lot of those things that UHF is going to have to overcome. It is not, as of today, a service comparable to the VHF.

Mr. Cox. Do your engineers advise you, though, that it has the potentiality to become such within the foreseeable future?

Mr. McCONNAUGHEY. I don't think Mr. Allen is here—he is the chief engineer. I don't know as he would go that far, because the developments in the shadow areas and the propagation characteristics have not, as I understand it, been yet developed to where it is a service that can begin to do the same job as the VHF service. It does a good job for short distances, I think, if we had the receivers properly developed and the antennas.

Mr. Cox. In that connection, you suggested, did you not, that attention be given to further development of satellites for use in trying to fill in shadow areas and things of that sort?

Mr. McCONNAUGHEY. That is right; that is right.

Mr. Cox. Now, I take it that this was the reason for calling for this program of expedited research and development?

Mr. McCONNAUGHEY. Yes, sir.

Mr. Cox. To try to bring UHF along to the point where, it is hoped by the Commission, it could provide a service—an all-UHF service—at least in the more densely populated parts of the country?

Mr. McCONNAUGHEY. To where it would be a satisfactory service to the public.

Senator SMATHERS. Counsel, let me ask a question there. I am somewhat uninformed on this particular problem. But following the lines of thinking of Mr. Cox there, if you are able to make the UHF competitive then what would be the necessity of making everything all-UHF? Why, then, would you not be able to permit UHF and VHF to operate, you might say, contemporaneously if they are competitive, one with the other?

Mr. McCONNAUGHEY. So far, Senator Smathers, the UHF has not developed to the place where they are able to compete with the VHF.

Senator SMATHERS. But if, as Mr. Cox' questions suggest, it is possible, through research and improved technical media, to make UHF competitive by improving, as you say, the further range of it and the

delivery of it over the airways, and so on—if that is possible, is that not, itself, a sufficient answer, or somewhat of an answer alone? Or is that not an answer? That is what I am trying to get at.

Mr. McCONNAUGHEY. If it could be made comparable, so it could be equally competitive, there would be no good reason for not utilizing both the V and the U. So far, that has not developed.

Mr. Cox. Except, of course, for the possibility that you may find a need for the VHF channels for other services?

Mr. McCONNAUGHEY. That is right.

Mr. Cox. Now, as I recall the terminology in your report, you indicated that—

Mr. McCONNAUGHEY. Let me complete my answer to Senator Smathers.

Mr. Cox. Certainly, sir.

Mr. McCONNAUGHEY. There is one thing that is known, Senator Smathers, with reference to the V and the U, which so far as I know—and again I must say I am not a technician—so far as I know there is nothing to indicate that the UHF can get the same range as a VHF. I know of nothing in the offing to indicate that.

That means merely this: That difficulty is encountered—from what we know today, from what is in the foreseeable future—with reference to the U obtaining the same range as the V. Therefore, I am the Coca-Cola Co., and I won't buy the U because I can get a V which will give me the coverage of a lot more people. And that is something that exists today in a very substantial way, and is something that I do not know whether that, in itself, can ever be overcome.

Senator SMATHERS. So, then, your conclusion, as I gather—the Commission's general conclusion—is that, presuming that inequality can never be made up as between UHF and VHF, then your general suggestion was that there may be a possibility of doing away, as far as the public is concerned, with the VHF's and making everything UHF?

Mr. McCONNAUGHEY. That is correct, sir.

Senator SMATHERS. In that connection, what would happen to all the folks who bought VHF sets and things of that nature?

Mr. McCONNAUGHEY. As indicated in our order of June 25, that would be taken care of by an amortization period of 5 to 7 years, we will say, for example, whereby the stations could operate on both the V and the U for a period of time to give the receivers—the people who own the receivers—time to amortize their investment.

Senator SMATHERS. How would you recompense the owners of the VHF stations; what sort of arrangement would be made with them?

Mr. McCONNAUGHEY. We would not recompense them. They would also have a period of time to amortize—which they are already doing. They naturally depreciate their equipment, and they would have a period of time to amortize that in order that—

Senator SMATHERS. Do you think you might run into a constitutional question of depriving people of property without due process of law?

Mr. McCONNAUGHEY. No, I don't think so. Do you want to answer that, General Counsel?

Mr. BAKER. The statute, itself, gives them no right to the frequency after the 3-year period, so obviously they have no constitutional right to a renewal beyond that period on the same frequency. I think the

Commission's contemplation would be longer than what the law, itself, would necessarily require.

Mr. Cox. Through a stepped-up depreciation they would be permitted to recapture the entire cost of their equipment out of income during that period?

Mr. McConnaughey. That is correct, Mr. Cox.

Senator Purcell. May I pursue that question a little further? When you spoke of range, you were not speaking only in the sense of range in the mileage covered, but also the manner in which it is covered? For instance, the terrain of the area covered would have a great deal to do with your so-called range?

Mr. McConnaughey. Yes. Before you came in, Senator Purcell, I mentioned that in some areas of the country UHF, so far, has had a very difficult time in obtaining any substantial proper reception.

Senator Purcell. Because of the terrain?

Mr. McConnaughey. Yes; in certain mountainous sections of the United States.

Mr. Cox. There are successful operations of UHF, however, in fairly rugged terrain—Scranton, Wilkes-Barre, places like that?

Mr. McConnaughey. That is correct, and there we get into a highly technical discussion, that I have talked to our chief engineer about, and we all have. Peculiar things happen, such as in the Wilkes-Barre situation where that is rugged country, and they seem to get pretty good reception. You can take in other sections where it is rugged, and they have encountered very serious difficulties.

Mr. Cox. Am I correct in my understanding, as you indicate, that there probably will be, for all time, a difference in the range to which these signals can reach out?

Mr. McConnaughey. I shouldn't make that statement, but that is my understanding from the engineers.

Mr. Cox. But even contemplating that, it is the position of the Commission that at least in the more densely populated areas—with foreseeable technical improvements—UHF could be brought to the point where, if it was not forced to compete with the greater range V stations, it could provide an adequate service by itself?

Mr. McConnaughey. That certainly is our hope and expectation.

Senator Purcell. May I ask what do you mean by "foreseeable"? Have we any reason to believe that this crash program, this contemplated development, will in fact be realized?

Mr. McConnaughey. Senator Purcell, I have not seen the demonstration, but I understand the General Electric Co. has developed a tube which will be on the market before long which is going to be a very substantial assistance. I also note that, in the statements they made in answer to our rulemaking—they are not manufacturers. Well, yes, they are manufacturers, such as RCA, and people of that kind. They all say that the U must be utilized. And I believe that the ingenuity of the American inventive genius, I call it—I have enough confidence in it to believe that they can and will make developments so there can be a proper coverage and proper utilization of UHF.

Senator Purcell. My reason for asking about "foreseeable"—actually we are hopeful that it can be done, but we cannot foresee it being done as yet, can we?

Mr. McConnaughey. I think that is a very fair statement. We can't foresee it; we can't sit here and foresee it today. But I cer-

tainly hope, and I believe that the Commission is going to use every effort that it possibly can to try to foster and promulgate the development with the manufacturers, coordinating with them in the development of the UHF antennas, transmitters, and receivers. And I made the statement on several occasions that I think we are going to have to ask the help of Congress. I can't sit here today and tell you exactly in what sphere, but I think it is serious enough with only 12 channels being utilized—you cannot get a nationwide television system. You have got to start on that premise. That being the case, you have to, in order to get a nationwide television system, in order to get rid of all this cry of monopoly, and all that sort of thing—and it is dangerous, I will admit, because you are dealing with something that is extremely sensitive and important when you are dealing with mass communications by voice and by picture—I believe that we may have to ask Congress to face up to it, and it is not going to be easy. It is going to take a lot of fortitude. I can't point my finger at the way. I don't know whether it is going to have to be that no receivers can be sent in interstate commerce unless they are all-channel receivers. I don't know whether that is constitutional, or whether it isn't.

The tax situation is something else. But I think along the line, when we get the comments of this rulemaking proceeding of June 27, we are going to have to come to you folks and ask your help.

Senator PURTELL. I want to say this, Mr. Chairman, that I have a great sympathy with, and a great respect for, this Commission. I know of no Commission faced with so many perplexing problems as this Commission is. And I am delighted to know, and hopeful with you, that this crash program will bring the results. I can think of nothing, in my opinion, that would probably help more to solve the problem, if it is successful. But there is an awfully big "if" there. What bothers me is what will happen in the meantime.

But I do think that your crash program is an excellent idea, and I hope that it is realized. But I think—my own thinking, sir, is that it is going to be quite a while before it is realized. In the meantime, I am very much concerned with what will happen.

Senator SMATHERS. May I ask a question right along that line: What is the Commission actually doing, specifically, with respect to helping bring about these improvements in UHF? What is it that you can do, what is it that Congress can do? What specifically can be done?

Mr. McCONNAUGHEY. I think I made the statement that the Commission, what it can do will have to depend upon the comments that it gets from this rulemaking proceeding. Then I think we can figure what we can do, and we can come to you folks and tell you what we think should be done in order to assist.

Senator SMATHERS. In other words, it looks like we appropriate considerable money for research and development in all kinds of fields, munitions fields, things of that nature.

Mr. McCONNAUGHEY. Yes.

Senator SMATHERS. It might be that you people would ask us for some assistance for these various companies that might enter into research in this particular field of improving UHF?

Mr. McCONNAUGHEY. Absolutely.

Senator SMATHERS. Something of that nature?

Mr. McCONNAUGHEY. Absolutely.

Senator SMATHERS. Up to this point you have not decided specifically what recommendation you are going to make?

Mr. McCONNAUGHEY. No, sir. We are going to have to wait to get our comments from this rulemaking proceeding.

Senator SMATHERS. Have you gone far enough in your thinking to determine whether or not, if you decided that you were going to adopt this program of an all-UHF service all over the country, would you give any extra consideration to those operators of VHF stations who might be making applications for UHF stations, or things of that nature? Have you gone that far in your thinking yet? Probably you haven't; I just wondered.

Mr. McCONNAUGHEY. No.

Senator SMATHERS. All right, Senator, do you want to ask a question?

Senator WOFFORD. Yes; I would like to ask a question. Mr. McConnaughey—I believe that is correct, isn't it?

Mr. McCONNAUGHEY. Yes, sir.

Senator WOFFORD. You used the words "expect in the foreseeable future." Can you give us any more definite idea than just the general phrase "foreseeable future" as to this possible development?

Mr. McCONNAUGHEY. No, I don't believe so, sir.

Senator WOFFORD. In other words, you have no idea how many years that you can anticipate it would take for the scientific development to make UHF truly equal to VHF, do you?

Mr. McCONNAUGHEY. I certainly do not, no, sir. That depends upon the developments, Senator.

Senator WOFFORD. Certainly at the present time to do it all at once certainly would not give the coverage that you presently have, would it?

Mr. McCONNAUGHEY. Oh, no.

Senator WOFFORD. That is not your contemplation, is it?

Mr. McCONNAUGHEY. No; heavens no. There is one thing I want to make very clear. This Commission, in my opinion—I am speaking for myself and I am quite sure I am speaking for the whole Commission—are not going to do anything, Senator, that is going to take away service from the people in this country. The only thing we are interested in is the public. We are not interested in this station owner or that station owner, or this individual or that individual; we are only interested in the public. That is what we are charged with, that responsibility, and we are not going to take away service from the public.

Senator WOFFORD. In that connection may I ask you: Even at the present time, with the developments we now have in UHF, at best you have at the present time a spotty coverage—even, in some cities, on different sides of the streets you can get a signal plain and on the other side you can't; isn't that true?

Mr. McCONNAUGHEY. That is true in some places. However, take in the Fort Wayne, Ind., area, where it is all-UHF—and very fine coverage and no complaints and very fine picture—and they are doing an excellent job; Youngstown, Ohio, my state, which is all-UHF, they are doing an excellent job.

Senator WOFFORD. Wouldn't you have the same situation where you had only VHF, and you are getting fine coverage?

Mr. McCONNAUGHEY. Same situation where? Oh, yes, and you get better coverage with the V.

Senator WOFFORD. There is no question about that.

Mr. McCONNAUGHEY. There isn't any question about that.

Senator WOFFORD. You want to change it to make it all, eventually, UHF—that is what the intention of the Commission is at the present time?

Mr. McCONNAUGHEY. If the developments come.

Senator WOFFORD. Yes.

Mr. McCONNAUGHEY. If the receivers are developed, the antennas and the transmitters—if they develop them sufficiently so you and I, as people sitting in our living room, can get an adequate picture.

Senator WOFFORD. Yes. Now, certainly during the period of time when you would change over you would not deprive any present listeners—viewers, rather—and listeners of the TV programs that they are getting?

Mr. McCONNAUGHEY. No, sir; no, sir.

Senator WOFFORD. Now let me ask you just one further question, sir: Has the Commission taken into consideration fully the interests of the public in this matter?

Mr. McCONNAUGHEY. I think that has been the principal thing that the Commission has done, is to take into consideration the interest of the public. That has been the primary thing they have done.

Senator WOFFORD. Have you made any survey, or has any survey been attempted, to determine the public's view? You see, after all, they have a terrific investment in these television sets.

Mr. McCONNAUGHEY. You mean the public's view. What do you mean?

Senator WOFFORD. With reference to the public's ideas and views on the changes that you all contemplate—you realize that they have a terrific investment in television sets?

Mr. McCONNAUGHEY. Yes; I see what you are talking about.

Senator WOFFORD. That would be worn out by the time you get through. But some people have to use kind of wornout television sets. Or else they would have to convert; wouldn't they?

Mr. McCONNAUGHEY. As I said before you came in, sir, what is contemplated would be an ample period of time for an amortization period to exist, where they would operate on both V and U, and an ample period of time would be given for the receiver sets to be amortized completely.

Senator WOFFORD. Yes. The receiver sets.

Mr. McCONNAUGHEY. Yes.

Senator WOFFORD. To be amortized in the home.

Mr. McCONNAUGHEY. You understand what I mean, that they do replace them.

Senator WOFFORD. Oh, yes—

Mr. McCONNAUGHEY. They do replace them after a period of 4 or 5 years.

Senator WOFFORD. Mostly on credit—

Mr. McCONNAUGHEY. I don't know about that. I expect so, maybe.

Senator WOFFORD. So that the point I am getting at is that the man who has the television set now, that can only receive VHF, if you put a UHF in over that, he has got to either convert or buy a new television set; hasn't he?

Mr. McCONNAUGHEY. That is right.

Senator WOFFORD. That is of a great deal of interest to the public generally; isn't it? Have you ever taken that into consideration?

Mr. McCONNAUGHEY. Oh, yes. Yes, sir; that is the reason we are going to allow for this amortization period.

Senator WOFFORD. That is with reference to the television stations themselves. I am talking about the man who owns the set.

Mr. McCONNAUGHEY. I am talking about the receivers, too. I mean not amortization from the standpoint—well, useful life is a better word.

Senator WOFFORD. Useful life.

Mr. McCONNAUGHEY. Yes; that is a better word.

Mr. Cox. Your understanding is that during this transition period, in the normal replacement cycle for these sets, the public would be turning over their present equipment, and that under the impact of this program, plus possibly legislative assistance from the Congress, the only sets available for them to buy at that time would be all-channel sets?

Mr. McCONNAUGHEY. That is correct.

Mr. Cox. So that they would, in the normal course of replacement and at no added expense to themselves, be in a position to receive the UHF signals?

Mr. McCONNAUGHEY. That is correct.

Senator WOFFORD. May I finish my inquiry?

Senator PURFELL. Would you yield to me for a moment, Senator?

You say the only set they would be able to buy. May I inquire: Do we intend to try to pass a law saying they can only buy all-channel sets at that point? Have we any guaranty that the manufacturer will supply only all-channel sets? I don't know that we have, at that time or at any other time. If you have islands of V stations around the country, you are going to ask the people then to convert when they are getting pretty good reception with a V? I think you have a problem there.

Now I want to make it clear that I think you fellows are trying to solve a problem that, in my opinion, as I said before, is probably as complex a problem as ever came before any commission. And I have great admiration for the way in which you are going about it. I don't agree with some of your conclusions and I intend to state so. But I certainly think you are trying to find the answer. However, in finding that answer, I hope we are not going to hurt a lot of people simply because an easier answer appears to be available.

But I do inquire again: What assurance have we got, where we have all these islands of V's which will be the result of any deintermixture, what right do we have to expect that those people have to buy all-channel sets during this period of transition that you speak about, Mr. Chairman? You have V and you have ultra; and you are going to have them simultaneously broadcast, is that right—if this crash program develops successfully; is that right?

Mr. McCONNAUGHEY. That is right.

Senator PURFELL. Are we going to say to those people who have V sets—take an area with all V—are we going to say to these people: You must buy at the end of 2 years or 3 years, or whatever the period is—in the meantime you will get simultaneously ultra and V trans-

mission—but at the end of that time you are going to have to buy ultra receiving apparatus? Are we going to say that?

Mr. McCONNAUGHEY. Yes.

Senator PURTELL. Aren't we then in the process of building up a tremendous resistance toward that movement by setting up these islands of V's?

Mr. McCONNAUGHEY. I don't think so; I say, I don't believe so, Senator. I think, if given a proper period of time, and if the developments come along properly, I don't think we are going to build up any resistance. I can assure you that, as far as I am concerned, I don't propose to be a party to doing anything that is going to actually injure the public.

Senator PURTELL. I am sure of that; I am sure of that.

Mr. McCONNAUGHEY. And I think that if the developments come along, this thing can move to the UHF gradually, slowly in this country. If they get the proper coverage, they are going to get more channels, have more local programing; it is going to inure to the benefit of the public. In other words, in my little State of Ohio, where you have only got Cleveland, Columbus, Cincinnati, Dayton, Toledo, Youngstown, and Akron, and you have got cities like Mansfield, Portsmouth, Warren—I can go on and on and on, cities of 40,000 to 75,000, with no possibility of having their own local outlet—to me we are going to have to do something, this country, to utilize those 70 U channels to let local expression come into existence; and I know of no other way to do it than by the development of UHF. I think the public is going to benefit. I think the public is—they are going to be the beneficiaries. There will be a period of time when, as the development occurs, there will be some people that would have a set that might have to replace it after 3 or 4 years, or convert it and spend \$20 to convert it. To me that is not a very serious problem when you think of the overall possibilities of the development of the UHF sphere.

Senator PURTELL. That is the very problem that we are faced with now, where people won't convert, where they have ultra high and very high. Isn't that one of the problems facing your Commission?

Mr. McCONNAUGHEY. It sure is. And one of the reasons is that the converters haven't been so good. They haven't had good experience with the converters in an awful lot of instances. I can understand why.

Another is this: It is human nature, I guess—we talk about competitive system and as many outlets as we can have—but it is a peculiar thing that people convert and then the converter goes bad, but they can still get one station, and they won't even have it fixed. In other words, people seem to just go along and follow the lines of least resistance.

All I am trying to point out is that the converters, like a great deal of this situation, have not been developed to where they are doing a very good job.

Senator PURTELL. I want to say I am imposing upon my colleague from South Carolina. He was asking questions and I asked him to yield. So I appreciate it. I appreciate your yielding.

Senator SMATHERS. The Senator from South Carolina.

Senator WOFFORD. That is the very point I was getting at, or attempting to. I will go back to my original question. Has any poll

been made of the public, or any attempt, as to their desires in the matter?

Mr. McCONNAUGHEY. No, Senator Wofford. There was no poll taken of the public. It is a strange thing. We go through all these investigations up here on the Hill, all these appearances, and I pointed out before we are interested in the public, and the public hasn't screamed. It is UHF operator who is unhappy, or somebody unhappy about a network operation or monopoly, or this, that, and the other thing. The public hasn't been screaming. The public frequently does not scream, but I think we owe an obligation—

Senator WOFFORD. Do you mean—may I interrupt? Do you mean by screaming coming up here before this committee and testifying? How many people do you think from South Carolina have the money to come to Washington and present their case?

Mr. McCONNAUGHEY. No; I meant letters to us, complaints of any description, letters of any kind to the Commission. We get very few complaints about anything in this sphere. But I think we owe an obligation—an aggressive obligation—to the public to give them, if it is possible, the utilization of a broader service in this country. I think we owe that obligation. I think that is the reason we were established by Congress.

Senator WOFFORD. You spoke of \$20. Do you know how you can put up a converter and an antenna for \$20?

Mr. McCONNAUGHEY. Not an antenna.

Senator WOFFORD. You have to put an antenna up, too?

Mr. McCONNAUGHEY. In most cases.

Senator WOFFORD. And even if you have a perfect converter—and I have never seen or heard of one—it would cost you more money than that, wouldn't it?

Mr. McCONNAUGHEY. That is right, if you start with the antenna.

Senator WOFFORD. About \$75 or \$80?

Mr. McCONNAUGHEY. In some places. I have talked to people; they say they do it for \$45, \$60, some of them \$70.

Senator WOFFORD. That is not counting getting back to repair it often, too, isn't it?

Mr. McCONNAUGHEY. Yes.

Senator SMATHERS. Mr. Chairman, isn't, as I understand it, what the purpose is, by converting to all-UHF channels, is to make it possible so that more people, whether they live in a big city or whether they live in a small city, would have the opportunity of enjoying television?

Mr. McCONNAUGHEY. And local expression, sir.

Senator SMATHERS. To use all of the channels which are available—and obviously there being more UHF channels than there are VHF channels, then you believe there would be a better service, and that overall the people would generally be better served; is that not the purpose of this whole thing?

Mr. McCONNAUGHEY. I don't think there is any doubt about that.

Senator SMATHERS. So that what I am trying to get at, where some people in the cities who already have VHF sets—and they may not like it particularly—it is like anything else, you give way in some respects to what is the overall need? That seems to be the general policy of the Congress in the country all the way through.

Mr. McCONNAUGHEY. I think so.

Senator PURTELL. Except, of course, we must make this exception at the present moment, that our research hasn't developed the fact, as yet, that this is the answer, and it will not until we have completed the research; isn't that correct?

Mr. McCONNAUGHEY. That is correct.

Senator SMATHERS. But the reason why you are thinking of this whole matter is for the purpose of trying to serve more of the general public.

Mr. McCONNAUGHEY. That is certainly true; that is what I have tried to say.

Senator PURTELL. Actually, if the crash program is successful, this is the way to do it, I agree with you. The only thing that bothers me, and continues to bother me, is what is going to happen to the crash program if it isn't successful. What is going to happen to those stations, or places to which stations should have been given on an equitable and fair basis, what would happen if it doesn't develop that it is successful?

Mr. Cox. In connection with this crash program, Mr. McConnaughey, is it the purpose of the FCC to try to provide guidance and supervision for that, to keep it moving so that it can be accomplished as rapidly as possible?

Mr. McCONNAUGHEY. Yes; it is, Mr. Cox.

Mr. Cox. I had assumed, though, that the actual research and the actual development of new and improved forms of equipment would depend largely upon the efforts of manufacturers in the field?

Mr. McCONNAUGHEY. That is correct.

Mr. Cox. And it is hoped, through these comments that you are going to receive in this proceeding you have instituted, that the industry generally will make suggestions as to how this can best be channeled for the development of this U equipment.

Mr. McCONNAUGHEY. Yes; and I think I would go further than that: I feel that the Commission must become aggressive and ask the manufacturers to set up an organization—or a group, or however, they care to do it—and let the Commission help and assist, if it is possible, and the Commission kind of take the leadership in this matter.

That is not in any order; that is not something that I have discussed with the Commission; that is just my own personal opinion that I think the Commission should become very aggressive and attempt to do everything to encourage the several people to expedite the crash program.

Mr. Cox. Won't this have a kind of cumulative effect? That is, as it appears that the chances of working out some kind of all-UHF service are increasing, that then it becomes to the self-interest of the manufacturers to as rapidly as possible develop equipment which will make them competitive with others in the field.

Mr. McCONNAUGHEY. There isn't any question about that. I think we all recognize the manufacturer's position. He is manufacturing the VHF sets today; he is in business to make a profit, thank goodness.

But I think that as they see this direction that the Commission is moving—and I think they already feel that—as they see the direction we are moving in, it is going to encourage them to expedite the development of the UHF.

I think they are very cognizant of it. I think they are extremely cognizant of it.

Mr. Cox. Is it possible, even with real improvement in UHF equipment, that there may be some areas or some conditions of terrain and so on where VHF will still have to be employed in order to provide the present quality of service?

Mr. McCONNAUGHEY. I think so. I say I believe so; I believe that is correct.

Mr. Cox. Would this be more likely to be in areas of sparser population, where there are greater intervals between the cities which would be capable of supporting a television service?

Mr. McCONNAUGHEY. I think you could say in certain sections outside of zone I—when you get into the western part of the United States, where your distances are great, your communities are extremely small—that the V may always have to be utilized in those wide comerage areas.

Mr. Cox. But you have found, have you not, generally that in that area you don't have the same problem? In other words, the VHF channels there provide an adequate service?

Mr. McCONNAUGHEY. Yes; and we have quite a number of them in the western part of the United States.

Mr. Cox. Now, it is basic to your approach, is it not, that while you're implementing this shift to all UHF—if and when it appears that the technical improvement is coming along in a satisfactory fashion—that meanwhile you are going to try to improve opportunities for effective competition among a greater number of stations?

Mr. McCONNAUGHEY. That is right; I say that is correct.

Mr. Cox. And you propose to do this through this program of selective deintermixture?

Mr. McCONNAUGHEY. Through the interim program that we have proposed here.

Mr. Cox. And this has the dual characteristic you point out in your report of deleting certain V channels in some areas and then either making use of those in other areas or dropping in additional V's where, under your new rules as to separation from transmitter sites, it is possible to do so.

Mr. McCONNAUGHEY. That is a proposal which is made in the rule-making proceedings, for which we will await comments.

Mr. Cox. Yes. To get this under way you have instituted rule-making proceedings to accomplish proposed allocation changes in 13 areas.

Mr. McCONNAUGHEY. To date, that is correct.

Mr. Cox. Yes. Now, you have some other proposals for deintermixture which are already before the Commission, have you not, which are in a position to be disposed of; and in fact, the Commission acted on some since issuing this report.

Mr. McCONNAUGHEY. That is correct; I say that is correct, Mr. Cox.

Mr. Cox. And you have indicated, have you not, that you will entertain additional petitions for deintermixture if parties come to you and say that they feel that there is another area in which in this interim deintermixture would help to preserve UHF and to promote UHF service?

Mr. McCONNAUGHEY. That certainly is true.

Senator PURTELL. I would like to ask a question along that line.

Senator SMATHERS. All right, sir.

Senator PURTELL. On this question of deintermixture, is it done to provide a better competitive position always? And if it is, on what do you predicate the criteria that you establish for that? Is it usual—Mr. Chairman, what I am getting at, is it usually in those areas where the people have resisted conversion to ultra high.

Mr. McCONNAUGHEY. No, no. Again, I can't speak for the whole Commission. I think what was attempted to be done was where the UHF was assigned and in operation, generally speaking, and the V assignment had been made but was not on the air, that generally speaking there was a rulemaking proceeding put out looking toward that being an all-UHF area, such as Fort Wayne and such as Youngstown, Ohio; but bearing in mind, Senator Purtell, that when the comments come in, we must be cognizant of the service that is going to be given. If people are going to lose service, that is one thing. If they are not—

Senator PURTELL. Or be denied service?

Mr. McCONNAUGHEY. Or be denied service; yes. And I think, to be perfectly frank about it, I think that—I don't think, I know—it is a tremendous boon to the UHF, to the development of UHF.

Senator PURTELL. This is all part of the ultimate pattern, as I understand it, from the report. This is all part of an ultimate pattern that will fit into this complete deintermixture of, let's say, areas east of the Mississippi, if—and again, it is a big "if," and I stress it, because in my mind it is—if this crash program is successful. But Mr. Chairman, in the meantime, if it isn't successful—and we have no reason to believe—any more reason to believe that it will be than it won't be, we just don't know—will it not be true then that certain parts of the country in which deintermixture has been established, that those places will be denied a V channel—bearing in mind what the act said "equitable and fair"—will they not be denied forever a V channel because they have already been denied it on the basis that ultimately we are going to make ultrahigh everything east of the Mississippi?

Mr. McCONNAUGHEY. You mean that it would all be—

Senator PURTELL. Let's take a city—

Mr. McCONNAUGHEY. I don't understand.

Senator PURTELL. Maybe I wasn't clear. Let's take a city that has had an assignment of a V channel.

Mr. McCONNAUGHEY. Yes.

Senator PURTELL. And the Commission decides that they will deny that application, if it is an application, on the basis that they are making it all ultrahigh, and also on the basis that ultimately you hope to have all ultra and this is one step toward it, which if you ultimately accomplish your purpose would probably be—would be a step forward.

But in the meantime that V channel is assigned elsewhere. Now, the crash program doesn't work out successfully—and I hope it does, but I have no assurance it will. Then isn't that particular area forever denied that V station, or channel, because you have taken and assigned it elsewhere? Can they come back and say to you: "Well, gentlemen, your crash program didn't work out and now we would like that V that we are entitled to."

Mr. McCONNAUGHEY. Well, I see what you are talking about all right. [Laughter.] I get what you are talking about.

Senator PURTELL. I can assure you, sir, that it is just simply those questions that come up that I would like you to answer.

Mr. McCONNAUGHEY. And I think I can answer it; I say I think I can answer it, Senator Purtell. I don't think that that will present any problem because you can still move V's if it is necessary. In other words, there would be nothing—let's take a theoretical case. You must have in mind Hartford, Conn.

Senator PURTELL. I do. [Laughter.]

Let me make this clear, Mr. Chairman, because I think this is important—

Mr. McCONNAUGHEY. I know it.

Senator PURTELL. I am from Connecticut, and obviously I am interested in Hartford, but I am more interested in the whole country.

Mr. McCONNAUGHEY. I know you are, sir, I know you are. But what I was going to say is because of Hartford—to answer your question—it would not be impossible or too difficult to move a V channel from someplace else to Hartford; New York City, I will take as an example, where there are seven of them. I just give that as an example.

Senator PURTELL. Yes.

Mr. McCONNAUGHEY. In other words, I don't—in my judgment I don't think there would be any problem with reference to giving a given place, where a V would be taken out of, giving that place proper protection.

Senator PURTELL. Aren't we multiplying our problems in the event the crash program doesn't work out, then?

Mr. McCONNAUGHEY. I don't think so.

Senator PURTELL. If we don't, then, Mr. Chairman, it would appear to me the only answer is that they would be forever denied a V.

Senator SMATHERS. May I ask a question which I am not clear on, if the Senator will excuse me. Does the Commission now have a rule that while they are considering this so-called crash program they are no longer going to grant any application for V channels, which may have already been allocated?

Senator PURTELL. They are granting the application—making a grant—but withholding the construction until such time as they decide whether to deintermix a certain place.

Senator SMATHERS. Let me just put it one other way—

Mr. McCONNAUGHEY. We are not holding up any other V's.

Senator SMATHERS. If I get it completely clear, you mean in an area—take Hartford, Conn., for example—I don't know what situation is there; maybe there has been an allocation, or there has been a determination that there is a V channel available.

Mr. McCONNAUGHEY. That is correct.

Senator SMATHERS. Now, there is Mr. A, Mr. B, and Mr. C who are applying for that V channel.

Mr. McCONNAUGHEY. That is correct, and we are going to give it to Mr. A, Mr. B, or Mr. C.

Senator SMATHERS. Mr. A, Mr. B, or Mr. C will get it in the determination of the Commission as to which one will render the best public service.

Mr. McCONNAUGHEY. Yes, sir.

Senator SMATHERS. Do you withhold, however, the construction permit?

Mr. McCONNAUGHEY. That is right, until we finish rulemaking.

Senator SMATHERS. Until such time as you finish rulemaking.

Mr. McCONNAUGHEY. Which is going to be very soon. In that city, which is going to be very soon.

Senator PURTELL. You take each city, that particular city; is that right, instead of the whole picture?

Mr. McCONNAUGHEY. Yes.

Senator SMATHERS. That is what I am trying to get. In other words, we should, in our mind, distinguish what you are talking about, this overall crash program, from a deintermixture in a particular area.

Mr. McCONNAUGHEY. Yes, sir.

Senator SMATHERS. And where you have under consideration deintermixture in a particular area, you will then hold up the construction permit until a determination is made as to whether or not that specific area should be all UHF or VHF?

Mr. McCONNAUGHEY. Yes; we have already done it, in Peoria, Ill., for example.

Senator SMATHERS. But this whole general program of making everything UHF, you are not going to hold up construction permits for VHF channels—

Mr. McCONNAUGHEY. No, no.

Senator SMATHERS. Until that matter has been decided?

Mr. McCONNAUGHEY. No, no, no, no.

Senator SMATHERS. I think we have maybe gotten a little bit crossed.

Mr. McCONNAUGHEY. We certainly are not. We are not putting any freeze on.

Senator SMATHERS. Until you decide, you are going ahead as you have been in the past.

Mr. McCONNAUGHEY. That is right, except in the individual places where we proposed deintermixture. We are making grants—for example, Peoria, we did a week ago: we made a grant to Mr. A, who was the preferred individual—no construction to begin until we decide whether Peoria should be, after this rulemaking upon which comments are to be filed by October 1 or September 10, I don't know, one of those two dates—September 10 is the date—

Senator SMATHERS. But the only question to be yet decided in that particular area is whether or not that specific area, limited as it is, is to be deintermixed; is that right? All UHF—

Mr. McCONNAUGHEY. That is right. In other words, in that case whether you move the V to Davenport.

Senator SMATHERS. Is that the same situation that obtains in Hartford, Conn.?

Mr. McCONNAUGHEY. Exactly.

Senator PURTELL. But isn't this all part of a picture, Mr. Chairman, that you hope will fit into this ultimate by making all of large areas, such as east of the Mississippi, ultra?

Mr. McCONNAUGHEY. No; I couldn't say that it is part of the whole picture. Well, part of it from the standpoint that it is an encouragement to the UHF, to the development of UHF. I think to me it comes down to this: As I said, we have areas in this country where UHF is doing an excellent job, and the public is not suffering from any stand-

point. If we can have enough areas, added areas, that can have the UHF—let's take your section up there at Hartford for a minute. I believe that there are applications for NBC and CBS to own the UHF stations up there.

Senator PURTELL. I have read that.

Mr. McCONNAUGHEY. All right. The people in that area—if that comes about, that they get the two UHF stations up there—will certainly not lack for fine programing; will they?

Senator PURTELL. Those that get it?

Mr. McCONNAUGHEY. Yes.

Senator PURTELL. That is right.

Mr. McCONNAUGHEY. That is right.

Senator PURTELL. Those that get it.

Mr. McCONNAUGHEY. I mean the people that will get excellent programing.

So I don't think—I think this: That when the rulemaking answers come in, the Federal Communications—I will go back to my original statement—is not going to let any of the public suffer from want of service. That is the only thing that you, sir, are actually interested in.

Senator PURTELL. That is right. But that takes in all of the public in the area served.

Mr. McCONNAUGHEY. That is right; that is right, that they have adequate service.

Senator PURTELL. You wouldn't tie in, however, would you, Mr. Chairman—I am sure that you wouldn't, at least I have every reason to believe, from your statements and from your actions, that you wouldn't—tie in the idea that simply because there were 2 ultrahigh's up there that carried the 2 big networks that that was sufficient for the people there?

Mr. McCONNAUGHEY. No, no.

Senator PURTELL. There may well be a public service to be rendered by either an ultra or a V that is necessary at the local level for the people.

Mr. McCONNAUGHEY. As a matter of fact, I think it is very essential to the people, I think very essential to the people.

Senator PURTELL. The reason I mention that it because you did mention about the reports and—and you would know, I don't—that NBC and CBS wish to, or indicated a desire to, or have contracted to buy stations up there.

Mr. McCONNAUGHEY. They have contracted to buy them.

Senator PURTELL. All right. If they have contracted to buy those stations, then certainly the fact that those two stations up there, which are ultrahigh and, therefore, could give NBC and CBS program would not be a determining factor in what else should go in there.

Mr. McCONNAUGHEY. Oh, no, I should say not.

Senator PURTELL. I thought we ought to clear it up because of your reply.

Mr. McCONNAUGHEY. You are right; I say you are right.

Senator PURTELL. Is it a correct statement to say that the Commission intends to proceed, under their present rules, in granting applications and starting television stations, as they have in the past, until

such time—we don't know when it will be, but in the indefinite future—a final determination has been made with respect to this whole program of deintermixture throughout the country. Is that a correct statement?

Mr. McCONNAUGHEY. That is correct, Senator.

Mr. Cox. Isn't it true, Mr. McConnaughey, wherever you have proposed deletion of a VHF channel in a selected area of deintermixture you would substitute a UHF channel, so that an additional station to those already on the air in the community would be available for service to the public?

Mr. McCONNAUGHEY. My answer to that is, "One or more."

Mr. Cox. Due to the greater number of the UHF stations, if it later developed there was a possibility of these communities supporting a fourth or fifth station, there is more room for expansion in the UHF than in VHF?

Mr. McCONNAUGHEY. That is correct, sir.

Senator PURTELL. Along that line, I didn't think we were going to get into so extensive a questioning here. We have a meeting at 2:30 this afternoon where a report will be distributed. I have some questions that have not been answered—not because the answers have been denied, but because I haven't sought them.

Since we want to preserve ultra high, what about the fellows that are suffering—ultra-high operations—surrounding areas such as New York, where there are all V's? We have a situation in Bridgeport—I am mentioning it as an example; I don't think, however, what happens to any one particular area shouldn't enter, and I am sure doesn't enter into either the consideration of your committee or ours. But here we have places where ultra's are not able to survive because V's are covering the area in which they are established. What are we doing to help those fellows? There is a question where your U's are apparently dying on the vine, and we are talking about trying to bolster the U's up.

Mr. McCONNAUGHEY. That is right; that is right. Well, I think you have to go back. They went into business. This is an open, free competitive enterprise business. This isn't a regulated public utility. The Commission doesn't guarantee—and the Congress doesn't guarantee—anybody going into business that they are going to make money. I can own a gas station here, you can own one over here; you make money and I don't. But, nothing can be done to guarantee the man at Bridgeport that he is going to make money. We can't do that.

Senator PURTELL. I am sorry that we have selected—I had to select it to indicate the area that I was talking about. But I want to say this, that we are talking now about competitive—in your deliberations you used the word "competitive" situation. And here is a competitive situation.

Mr. McCONNAUGHEY. That is the reason for the long-range program. If they had comparable facilities at Bridgeport—let's not take an individual, but let's take Bridgeport—if you had the UHF, all UHF, if it was all UHF, we will say, then it appears to us that places like Bridgeport and like Mansfield, Ohio, and like any number of places, could have their own television stations where the people in those communities would have their own local programing, which is the most desirable thing in the world to me.

Senator PURTELL. What I am trying to point out, Mr. Chairman, is that your efforts to preserve ultra high have been evidenced by your desire, for instance, to make certain areas all ultra high.

Now, we are talking about preserving ultra high stations. Well, here are groups of stations that are surrounding the larger cities where there are all V's that are not being preserved, apparently, because they are going to die. I would think they can't stand this strain long, from what I have heard—financial strain.

Mr. McCONAUGHEY. There is nothing anybody can do to preserve them, except eventually go to UHF.

Mr. Cox. Would the Commission—during this interim period when it is considering these allocations changes pending decision whether they can go to all UHF—consider a proposal from such an overshadowed area—Bridgeport or Akron, Ohio, or any other area with UHF stations operating under the shadow of multiple V services in a larger center—would they consider an application from the operator of that station for the dropping-in of a low-powered V, which at least would get him away from the problem of set incompatibility and would permit him to provide a local service if he can provide programs which will attract viewers?

Mr. McCONAUGHEY. No, I don't think so. You get into that and you meet yourself coming home. You start squeezing in and you get beyond me there, beyond you and me both. You get into this engineering proposition. You get into squeeze-ins, and you start squeezing in a low-powered V here, squeezing out a U over here. You are just running around in a set circle. I don't think the Commission has come to a place yet where they look with very much favor upon that type of an operation. I am not saying they wouldn't do it, if it is feasible engineeringwise, if it can be done. But I say that it presents a lot of problems, Mr. Cox.

Mr. Cox. I was asking about this restricted largely to this area of a smaller community overshadowed by VHF service from a larger community. Now, since you are not proposing to deintermix New York at this stage—you are waiting to see whether this will ever be feasible—for the next few years the area of western Connecticut is going to be blanketed with VHF signals, and that has led to a condition where the operator in Bridgeport cannot get people to convert their sets because they have ample program choices.

Now my question was whether, simply in those situations, if the operator came in with an engineering report which said that he could place a V channel in here, at such and such a power and antenna height, and it would not cause interference with existing VHF stations, whether that might be considered as an interim measure while the Commission is trying to work out the shift to all UHF.

Mr. McCONAUGHEY. I think it certainly would be considered.

Senator PURTELL. I think this is important. We are talking about western Connecticut. I want to make it clear that these conditions, I don't think, are peculiar to any one area of the country. I think they are all over the country and we have simply cited these, or they have been cited as illustrative of a situation. Now, what they are trying to find out is not only what might happen to western Connecticut or eastern Connecticut, but we are trying to find out what will happen to all like areas in the country.

Mr. Cox. What happens at Everett, Wash., for example.

Senator PURTELL. This situation isn't peculiar at all to the area around New York, by all means.

Mr. McCONNAUGHEY. It is much more accentuated because of seven stations in New York.

Senator PURTELL. That is correct. But it is also true in many other large areas where you have only V's.

Mr. McCONNAUGHEY. That is correct.

Senator SMATHERS. Does the Commission have any policy or precedent, we might say, where, for example, a new drop-in channel is found, or one has been gotten maybe by the engineer of some UHF man, does the Commission, as a precedent, give more weight to that UHF application for the new channel, than they do just new people who come in, or do they not? Or haven't you made a determination on that? I am not trying to get anything on the record—

[Laughter.]

Mr. McCONNAUGHEY. Let me try to answer it this way: His experience is going to be of substantial benefit to him.

Senator SMATHERS. That satisfies me. Let's move on, Mr. Cox.

Mr. Cox. You indicated, Mr. McConnaughey, that you thought that action would be taken quite soon in these deintermixture proceedings—that is, in other words, you have called for comments by September 10 and reply comments by September 25. Could you give us any estimate as to the time thereafter when decisions might be reached in this first group, at least?

Mr. McCONNAUGHEY. No. All I can say is just we are going to expedite it just as fast as we possible can.

Mr. Cox. Do you feel that if this interim program is to be successful that there is going to have to be a fairly substantial number of markets which are deintermixed, and not just a token few?

Mr. McCONNAUGHEY. Well, as many as the Commission thinks is feasible and possible.

Mr. Cox. Now in this deintermixture proceeding, is this a correct statement: Let's take Peoria, where there are two UHF stations, I believe, on the air, and a V allocated which you recently granted, but stayed the construction of the station. Now, if it is finally decided to deintermix Peoria, and to place the third U in there instead of a V, this will be after the Commission has determined that this action is not going to result in depriving anyone of service—of at least a first television service.

Mr. McCONNAUGHEY. That is certainly true.

Mr. Cox. Now, do you feel, generally, that where a VHF channel is deleted from one community, it should be assigned to another community, having a predominantly VHF service, where it can be fitted in with the Commission's existing engineering standards?

Mr. McCONNAUGHEY. Basically I feel that; yes, sir. I don't think it should go to waste, in a predominantly V area.

Mr. Cox. So that it provides greater possibilities for competition both in any all-U area and in an area where the V can be fitted in?

Mr. McCONNAUGHEY. Yes, sir.

Senator PURTELL. Let's fit this into an overall pattern. We are hoping to get ultimately—with the crash program successful, assuming it will be, and I am not ready to assume that—but just for the sake of pointing up what I wish to say, you have got these areas that you have

established only V's by transferring V's from one area to another, making all ultras and all V's. Aren't we again making it even more difficult to become all ultra, if and when this crash program proves successful? Because we are building up these islands, all over, of V stations, in which only V—

Mr. McCONNAUGHEY. No, no.

Senator PURTELL. You don't mind if I finish, please?

Mr. McCONNAUGHEY. I am awfully sorry.

Senator PURTELL. Where we build up only V stations and the receivers necessary therein are only V's. Take this city right here, we only get V's. Now, as an example, I live in Hartford, as you already know, and we up there went from very to ultra, so I had to change. I had to buy an ultra set. I moved my V set down here. Why? Because it would have been foolish for me to invest in an ultra high V set down here when I could use, for every purpose available to me on television, a V receiver. So I have used it.

Now we are building up these areas, therefore, in which people only have V's and in which your senders will only be V stations. And aren't we multiplying the problems that you are going to be confronted with? We are in fact preventing, to that extent, intermixture.

Mr. McCONNAUGHEY. I feel, Senator, when you speak of moving a V—we will say from Peoria, for example, where there are two U's on the air—if we would move that V assignment to a place where there was already all V's, everybody has the V. I don't personally think that you expand anything of any description, because you put another V in where everybody has VHF already. And in the Peoria area most of the people have UHF now, and you are just giving them another UHF service.

Senator PURTELL. What we are doing, as a matter of fact, is not encouraging the use, in those areas where you only have V, of ultra high receivers.

Mr. McCONNAUGHEY. Oh, no.

Senator PURTELL. That is what we are talking about, the big plan—trying to get everybody ready to go through this transition period; isn't it?

Mr. McCONNAUGHEY. Well, that is much better, it seems to me, than letting the UHF die. It is simple—if we don't do what we propose to do here, it is going to die.

Senator PURTELL. That is correct. But I think we have to determine whether or not in these areas in which we are talking about now, where there would be deaths of ultra—

Mr. McCONNAUGHEY. Where there would be ultra deaths?

Senator PURTELL. Yes; where they would die.

Mr. McCONNAUGHEY. That is sure.

Senator PURTELL. Just to make it ultra, because it is a nice thing to be ultra, or a V, because it is a nice thing, is, I am sure, not the way you intend to operate.

Mr. McCONNAUGHEY. You are correct.

Senator PURTELL. All right. So it is a question whether or not—there are these economic factors that apparently you are now taking into a greater extent, I would assume, than was originally—I would assume all those are weighed; are they not?

Mr. McCONNAUGHEY. They have to be.

Senator PURTELL. In the determination of whether deintermixture will take place?

Mr. McCONNAUGHEY. They have to be.

Senator PURTELL. All right.

Mr. Cox. Wouldn't one other way of improving this competitive situation during this interim period be to grant as promptly as possible, the long-contested VHF channels in such major markets as Boston, St. Louis, Pittsburgh—places of that kind?

Mr. McCONNAUGHEY. Yes.

Mr. Cox. Are most of those now at a point where they are awaiting decisions, or are they, some of them, still prior to argument?

Mr. McCONNAUGHEY. There are a few of them left. We have disposed of most of them.

I have never known, and I want to make this statement on the record before this committee, to whom we are primarily and basically responsible, before whom we are very happy to appear:

We have had hundreds of hours eaten up, of our staff people, during this session of Congress, by committees up here on the Hill. I am not talking about this committee, before whom we are happy to appear and whom we have a responsibility to. I point that out because it has taken the time—and when it is all computed it is going to be thousands of hours—of our important staff people who have been working day and night on getting stuff ready to get up here, and conferences, and testimony, and evidence, when they should have been working on getting out important business of this Commission. I just found that the head of my Opinions and Reviews staff, just the other night, the other day, has been working until 3 or 4 o'clock in the morning getting out these cases that you are talking about, and he is just about ready to have a nervous breakdown; and what applies to him applies to this General Counsel's staff, and right straight down the line. And if any outfit has ever worked—overworked—the staff of this Commission has done a magnificent job under very trying circumstances.

Those few cases that are left will be out of the way, I am satisfied, by the 1st of January, practically all of them. We will have nothing left.

Senator SMATHERS. Right on that point, Mr. Chairman, I think it might be advisable to have you submit for the record how much time you people, as a Commission, have spent up here on the Hill before the Congress. And I think it might be informative for the record to have an estimate, if you can get it, as to how much time your staff people have had to put in getting ready for appearances before the Congress.

Now I know that, of course, you recognize that this particular agency, as other agencies, is set up as an arm of the Congress.

Mr. McCONNAUGHEY. I sure appreciate that.

Senator SMATHERS. But we have given you a job to do, and I completely agree with you that it is a little bit nonsensical, for instance, to spend so much of your time up here that you cannot do the job. It may be that we should provide for you some more assistants, which could be done. I think if that is the case, we can do it.

As you know, however, there have been some cases in certain areas which have been pending quite a long time. They are difficult cases. As Senator Purtell has so well stated, there is probably no other agency in the Government today which has such a complex and difficult set of problems confronting them as yourself. And we appreciate that.

But if you put this matter, to support your statement that you have just made, the matter of hours that you have spent on the Hill—which again will take a little time of somebody's, but we are getting ready to go out of session—it would be very helpful.

Mr. McCONNAUGHEY. I would be happy to do that.

Senator PURTELL. Somebody told me that you are having to appear before 10 or 11 committees, is that correct? Is that a fact?

Mr. McCONNAUGHEY. There have been quite a few.

Senator SMATHERS. There might be something basically wrong in our procedure here. After all, the Interstate and Foreign Commerce Committee is supposed to have primary jurisdiction over this, and yet other committees have the right, and frequently they do want, to hear these people and yet they are pulling you and tugging you back and forth and you have to go. Now I think it would be interesting if you will get the statistical information as to how much time you have spent, what committees you appeared before this year. I think it might give us some insight where we might, in some effects, change our rules—where we could have joint committee hearings and things like that, saving everybody's time. So support your statement with some statistics and it would be helpful.

Senator PURTELL. As a matter of fact you spoke about your staff being on the verge of a nervous breakdown—I sometimes wonder why you fellows aren't on the verge.

Senator SMATHERS. In particular, what would be of interest to us is how much duplication was there. In other words, the testimony that you gave to us, was that exactly or almost the same as the testimony you gave to another committee? If it was, we might be able to work out a system to save everybody's time.

Mr. McCONNAUGHEY. I would be very happy to do that, sir. We are primarily responsible, I feel, to the Senate and House Committees on Interstate and Foreign Commerce. We are an arm of the Congress—have never had any other feeling. And I did not mean to say anything disrespectful about Congress. But it has been rather time-consuming.

Senator SMATHERS. We accept your statement as completely respectful and very informative, and it may be that we can work in a procedure which will actually let both of us do a better job. If you will get that information, it could be helpful.¹

Mr. McCONNAUGHEY. Thank you, sir.

Mr. Cox. In your report and order of June 25 you set forth some new propagation data; do you not?

Mr. McCONNAUGHEY. Yes.

Mr. Cox. Does this recognize an expanded grade B service? That is, does this now recognize a somewhat increased coverage of television stations, based on experience since the sixth report and order?

Mr. McCONNAUGHEY. Yes; it does, Mr. Cox.

Mr. Cox. Does this report—at least in connection with the pending rulemaking proceedings—require the filing of maps of computed coverage on this new basis, and on an interference-free basis?

Mr. McCONNAUGHEY. That is correct.

Mr. Cox. As I understand it, however, you require them to show only cochannel, and not adjacent channel, interference.

¹ This information was furnished by letter dated August 30, 1956, and is printed at the conclusion of the Commission's testimony, on p. 978.

Mr. McCONNAUGHEY. That is right.

Mr. Cox. The committee heard some testimony from a witness a month or so ago who was suggesting the desirability, as a general practice, of requiring the filing of maps showing completely interference-free coverage, based on such more realistic standards. Would you feel that this would be a good general policy?

Mr. McCONNAUGHEY. I would like for Mr. Cowperthwait, who is an expert in that matter, to answer that question.

Mr. COWPERTHWAIT. There are some very complicated problems associated with coverage. Actually we should go out in the field and measure, but that is almost impossible. And as a result we thought we would set up some standards which are not accurate in any particular case, but they would serve as a comparative basis, so that in any particular area we could compare the various stations in the area—try to determine what the white areas were with relation to other areas. For what it is worth, that is what we tried to do in this report.

Mr. Cox. Is it possible, however—again without measuring it, but just on these computations based on the standards—to determine on an average basis what would be the probable areas of cochannel and adjacent-channel interference in any particular arrangement of stations?

Mr. COWPERTHWAIT. Yes, roughly.

Mr. Cox. Roughly, subject to correction based on actual field surveys?

Mr. COWPERTHWAIT. Yes, sir.

Mr. Cox. Would you feel it would be desirable, both for the purposes of the Commission and for the information of the public, if maps of that kind were required of various television stations?

Mr. COWPERTHWAIT. Yes. May I add that in this information that we are requesting we are including tables which will give us roughly the service area, taking into consideration interference.

Mr. Cox. Now, there are a number of matters, Mr. McConnaughey, that I think we might touch on that relate back to the earlier testimony of the Commission when you appeared before the committee in January and February.

You reported at that time on a rulemaking which was being conducted by the Commission directed toward relaxing rules as to private intercity relays. Could you report to the committee what the present status of that proceeding is?

Mr. McCONNAUGHEY. We have that matter under consideration in the rulemaking. We have been granting these licenses, as you probably know, to permit these intercity relay facilities to be put up, generally, where they couldn't afford to have the connections with the Telephone Co.

And, as I understand from the Bureau, they should have those up for finalization before us by the time we come back here at the end of August.

Mr. Cox. Fine. How about the matter, which you also touched on in your earlier testimony, of the charges for microwave and cable service of the Telephone Co.? I believe Mr. Cowgill indicated at that time that the staff was reviewing a third study of the Telephone Co.'s costs which had been prepared by the company, and that he thought there was some chance of a reasonably prompt conclusion of this proceeding which has been going on for some time.

Mr. McCONNAUGHEY. I just talked to Mr. Cowgill about it yesterday, and he tells me that these cost studies which have been made are about to the completion of analysis, and he feels that he can have those before the Commission by the time we come back.

Mr. Cox. Now, you also discussed the possible use of boosters to extend, initially, UHF service, and then, as I understand it, it was broadened to include VHF service, as well. The committee has noted, of course, that the Commission has completed its translator rulemaking proceeding, and has issued rules for authorizing a translator service in the top UHF bands.

Now, I believe, in that connection, there were some proposals filed in the form of comments, suggesting that the Commission likewise authorize VHF boosters and translators, and that in its decision the Commission did not dispose of those on the merits, but said that they would be taken care of in this pending booster proceeding. Now, could you report on the status of that proceeding?

Mr. McCONNAUGHEY. The staff tell me that they are working on that, and they will, within the next 30 to 60 days, be ready to report to the Commission.

Mr. Cox. Has the staff, in that proceeding, been considering whether it would be engineeringly possible to authorize a limited VHF booster and translator service on an interference-free basis?

Mr. McCONNAUGHEY. They say they are considering it. They say it is an extremely complicated area; that possibly in some certain places it can be done. But they are studying it, as I understand it.

Mr. Cox. As I understand it, of course, giving first attention to the translator proposal was, of course, because this permitted a completely interference-free service all by itself?

Mr. McCONNAUGHEY. That is right; that was not difficult, Mr. Cox.

Mr. Cox. I think, of course, in that connection that the reason, perhaps, for the continued consideration of these may arise from matters of cost. Now, as I recall it, the Commission indicated, when they appeared before the committee earlier in the year, that they have been advised by manufacturers that the cost of one of these translators would be approximately a thousand dollars. Now, isn't it correct that the price now being quoted by the manufacturers is in the range of \$2,500 to \$3,000 per channel for the translator equipment?

Mr. McCONNAUGHEY. Maybe Mr. Cowperthwait could answer that.

Mr. Cox. Yes.

Mr. COWPERTHWAIT. It all depends on how elaborate antennas are required. If the receiving antenna can be relatively simple—in other words, it has a relatively clear shot at the transmitting antenna—of course, the expense is not so great. Likewise, if the booster transmitting antenna can be a simple array, rather than a directive antenna, the costs are reduced.

I think that thousand dollars referred primarily to the transmitter itself. So that in depending upon the—

Mr. Cox. Well, I am talking now primarily about just the device which translates the received VHF signal to a high band U, which sends out this periodic signal required by your rules, which contains the automatic or remote control shutoff required by your rules; isn't that piece of equipment, in the cabinet which encloses it, quoted now on the market at \$2,750 by one manufacturer, at least?

Mr. COWPERTHWAIT. I have heard that figure. I have heard others that can do it for much less.

Mr. Cox. You have?

Mr. COWPERTHWAIT. Yes.

Mr. Cox. That would certainly be helpful, because it seems to me that this translator proposal, while very healthy and very satisfactory in a community of sufficient size, still may leave the smaller community, where the number of sets spread over a cost of this kind might present a problem. Wouldn't that be true?

Mr. COWPERTHWAIT. Yes.

Mr. Cox. Some of these areas where boosters have developed there is literally just a handful of houses.

Mr. COWPERTHWAIT. Of course if the booster is constructed on the same engineering principles as the translator, the cost would not be too greatly different.

Mr. Cox. In other words, the present relatively cheap boosters that they are using would, under no circumstances, even if you developed rules for an interference-free service, be satisfactory? That is, they would have to have more elaborate equipment which would then approach in cost the figure that is now being cited in connection with translators?

Mr. COWPERTHWAIT. That is correct.

Mr. Cox. You also discussed, Mr. McConnaughey, when you were here before, the use of the satellites as a means of extending service. Is it true that the stations which have been authorized to operate as satellites have been specifically authorized so to operate on a petition in which they asked that they be licensed to operate as satellites?

Mr. McCONNAUGHEY. I think that is right; yes.

Mr. Cox. Now, can a station which is licensed to be a regular program-originating station in practice enter into arrangements with other stations by which it becomes a satellite to the other stations, without the consent of the Commission?

Mr. BAKER. May I answer?

Mr. Cox. Yes, sir.

Mr. BAKER. Just briefly, and that is this: When a station is licensed, it initially makes proposals for programing which contain certain local programing originations. If, after it is licensed, it should decide not to live up to those promises, of course, it can do so without consulting the Commission. That might be at the risk, however, of not being renewed ultimately. Generally speaking, that would not take place. Generally they would come in, and at a specific time request permission so that they would not be risking having failed to live up to their promises.

Mr. Cox. I see. Now, does the Commission have any definition of what constitutes a satellite, in terms of percentage of programs repeated from another station, or anything of that kind?

Mr. BAKER. I don't think the Commission has a definition of it, as it termed a satellite. What it did was it allowed grants where people did not propose to make any local programing, and they called those satellites.

Mr. Cox. With, as I understand it from the Commission's testimony when they were here before, the hope that as these licenses were renewed, that they could phase into more and more of the local operation after the operation of the satellite had developed local circulation?

Mr. BAKER. That was contemplated.

Mr. COX. You indicated earlier that the Commission might take interim action on certain phases of the work of its Network Study Group if it was found possible. Have there been any situations in which the study group has developed information on which the Commission to date has taken any action?

Mr. McCONNAUGHEY. No, not as yet; no.

Mr. COX. You still expect to have the work of the study group completed next year?

Mr. McCONNAUGHEY. June 30, 1957.

Mr. COX. Has the study progressed to the point where, on any of its phases, the group is going to be holding open hearings with respect to its findings or its proposals?

Mr. McCONNAUGHEY. Where the Network Group is—

Mr. COX. Study group.

Mr. McCONNAUGHEY. Not to my knowledge.

Mr. COX. I believe when you were here before you indicated that at some stage in this proceeding there would be—in addition to the investigative type of proceedings that they were following—there would be public hearings at which there would be spread on the record material on any—at least on any contested issues.

Mr. McCONNAUGHEY. I think that that would be contemplated, yes. Nothing—no hearings have been set yet; no, sir.

Mr. COX. Nothing has been done?

Mr. McCONNAUGHEY. No, sir.

Mr. COX. You discussed when you were here, also, the policy of the Commission of continuing to renew outstanding construction permits for UHF stations, which either had never built or had been on the air and left the air.

Mr. McCONNAUGHEY. Yes, sir.

Mr. COX. As I recall it they expired yesterday. Has the Commission taken action on this matter?

Mr. McCONNAUGHEY. They have been renewed.

Mr. COX. They have been renewed. Now, the question was raised—

Senator PASTORE. On that very point, Mr. McConnaughey, we had an individual who testified here, I can't put my finger on it here—

Mr. COX. We have a letter submitted into the record on that.

Senator PASTORE. All right.

Mr. COX. The question was raised by one or more of the Senators when you were here last as to whether the Commission needed any legislation to help it with this allocations problem. Now aside from your indication a while ago that perhaps some help on the set problem might be needed—aside from that, does the Commission at this time have any suggestions for legislation which they think would be of help to them in dealing with the allocations situation?

Mr. McCONNAUGHEY. Not specific. I hope by the first—before the 1st of January that we can have some legislation prepared along that line.

Mr. COX. I think also Senator Magnuson earlier raised a similar question as to whether or not the Commission had any further suggestions, above and beyond the amendment of section 309 (c), with respect to procedural reforms which might expedite its work. Does the Commission have any such recommendations to make at this time?

Mr. McCONNAUGHEY. We will have some, sir, but I would prefer to make them when the Congress comes back in January.

Senator PASTORE. How has that change worked out thus far, Mr. Chairman?

Mr. McCONNAUGHEY. Not too well.

Senator PASTORE. Not too well?

Mr. McCONNAUGHEY. It has been successful in a number of cases, it is just a question of whether we went far enough.

Senator PASTORE. I see.

Mr. McCONNAUGHEY. I shouldn't have answered you, sir, the way I did.

Senator PASTORE. You can withdraw it.

Mr. McCONNAUGHEY. It has been of substantial help; I say it has been of substantial help. Maybe I have been a little bit disappointed because I felt it didn't go all the way.

Mr. Cox. I hesitate to ask this after your statement a moment ago about the obviously hard-pressed condition of your staff, but I wonder if it would be possible, before the date which was indicated earlier for the closing of the record, to have someone in the Broadcast Bureau prepare for the record a list of the various criteria which are considered by the Commission in comparative proceedings, and if there is any ranking of importance, a discussion of the way in which those criteria are applied?

Mr. McCONNAUGHEY. We would be very happy to do that, sir.

Mr. Cox. Now, in that connection, could you give some consideration to the question of whether or not some of these criteria are contradictory to each other? That is, in other words, you have, as I understand it, a criterion which emphasizes local ownership of the station, and on the other hand, of course, you have a criterion which emphasizes prior broadcast experience.

Mr. McCONNAUGHEY. Right.

Mr. Cox. Obviously you might, for instance, find that a multiple owner would have a very fine record of past experience, but then he would find that he is almost automatically ruled out if he is opposed by an applicant made up largely of local people. So if you could give some consideration to that—

Mr. McCONNAUGHEY. Be glad to do that.¹

Mr. Cox. Now then as you will recall, the committee heard testimony from Mr. Henry Walker, of Evansville, Ind., with regard to the proceeding in which he and certain others were the unsuccessful applicants for channel 7. At Senator Pastore's request, we wrote to you—but rather late, because you had it, until recently, on a motion for reconsideration—asking you to comment to the statements which he made at that time. The record should, of course, show that in the interval, while you were still considering this matter, Mr. Baker did supply us with some comments on this particular case.

Does the Commission have any further comments on the suggestion made by Mr. Walker that this case was the first one in which the ownership of AM stations was apparently, in his view, held to disqualify an applicant for a TV license?

Mr. McCONNAUGHEY. Mr. Cox, the ownership of the AM stations did not disqualify the man. That is something that the Commission,

¹ The information requested was submitted in a letter dated August 30, 1956, which is printed at the conclusion of the Commission's testimony, on p. 979.

as I understand it, always takes into consideration with reference to a concentration of mass media.

As I recall, he was the loser in that Evansville case, and he had AM stations, or FM, in Evansville, Terre Haute, and as I recall, in East St. Louis, Ill., which formed a small triangle. That did not disqualify him, but that was one of the considerations which the Commission considered, as it does in many cases. Whereas it was a factor that was balanced in favor of the people who got the grant. I think that is the best way that I can describe it.

Mr. Cox. Would it be accurate to say that, aside from this issue of diversification of media of mass communication, the Commission found the applicants balanced on other factors, so that this was perhaps decisive in the case?

Mr. McCONNAUGHEY. I think that it ended up that there was no preference awarded either party on the basis of seven different criteria; that preference was awarded to this individual, who is complaining, in local programing, but the differences there were not considered major; and that he had a slight preference on local residency of stockholders. Those were the two preferences that he had.

The individuals who got the award had three preferences. They had a clear preference in the criterion of integration of ownership with management—and that is very important because that is the people who are going to run the station. And I think we look at that very carefully. Another one, a second preference, was with respect to likelihood of effectuation of television proposals. The individuals that got the grant had that. The third was diversification of media of mass communication, the one he was complaining about.

Mr. Cox. Isn't it true that the importance of the criterion of integration of ownership with management is largely that it leads you to conclude that there is greater likelihood of the effectuation of proposals?

Mr. McCONNAUGHEY. I think that would be considered along with it, I don't know.

Mr. Cox. In other words, the reason you feel it is important that the people actually in day-to-day charge of this station also have an ownership interest, is that you feel that this makes it more likely that the representations they have made to the Commission as to programing, studio plans and so on, would be carried out?

Mr. McCONNAUGHEY. I think so.

Mr. Cox. So that, therefore, these other two preferences that were given to Evansville Television more or less merged—one leads to the other?

Mr. McCONNAUGHEY. I don't know whether the Commission felt that or not. I don't know.

Senator PASTORE. I would like to ask the question a lot more simply: The impression that this gentleman left with me—right or wrong, the impression definitely that he left was that this man who apparently was favored, or was on the verge of being favored, was more or less a professional applicant who had applied in several other localities before, been granted licenses, and then he sold his licenses. And then he came to this locality, where this man had already established, for a long time, radio facilities and was also an applicant; and that apparently this fellow who was a stranger to the locality was able to come in and be preferred by the Commission.

Now I thought that was rather a serious impression. I mean I like to give it to you straight, and I would like to get a straight answer. I mean it didn't sound too good the way it was presented. I am not saying what he said was exactly an accurate presentation of the facts, but that is the impression he left with us.

Here is a fellow that had already had licenses before; after he got these licenses he sold them; then he went to this locality and apparently he was in a preferred position. If a fellow could maintain that position, he could become a millionaire overnight. That is giving it to you straight. I am not asking you to give an answer now. But my goodness gracious, something ought to be cleared up on that.

Mr. McCONNAUGHEY. All I can say with reference to that case or any other case, and I can only speak for myself—

Senator PASTORE. Not any other case, that case; the impression was left on that case, Mr. Chairman. And I think the Commission owes it to itself, inasmuch as it was said publicly, to give a public explanation that it either is so or it isn't so. I am not asking you to do it today. But I think something ought to be there.

Mr. McCONNAUGHEY. We will be glad to write you a letter on the subject.

Senator PASTORE. All right, fine. I think we ought to put it in the record.¹

Mr. McCONNAUGHEY. Yes; I say I think you should. I want it in the record.

Mr. Cox. I think we can also incorporate Mr. Baker's letter of June 8, 1956, which discussed some of these items.

(The document referred to is as follows:)

FEDERAL COMMUNICATIONS COMMISSION,
Washington, D. C., June 8, 1956.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.

DEAR SENATOR MAGNUSON: Further reference is made to our correspondence concerning the Evansville case. In your May 22, 1956, letter you state that you did not receive a copy of the initial decision and the original Commission order. This material was transmitted to your office under separate cover. However, under the assumption that it may have been lost en route, I am sending that material attached to this letter. When the Commission hands down a decision on the petition for reconsideration a copy will be sent to you.

As you recognized when you previously requested my personal comments, under the separation of functions provisions of section 409 of the Communications Act, I was not able to make a presentation of any of this matter before the Commission nor was I able to consult with the Commission. Consequently the views expressed in this letter can only be termed my own personal views. With this caveat, I am submitting the following analysis.

You request my comments on the statement of Mr. Henry Walker, Jr., secretary-treasurer of On The Air, Inc., an unsuccessful applicant in the Evansville comparative proceeding at the May 15, 1956, television inquiry before your committee. This statement reads as follows:

"The Evansville case is the first decision in history in which the Commission has applied the diversification of ownership principle in denying an applicant a grant for a television station when the applicant owned radio stations only."

I have attached hereto a synopsis of the comparative conclusions of the Commission in this case. As the chart indicates, On The Air was awarded a preference on the basis of the local residency of its stockholders and a slight preference in regard to local programming. On the other hand, Evansville was awarded a clear preference in the criterion of integration of ownership with

¹ The Commission submitted its answer in a letter dated August 30, 1956, which is published at p. 971 below, immediately after the earlier letter from its General Counsel.

management, a narrow preference with respect to the likelihood of effectuating its proposals and a preference as to the diversification of the mediums of mass communications. All other relevant comparative factors were found to be substantially equal with neither party being granted preference.

As background for my analysis of the way in which the Commission selected the applicant in this case which it believed would better serve the public interest, it is necessary to note the case of *Johnston Broadcasting Company v. Federal Communications Commission* (85 U. S. App. D. C. 40, 175 F. 2d 251 (1949)). There the court of appeals said: "The Commission cannot ignore a material difference between two applicants and make findings in respect to selected characteristics only. Neither can it base its conclusion upon a selection from among its findings of differences and ignore all other findings. It must take into account all the characteristics which indicate differences and reach an overall relative determination upon an evaluation of all factors, conflicting in many cases." Diversification of the mediums of mass communications, on which Evansville TV was awarded a preference, was simply one of the many comparative factors considered by the Commission. This is not to say that a permit should be withheld from an applicant because it is otherwise engaged in the dissemination of the news. But where one applicant is free of association with existing mediums of communication and the other is not the Commission, in the interest of competition and consequent diversity, may be derelict if it does not weigh this factor, along with others, and award a preference to the deserving party on the basis of it. The court of appeals in *Scripps-Howard Radio, Inc. v. Federal Communications Commission* (see 4 R. R. 525) stated "in considering the public interest the Commission is well within the law when in choosing between two applicants it attaches significance to the fact that one in contrast to the other is dissociated from existing mediums of mass communication in the area affected." (See also *Plains Radio Broadcasting v. Federal Communications Commission*, 85 U. S. App. D. C. 48, 52, 175 F. 2d 359, 363 (1949), and *Stahlman v. Federal Communications Commission*, 75 U. S. App. D. C. 176, 126 F. 2d 124 (1942)).

Although diversification is an important factor, it is weighed along with all other considerations to determine which of the competing applicants, if awarded the construction permit, would better serve the public interest. Of course, being only one consideration, the diversification factor may be counterbalanced by other factors. (See *Alladin Radio and Television, Inc.*, 9 R. R. 1 (1953); *The Tampa Tribune Co.*, 9 R. R. 719 (1954)). In reference to Mr. Walker's statement, you have specifically requested:

"Can you tell me whether the Commission has ever before, in a comparative proceeding, held that a holder of an AM license should be penalized on that account, and that that factor should be controlling against such a licensee, all other things being equal? I am sure that you can advise me on this matter at this time without recourse to the members of the Commission."

Mr. Walker's statement on page 11, since it includes a number of conditions, may be fundamentally correct, but it presents an incomplete picture. Thus, in answering your question in this regard, I must point out that "all other things" were not found to be equal in the Evansville case. (See attached synopsis.) Ownership of radio stations has traditionally been a factor given weight in comparative proceedings for a construction permit for another radio or television station. Similarly, ownership of newspapers, other television stations, magazines, theaters, and, in fact, any medium of mass communication, would be taken into account by the Commission in comparing applicants. Ownership of the various mediums has been considered in a variety of combinations. Thus, it was inevitable that eventually a situation would arise that ownership of radio stations would be the significant factor which struck the balance in a television case.

Sometimes the ownership of radio stations has been counterbalanced by the ownership of other media of mass communication. (See *Radio Port Wayne, Inc.*, 9 R. R. 1221). There have been, of course, more comparative proceedings concerning applicants for radio stations than there have been for television stations, and in many cases where radio ownership was a factor to be weighed, because of countervailing considerations, grants were awarded and not denied.

In addition, radio ownership in a comparative proceeding may have two aspects. To the extent that it demonstrates a good record of broadcast experience and likelihood of future effectuation of program proposals, it is an advantage. To the extent that it demonstrates a concentration of control of the media of mass communication, it is adverse. It cannot be said that the Commission is "penalizing" an applicant for having engaged in a certain business, but rather that the Commission is obliged to weigh all the relevant factors flowing from

having been in that business, both advantageous and adverse. This is exactly what was done in the Evansville case.

I hope that this letter answers your questions fully; however, if you have any further problems in connection with this matter, do not hesitate to inquire.

Sincerely yours,

WARREN E. BAKER, *General Counsel.*

IN RE APPLICATIONS OF EVANSVILLE TELEVISION, INC., AND ON THE AIR, INC.,
EVANSVILLE, IND.

For Construction Permits for New Television Stations (Channel 7)
Evansville, Ind.

I. INITIAL DECISION

Looked toward a grant to Evansville TV.

II. FINAL DECISION OF THE COMMISSION

The Commission considered all factors relevant in a comparative proceeding and found both applicants legally, technically, and financially qualified to construct, own, and operate the proposed television station. The Commission also found that, on the basis of the proposed policies, program service, staffing, management, and operational proposals, a grant to either applicant would be in the public interest. Certain weight was given to On The Air for past radio experience which was found to be counterbalanced by similar considerations in favor of Evansville. After absolving Mr. Rex Schepp, a stockholder in Evansville TV, of certain lack of candor charges propounded by On The Air in disclosing certain information to the Commission, the Commission then turned to the points of differences urged by the parties as entitling them to substantial preferences.

III. NO PREFERENCES AWARDED EITHER PARTY ON BASIS OF

1. Network proposals
2. Local programs
3. Staff proposals
4. Studios and technical equipment
5. Previous broadcast experience
6. Diversification of business interests
7. Participation in civic activities

IV. PREFERENCE AWARDED TO ON THE AIR

1. Slight preference in local programing but differences not considered major in nature.
2. Local residency of stockholders.

V. PREFERENCE AWARDED TO EVANSVILLE TV

1. Clear preference in criterion of integration of ownership with management.
2. Narrow preference with respect to likelihood of effectuation of television proposals.
3. Diversification of media of mass communication.

VI. FACTS UNDERLYING THE DIVERSIFICATION PREFERENCE

Evansville TV presently holds no interest in any media, whereas On The Air is the licensee of 1 of 4 standard broadcast stations in East St. Louis, Ill. Another wholly owned subsidiary of Curtis Radiocasting Corp. is the licensee of 1 of 2 standard, broadcast stations in Terre Haute, Ind. On The Air also is the licensee of FM station WMLL, Evansville, and the other subsidiary of Curtis Radiocasting Corp. is the licensee of WBOW-FM. These facilities are concentrated in a relatively small triangular area.

(The further letter from the Commission on this matter is as follows:)

FEDERAL COMMUNICATIONS COMMISSION,
Washington, D. C., August 30, 1956.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.

DEAR SENATOR MAGNUSON: Reference is made to your letter of July 13, 1956, and to the earlier exchange of correspondence between Mr. Warren E. Baker, General Counsel of the Commission, and yourself, regarding the testimony of Mr. Henry B. Walker, of Evansville, Ind., before your committee on May 15, 1956.

You may recall that your letter of July 13 was sent only several days prior to my appearance before the committee on July 17, 1956. In that letter, you inquired whether I had any comments additional to those which Mr. Baker had expressed earlier regarding application of the diversification doctrine in the comparative proceeding for channel 7, Evansville, Ind. Following denial of the petition for rehearing in this case, the General Counsel's Office forwarded to the Commission the correspondence which had passed between you and Mr. Baker. I have examined these letters, and wish to state that I am completely in accord with the views expressed by Mr. Baker. My agreement with Mr. Baker's views was made clear in my testimony of July 17, 1956, at which time, you may recall, I also made my additional comments on the channel 7 proceeding.

However, there is one aspect of the Evansville proceeding which remains to be commented on. It appears that Mr. Walker's testimony on May 15, 1956, left Senator Pastore with the impression that one of the principals in the successful applicant was a professional applicant. At that time, Senator Pastore seemed to be concerned that the Commission's licensing processes might be abused by persons who were, in effect, nothing but professional applicant[s] for TV stations. (Transcript of the hearings, May 15, 1956, p. 3043. See also pp. 2998-3003; 3030-3040.) When I last appeared before this committee on the television hearings, Senator Pastore again expressed his concern on this matter, and also wondered whether it was possible for such a professional applicant, after disposition of prior interests, to move to another locale, apply for a license there, and then be preferred on a comparative basis because of his experience gained through previous operations (transcript of hearings, July 17, 1956, pp. 4815-4817). At that time, I assured Senator Pastore that the Commission would write this committee, explaining the facts underlying this aspect of the Evansville proceeding.

Apparently Senator Pastore, in asking this question of the Commission, had reference to Mr. Rex Shepp, president and director of Evansville Television, Inc., the successful applicant in the channel 7 hearings. After reexamining the record, it is my belief, as well as that of the other members of the Commission, that nothing therein justifies the assumption that Mr. Shepp was a professional applicant, interested mainly in short-term trading in television licenses.

Before reaching the facts of record supporting this conclusion, it would be helpful first to discuss certain Commission policies which have a bearing on this point. In the exercise of its licensing functions, the Commission has long had a policy against trafficking in licenses. Prior to articulation of this policy in its present form, the Commission had been called on a number of times to determine whether it would be in the public interest to grant an application of one who intended subsequently to assign an instrument of authorization to third persons on whose qualifications the Commission had been afforded no opportunity to pass. It early adopted a policy against refusing to grant applications to such "strawmen," *Replaye* (1 F. C. C. 256, 258); *Advertiser Publishing Company, Ltd.* (4 F. C. C. 498, 501), on the rationale that failure to disclose the identity of a real party in interest militated against the personal relationship between the Commission and its licensees, which was contemplated by the Communications Act. *Porter and Eversole* (4 F. C. C. 680, 682). See also *Hearst Radio, Inc.* (7 F. C. C. 292, 295).

The Commission's policy against trafficking in licenses, as such, received expression in later cases. One of the first of these cases where that policy was dis-

cussed is *Powel Crosley, Jr.* (6 Pike & Fischer, Radio Regulation 6, 26). There, it was decided that "[t]here could be little dispute that sound public policy will not permit us to countenance speculation in the public domain," and that, as had been stated earlier in certain letters to Congress, it was "the Commission's policy to disapprove of transfers which obviously represent the activities of a promoter or broker, who is simply acquiring licenses and trafficking in them."

Senator Pastore's concern over the possibility of abuse of the Commission's licensing processes by short-term traders in licenses raises, in our opinion, principally the question of whether Mr. Rex Shepp was guilty of trafficking in licenses.

At the outset, I should like first to correct a mistaken impression of the facts which Senator Pastore may unfortunately have received from Mr. Walker's testimony before this committee. From certain remarks made by Senator Pastore during the course of the May 15 hearings, it appears that he believed Mr. Shepp had previously procured three television grants prior to applying for the Evansville channel. (See transcript of hearings for May 15, 1956, pp. 3039-3040.) However this impression may have arisen, the facts are, of course, otherwise. For the record on which the Commission based its grant to Evansville Television, Inc., shows that two of the past licenses in which Mr. Shepp had an interest (but never wholly owned) were for radio facilities, and that Mr. Shepp's only interest in a television station prior to the instant grant was a derivative one, stemming from the fact that the broadcast station in which he last held an interest in turn owned stock in a television licensee.

The facts on this point appear in paragraphs 6 to 9, inclusive, of the Commission's decision. Although a copy of this decision has been sent to this committee previously, we have attached another copy to this letter, for your convenience in referring to these basic facts.

The facts show that from 1940 to 1947, Mr. Shepp was employed as the general manager of station WIRE, Indianapolis, Ind. Shortly before taking this position, during 1939, he had become associated as vice president and a 25-percent stockholder in North Jersey Broadcasting Co., an applicant for a radio station in Paterson, N. J. After a grant of North Jersey's application, Mr. Shepp assisted in supervising construction and initial operation of that licensee's station. In 1942, he disposed of his stock interest in North Jersey (decision, par. 6).

While still employed as the general manager of WIRE, in Indianapolis, Mr. Shepp, in 1944, organized and became president and a director of, and a 28-percent stockholder in Phoenix Broadcasting, Inc., which then purchased radio station KPHO, Phoenix, Ariz. In 1945, Mr. Shepp became the majority stockholder of this licensee by acquisition of additional stock. In 1947, he resigned his position as general manager of WIRE and moved to Phoenix to manage station KPHO, a position he held until 1950, when he disposed of his interest in Phoenix Broadcasting, Inc. His 51-percent interest in Phoenix Broadcasting was reduced in 1949 by the sale of unissued stock to third persons. In 1950, Mr. Shepp disposed of his interest in Phoenix Broadcasting (decision, pars. 7 and 9).

Prior to the disposition of his interest in Phoenix Broadcasting, Mr. Shepp acquired a derivative interest in television station KTNL (whose call letters were subsequently changed to KPHO-TV), Phoenix, Ariz., by reason of Phoenix Broadcasting's acquisition of a stock interest in Phoenix Television, Inc., the holder of a construction permit for station KTNL. The record shows that Phoenix Broadcasting acquired its stock interest in November of 1949, and since Mr. Shepp disposed of his interest in Phoenix Broadcasting on April 29, 1950, this would naturally mean his derivative interest in Phoenix Television was simultaneously terminated (decision, pars. 8 and 9).

In the judgment of the Commission, we do not believe that Mr. Shepp's acquisition of his prior broadcast interests and subsequent disposal of them involves the type of short-term profiteering in stations which is proscribed by our policy against trafficking in licenses. You will recall from the facts discussed previously that Mr. Shepp's first interest (in North Jersey Broadcasting Co.) amounted to only 25 percent, and that this interest was held from 1939 until 1942. The second broadcast interest which Mr. Shepp held, his interest in Phoenix Broadcasting, Inc., extended from 1944 through 1950. We do not believe that the holding of either of these interests was of such an unreasonably short duration as to justify the conclusion these interests were acquired on short-term considerations alone. With respect to Mr. Shepp's derivative interest in Phoenix Television, Inc. (which extended from November 16, 1949, the date on which Phoenix Broadcasting, Inc., subscribed to stock in Phoenix Television to April 29, 1950, the date on which Mr. Shepp sold his interest in Phoenix Broadcasting, Inc.), it is true, of course, that the holding period is relatively short

But considering the derivative nature of the interest held, and the fact that at the time Phoenix Broadcasting, Inc., acquired its interest in Phoenix Television, Inc., Mr. Shepp owned only 43.7 percent of Phoenix Broadcasting's stock, we do not feel that there is involved here the activities of a professional applicant.

I am sure that a moment's reflection on the basic problems involved in applying the policy against trafficking will convince you of this. What is needed essentially in applying this doctrine is a balancing of conflicting considerations. On the one hand, the Commission is naturally interested in seeing that its licensing processes are not made the vehicle for speculation in a resource which lies in the public domain; it is to this end that our policy against trafficking in licenses was developed. On the other hand, it is obviously equally in the public interest, in order to permit the free flow of risk capital into the broadcast industry, not to bar experienced station owners who have disposed of prior interests from reentering the broadcasting field by an overly rigid application of the policy against trafficking. It goes without saying, of course, that in every case, the balance which will ultimately be struck must rest on the facts and circumstances before us in any particular case. It is my feeling that the adjustment of the competing interests arrived at here is correct and rests on unimpeached record facts.

Senator Pastore also seemed to be concerned over the possibility of a professional applicant's moving to a new locale, after divestiture of prior interests, and subsequently, in a comparative proceeding, being accorded a preference on the basis of the past broadcast experience gained through operation of former stations.

Apropos of this problem, I think it is clear from the Commission's decision that Evansville Television, Inc., was not accorded a preference because of Mr. Shepp's past experience in radio and television. Paragraph 87 of the decision, which discusses the comparative aspects of the applicants' past broadcast experience, shows the Commission found that On the Air, Inc. (the applicant in which Mr. Walker had an interest), and Evansville Television, Inc., were equally balanced on this factor. The Commission adhered to this position in ruling on the petition for rehearing filed by On the Air, Inc. (A copy of the memorandum opinion and order disposing of the petition for rehearing has already been sent to this committee.)

I trust that I have answered the questions asked by Senator Pastore. However, in the event you have any further questions you may wish to ask on these problems, please do not hesitate to let me know.

Sincerely yours,

GEORGE C. MCCONNAUGHEY, *Chairman.*

Mr. Cox. Is it a fair statement with regard to that letter, Mr. Baker, that although this has been considered in other cases, perhaps, that it is accurate to say that this was the first case in which a ruling on this diversification criterion was made adverse to one party solely on the grounds of the ownership of AM licenses, and not upon a combination of radio and newspapers, and usually centering down on the very community in which the television license is being sought?

Mr. BAKER. I think my letter speaks for itself in that area. That is with respect to a television case this is the first case in which radio ownership only has been a controlling factor, adverse to the individual. In many instances, however, it has been weighed and has merely been offset by other things.

Mr. Cox. Yes. In other words, again, isn't this one of these situations where you get a slight conflict in your criteria? That is, you are interested in prior broadcast experience and in an area where television stations are coming into existence for the first time, the only people who can qualify are owners of radio stations; and that you now have working against that a criterion that says if you do find a man who has divested himself of all prior broadcast commitments, he comes in with the benefit of the experience and can assert a preference because he has no present holding?

Mr. BAKER. Yes. I can think of one other case, for example, in Tampa, in which one of the exhibits—one of the principal stockholders in the application—contributed broadcasting experience to the successful applicant. But because he had divested himself of his radio facilities, or was proposing to divest himself, they were preferred. Now, it so happened on the other side of the case that the other applicant happened to have newspaper ownerships in addition. But I mean, but for that you would have had a rather similar situation. What I am saying is that this is a factor which the courts have held the Commission must consider. Any time there is any factor which must be weighed, it is conceivable that at sometime that particular factor will be the one which you will say is the controlling one, if everything else balances out. I mean it just stands to reason, you either must weigh it or you don't. If you weigh it, it ultimately, in some case, is going to come up to be the one which swings the balance.

Mr. Cox. All right. With reference to the matter of subscription television, that is another proceeding which the Commission has had under consideration. Is there anything to report with respect to the status of that?

Mr. McCONNAUGHEY. I think I can answer that very quickly, by stating we have been devoting our time on this allocation matter—practically all the staff, day and night, and I mean night, too—and we have not gotten any further on subscription television.

Mr. Cox. I think, of course, the committee indicated they wanted the allocations matter treated with priority.

Mr. McCONNAUGHEY. That is what your committee told us, and what we have tried to do.

Mr. Cox. Am I correct in my understanding that while you have been, therefore, waiting to give further consideration to this issue, that petitions have been filed with the Commission for experimental use of a subscription service in connection with UHF stations now off the air, and that the Commission has denied those, almost at the outset, on the ground that they are premature; is that correct?

Mr. McCONNAUGHEY. That is correct, Mr. Cox.

Mr. Cox. In other words, the Commission is of the opinion that not even experimental use of subscription television should be authorized until it has reached its final conclusion on the general soundness of the proposals that have been made?

Mr. McCONNAUGHEY. I can only answer for myself in that regard. Since this matter is before us, I feel that possibly along the line, that we should, personally speaking, consider permitting experimental subscription television operation someplace. I say that is just my own thinking, offhand. I haven't studied it too much. I think we possibly should permit an experimental operation of subscription television. And I am not going to be tied to that, either.

Mr. Cox. Now, it has, I suspect, been quite clear, both in your appearances before this committee and in your more recent appearances before certain of the House committees, that there is a good deal of concern over the question of the division of responsibility between the Commission and the Antitrust Division of the Department of Justice with respect to antitrust matters, in terms of primary jurisdiction and concurrent jurisdiction with respect to possible violations of the antitrust laws. You will recall that the committee wrote to

the Commission and to the Department of Justice asking for comments upon testimony of Mr. Moore regarding his opinions as to the validity of certain network practices. The replies of both agencies were put into the record, and indicate, still, a feeling on the part of each that perhaps this is something that the other one should be looking into.

I think since that time the committee has again written to each of the agencies urging renewed efforts to try to mark out the divisions of responsibility. Is the Commission presently pursuing any course of discussion with the Department trying to achieve that end? Maybe Mr. Baker can answer that.

Mr. McCONNAUGHEY. General Counsel can answer that.

Mr. BAKER. I can answer that, in this sense: That, as you know, Senator Magnuson wrote us a letter and we are in the process of replying to that. That reply is just about ready, but because of the fact that it only represents my viewpoint and has not yet been coordinated with the Chairman and the Commissioners, I can't tell you whether that is actually the view. I expect that it will be in your hands in the very near future.

Mr. Cox. We will have it then for the record. Thank you.¹

Now, turning to one matter that is perhaps new to our deliberations. Since you appeared here last, Senator Bricker has submitted a proposal—I don't know whether the bill has actually been introduced or not—with respect to a change in the Commission's multiple-ownership rule. Now, is there pending now before the Commission any rule-making proceeding in which such changes are being considered?

Mr. McCONNAUGHEY. No, sir.

Mr. Cox. Has the Commission given consideration to the questions posed by such a suggestion?

Mr. McCONNAUGHEY. Only to this extent, Mr. Cox: Nothing other than, I think it is—since the Supreme Court has sustained the Commission's rulemaking power with reference to multiple-ownership—that I think it is the feeling of the Commission that any changes that would be made should be made by the Commission rather than by congressional action. If any changes should be contemplated, it should be by the Commission rather than by congressional action.

Mr. Cox. So the Commission would then give thought to whether this was desirable, and if so would initiate a rulemaking proceeding?

Mr. McCONNAUGHEY. I think so. The reason I can say that is I think the Commission is much more flexible—can make itself more flexible as to changing conditions—than you can by enacting a statute and then trying to repeal it if conditions change too fast.

Mr. Cox. Is it correct to say that the argument in support of some such shift from a fixed number to a percentage of population is based on the feeling that one man may own 7 stations and the other man may own 7 stations, and yet they are far different in terms of their coverage, in terms of their impact and importance?

Mr. McCONNAUGHEY. That is right. It is a matter that I think the Commission is going to be cognizant of, and it involves a lot of problems. When you speak of percentages you have to be very careful about getting a concentration. You might have 25 percent, and that might pretty well control 2 or 3 States. I think you have to consider what you would have in individual States, in individual territories.

¹ This letter is published in the volume on Network Practices.

I mean there are a lot of problems. That is all I am trying to point out.

Mr. Cox. Isn't it possible that while you might be achieving an equalization between the position of a multiple owner of smaller stations and the more fortunate, perhaps, owner of larger stations, that this whole thing would contribute, however, to an increased concentration of ownership in the entire broadcast field?

Mr. McCONNAUGHEY. I think that is correct. And that might be good or it might be bad; I don't know.

Mr. Cox. I believe you told the Celler committee recently that you had on the average of about 30 transfers of control per month in both radio and television.

Mr. McCONNAUGHEY. I think that is about what they run. That is radio and television.

Mr. Cox. Now, of course—

Mr. McCONNAUGHEY. There aren't many in television; most all of them are in radio.

Mr. Cox. I recognize in many instances there is a shift of stock ownership, not a real shift in the individuals concerned.

Mr. McCONNAUGHEY. That is right.

Mr. Cox. But isn't it true where there is an outright sale that, generally speaking, these have been moving, not from the hands of one single owner into another single owner, but from a single owner into the hands of multiple owners?

Mr. McCONNAUGHEY. I don't know what the general rule is, but there have been quite a number of them that that has been the case.

Mr. Cox. Now, in connection with furnishing us with these criteria used in comparative cases, can you also furnish us with the criteria, if any, which are used in connection with passing upon the application for a transfer?

Mr. McCONNAUGHEY. Criteria?

Mr. Cox. Yes. In other words, you have a question of possible duopoly; do you not?

Mr. McCONNAUGHEY. Yes, yes, yes. We will be very happy to.¹

Mr. Cox. Isn't it true, though, that at this point you apply a completely different set of criteria than you applied when the original grant was made?

Mr. McCONNAUGHEY. Yes; that is because of the congressional act, section 319 (b), or 310 (b), maybe.

Mr. Cox. 310 (b)?

Mr. McCONNAUGHEY. Yes.

Mr. Cox. What is the operation of that, Mr. Baker?

Mr. BAKER. Just read the last sentence of it, and it answers it, Mr. Cox. It speaks for itself.

Mr. Cox. You are simply permitted to determine the legal, technical, and financial qualification of the proposed transferee?

Mr. BAKER. Let me read for the record that language.

Mr. Cox. All right.

Mr. BAKER. And this relates to applications for transfer of construction permits, or transfer. It says:

Any such application shall be disposed of as if the proposed transferee or assignee were making application under section 308 for the permit or license in

¹ The Commission later advised the committee staff, however, that it had nothing to add to its testimony given at this time.

question, but in acting thereon the Commission may not consider whether the public interest, convenience, and necessity might be served by the transfer, assignment, or disposal of the permit or license to a person other than the proposed transferee or assignee.

That is a specific prohibition in the law. Therefore, that means that you must consider it only on whether the particular applicant meets the minimum qualifications of meeting the public interest. You may not say it would be better for someone else to own it?

Mr. COX. I take it, though, that the Commission would still be permitted, even under that language, if it felt that there were others—or that the public interest would be better served, if this particular transferee was not permitted to operate the station, it can simply deny the transfer and then permit the transferor to seek another purchaser and then pass upon the application for that transfer? In other words, at this point you simply consider whether or not you will approve the transfer to this individual who has reached an agreement with the present owner?

Mr. BAKER. The first part of your statement, I don't think the legislative history of this particular amendment would bear out. That is, I don't think you can take into consideration the abstract that someone else might be better and might apply.

Senator PASTORE. That is right. In other words, according to the law all you have to consider is the qualification of that transferee. There may be somebody better qualified, but that isn't the question.

Mr. BAKER. That is right. That is what the Congress decided in 1952.

Mr. COX. I think that when you were here before the chairman indicated that he might like to have you comment upon the problem of political time. To this point, no separate hearings have been held on this. Does the Commission have any comments to make in terms either of problems which it now faces, or recommendations for changes of section 315, which it feels might be desirable?

Mr. McCONAUGHEY. General counsel would be glad to expound on that subject.

Mr. BAKER. I can only state the Commission's position in this sense. The Commission has commented on half a dozen bills with respect to section 315, and I don't think that I could in any short statement improve on the comments. They more or less covered the situation.

Mr. COX. These will be part of the records in the hearings held on the House side?

Mr. BAKER. And in the Senate. We have commented in both places.

Senator PASTORE. Any further testimony on the part of any other member of the Commission? We are very delighted to have you here. We will welcome your comments or observations if you desire to make them.

Off the record.

(Discussion off the record.)

Senator PASTORE. Mr. Lee?

Mr. LEE. Off the record.

(Discussion off the record.)

Senator PASTORE. Very well, we will adjourn until tomorrow morning at 10 o'clock.

(Whereupon, at 12:10 p. m., the committee adjourned.)

(Matter referred to earlier as being printed at the conclusion of the Commission's testimony is as follows:)

FEDERAL COMMUNICATIONS COMMISSION,
Washington, D. C., August 30, 1956.

Hon. WARREN G. MAGNUSON,
Chairman, Senate Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.

DEAR SENATOR MAGNUSON: In the Commission's July 17, 1956, appearance before your committee's television inquiry I was asked to furnish for the committee approximate figures on the amount of time Federal Communications Commission personnel had spent, during the 2d session of the 84th Congress, on congressional hearings, giving special attention to any duplication of work.

Comparatively little duplication was involved in the hearings on specific legislative proposals. However, we did find considerable duplication in the preparation, attendance, and followup involved in congressional investigative hearings. Three of the investigatory bodies before whom the Commission was asked to appear and/or furnish extensive information were, the Small Business Subcommittee of the House Government Operations Committee, the Anti-Monopoly Subcommittee of the House Committee on the Judiciary, and, of course, your committee's television inquiry. Much of the information requested from the Commission for all three of these investigative hearings was duplicate. I do feel that a considerable amount of time could be saved if some system were instituted in which this kind of duplication could be avoided. However, it is my opinion that such a procedure should be initiated by the Congress and not the agencies involved.

Most of the duplication involved in legislative hearing matters could be avoided if the procedure, suggested by your committee, of requesting only new information or information not already available were more widely practiced.

Attached is a copy of the final Commission figures, in man-hours, devoted to congressional hearings. If we can be of further assistance please feel free to call on us.

Sincerely yours,

GEORGE C. MCCONNAUGHEY, *Chairman.*

FEDERAL COMMUNICATIONS COMMISSION—2D SESS., 84TH CONG.

Man-hours devoted to congressional hearings

	Preparation	Attendance	Followup	Total
Grade 14 and above (48):				
House..... man-hours	1,306	448	237	1,991
Senate..... do	983	478½	106½	1,568
Total..... do	2,289	926½	343½	3,559
Days.....	286	116	43	445
Man-years.....	1.1	0.4	0.2	1.7
Grade 13 and below (78):				
House..... man-hours	1,896	201	486	2,583
Senate..... do	1,058	170	62	1,290
Total..... do	2,954	371	548	3,873
Days.....	369	46	69	484
Man-years.....	1.4	0.2	0.3	1.9
Total, all grades (126):				
House..... man-hours	3,202	619	723	4,544
Senate..... do	2,041	648½	168½	2,858
Total..... do	5,243	1,267½	891½	7,402
Days.....	655	162	112	929
Man-years.....	2.5	0.6	0.5	3.6

FEDERAL COMMUNICATIONS COMMISSION,
Washington, D. C., August 30, 1956.

HON. WARREN G. MAGNUSON,
Chairman, Interstate and Foreign Commerce Committee,
United States Senate, Washington, D. C.

DEAR SENATOR MAGNUSON: At the hearing before your committee on Tuesday, July 17, 1956, it was requested that we supply the committee with a list of the various criteria which are considered by the Commission in comparative television licensing proceedings. A discussion of the relative importance of the criteria, if such difference exist, and whether some of the criteria are contradictory to each other, was also requested (transcript, p. 4812, vol. 30). We will try in the succeeding discussion to set out as definitively as possible the information responsive to their requests.

As to your first request, Congress in the Communications Act of 1934 or its several amendments refrained from laying down definitive criteria to guide the Commission in selecting the best qualified applicant among several competing for a particular channel or facility. Instead, it has left that task to the Commission to work out under the applicable standard, the public interest, convenience, and necessity.

A list of the comparative criteria, which have been evolved and employed by the Commission in the comparative television cases, would include the following: Proposed programing and policies, local ownership, integration of ownership and management, participation in civic activities, record of past broadcast performance, broadcast experience, relative likelihood of effectuation of proposals as shown by the contacts made with local groups and similar efforts, carefulness of operational planning for television, staffing, diversification of the background of the persons controlling, diversification of control of the mediums of mass communications.

In considering the above list, two points should be kept in mind. The list is not the final, absolutely complete delineation of all the criteria which will be considered in the determination of the better qualified applicant from the viewpoint of the public interest. As the Commission gains added insight into its complex and difficult processing task, new factors may be included or a particular factor may be dropped as having been found to have no real decisional vitality. The factors on the above list did not present themselves to the Commission simultaneously in the Commission's first or even first hundred comparative decisions. They were worked out by the agency gradually and laboriously over its years of licensing since 1927. An example in the present period may point up the dynamic nature of the task: The Commission, in the recent television cases, has not bestowed any preference to applicants on the factor of greater comparative coverage because of its conclusion that the tools now available or employed for the prediction of TV coverage are not sufficiently reliable to enable the Commission to make coverage findings which would have decisional significance. (See *Television Spokane, Inc.*, 9 Pike & Fischer, R. R. 713.) But as the tools become perfected or new methods are employed, comparative coverage might become a pertinent issue in the television proceedings. (See *Midwestern Broadcasting Co.*, 13 Pike & Fischer, R. R. 613.)

The second point is that a particular case may present facts pertinent to and perhaps decisive of the public interest determination, which do not, strictly speaking, fall within any of the above listed categories. For example, one applicant may have engaged in trade practices or violations of law outside of the broadcast field to an extent which, while not disqualifying, does raise doubt as to the likelihood of his operating completely in the public interest—a doubt which does not exist in the case of his rival who has no such adverse record. (See, e. g., *Radio Fort Wayne, Inc.*, 9 Pike & Fischer, R. R. 1221). Similarly, there may be marked differences in a case in the applicants' particular policies of service to the area involved. (See *Petersbury Television Corp.*, 10 Pike & Fischer, R. R. 567). Or the case may be decided, under section 307 (b), upon the basis of the relative needs of two closely located but distinct communities for the single channel available to them.

In short, it is impossible to detail or foresee all the facts that could be pertinent to the public interest determination. As the court of appeals stated in the leading case (*Johnston Broadcasting Co. v. Federal Communications Commission*, 175 F. 2d 351, 357-358):

"In sum, we think that there are no established criteria by which a choice between the applicants must be made. In this respect, a comparative determination differs from the determination of each applicant's qualifications for a permit. A choice can properly be made upon those differences advanced by the parties as reasons for the choice * * * It is true that a few items upon which comparisons could be made might be prescribed, but such a list could not encompass every factual possibility * * *"

In keeping with this directive, the Commission permits the adducement by the parties of all facts pertinent to the comparative judgment. And in the final decisional process, the Commission must, in discharging its function under the public interest standard, consider all points based on such record facts—even though falling outside one of the criteria in the above list. This duty has been made clear by judicial interpretation of the Communications Act. (See *Johnston Broadcasting Co. v. Federal Communications Commission*, 175 F. 2d 351.)

Turning to your second request—the relative importance of the criteria—we point out that a precise delineation is even more inappropriate on this score. Thus, we could say that three factors on the list, diversification of the background of the persons controlling, participation in civic activities, or carefulness of operational planning for television, do not carry the same weight as the others. But in given circumstances this would not hold true. For example, taking the last-named factor (carefulness of planning), normally the difference in the applicants' planning, while it may be decisionally significant, does not entitle one applicant to a very important preference over its rivals. (See, e. g., *Tampa Times Co.*, 10 Pike & Fischer, R. R. 77, 136-7.) But imagine the case of an applicant whose plans are completely confused and muddled. Serious doubt might arise as to the likelihood of effectuation of that applicant's programing proposals, and thus the applicant would be at a distinct, not a minor, disadvantage. Further, the applicants may be so evenly matched on all other criteria that a preference in any of the three listed categories could be decisive of the whole case.

As to the other criteria listed, we do not believe any ranking in order of importance is advisable, or indeed, possible. We have stated repeatedly that "there is no all-embracing, absolute criterion" (*Tampa Times Co.*, *supra*, at 126). Proposed programing has been called the essence of service to the public, but that proposal must be viewed in conjunction with the factors going to the likelihood of its effectuation. We cannot say that the proposal is of greater importance than the assurance of its effectuation. Further, the grant of a license is for a considerable period. Accordingly, factors going to the likelihood of continued sensitivity to the area's changing needs cannot properly be given a subordinate role. Nor can the important public-interest consideration of diversification of control of media of mass communications be labeled secondary to the other factors.

We are firmly of the opinion that the only proper approach is to look to the facts of each case. An example may best point up the wisdom of this approach. The normally important factors of local residence and integration of ownership and management (and also participation in civic activities), usually are of lesser significance when dealing with applicants who both have past broadcast records. For such records, being in the nature of an actual demonstration, are more persuasive evidence on the question of effectuation of proposals or continued sensitivity than can be gleaned from the three mentioned criteria—integration, local residence, and civic participation (*The Tribune Co.*, 9 Pike & Fischer, R. R. 719, 770 a-c). However, in the case of the newcomer to the broadcast field, these criteria are of great significance since there is no other way to evaluate such an applicant in this important decisional area (*The Radio Station KFH Co.*, 11 Pike & Fischer, R. R. 1, 103-4). And finally, the evaluation of the newcomer with integration and local residence against the established broadcaster depends on the nature of the particular past record and the integration and local residence showings involved. (Compare *McClatchy Broadcasting Co.*, 9 Pike & Fischer, R. R. 1190, with *The Radio Station KHF Co.*, *supra*.)

In short, here again the facts are controlling. As stated by the court of appeals in its stricture against a mechanical or numerical approach, "a slight degree of superiority in several factors might be more than offset by substantial inferiority in one" (*Scripps-Howard Radio, Inc. v. Federal Communications Commission*, 189 F. 2d 677, 680, *cert. denied* 342 U. S. 830).

Your final request is an inquiry whether certain of the factors considered by the Commission are contradictory. By "contradictory," I understand you to mean an attribute of an applicant which may lead to both a preference in one area of comparison and a disadvantage in another. The answer to this question is "Yes."

Thus, such a situation exists in the case of the applicant who, at the time of his television application, controls other media of mass communications. Such an applicant, if the operator of a radio or television station, may obtain a preference in the categories of past broadcast record and broadcast experience; or if the mass media instrument in question is located in the area where application has been made, the applicant may obtain a preference because of his knowledge of/or insight into the needs of that area (the factors of local residence or participation in civic activities). But the same applicant might be at a disadvantage on the factor of diversification of control of the media of mass communications. It is, of course, impossible to delineate outside the facts of a particular case the relative advantages or disadvantages. We do not believe there is anything amiss in this "contradictory" situation; the Commission is simply discharging its duty, under the statute, to take into account all facets of the public interest judgment.

In concluding, I express my regret that a more definitive answer to your inquiries is not possible. I think you will agree, however, that a mechanical or preordained approach to the television licensing process, since it would not permit proper evaluation of all pertinent facts, would be in derogation of the public interest standard.

If I can be of any further assistance to you in this matter, please do not hesitate to call on me.

By direction of the Commission :

GEORGE C. MCCONNAUGHEY, *Chairman*.

TELEVISION INQUIRY (UHF-VHF Allocation Problem)

WEDNESDAY, JULY 18, 1956

UNITED STATES SENATE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10:30 a. m., Senator Frederick G. Payne, presiding.

Present: Senator Payne.

Also present: Wayne T. Geissinger, assistant chief counsel; Kenneth A. Cox, special counsel; Nicholas Zapple, staff communications counsel.

Senator PAYNE. The hearing will be in order.

The witness this morning is John W. Boler, president of the North Dakota Broadcasting Co. Mr. Boler, we will be very happy indeed to hear from you, sir.

I apologize, as far as I am concerned, for not getting here ahead of time, but it so happens that I just learned about the fact that there was a shortage of people up here just a couple of minutes ago.

Mr. BOLER. I appreciate the opportunity of being here. This is a rather lengthy statement.

Senator PAYNE. You may proceed.

Mr. BOLER. I will read the statement without the exhibits, or I will read the entire statement, or we can put it in the record and we can have questioning.

Senator PAYNE. Proceed any way you care to. The statement, I understand, is 10 pages.

Mr. BOLER. That is right.

Senator PAYNE. Why don't you go ahead with the statement, with the understanding that the exhibits will all be made a part of the record.

Mr. BOLER. Fine.

STATEMENT OF JOHN W. BOLER, PRESIDENT OF THE NORTH DAKOTA BROADCASTING CO.

Mr. BOLER. My name is John Boler. I am president of the North Dakota Broadcasting Co. This company owns and operates KXJB-TV, Valley City; KBMB-TV, Bismarck; KCJB-TV, Minot; KCJB radio, Minot; KSJB radio, Jamestown, all located in the State of North Dakota.

I appreciate being given the opportunity to appear before you today to discuss American Telephone & Telegraph Co. tariff and general

business practices. I hope that I can submit sufficient evidence to convince you that a very thorough investigation should be made of A. T. & T. tariffs and of the general business practices of the A. T. & T. I do not believe the Federal Communications Commission has the funds to make such an investigation, and I hope that this committee may be able to remedy this situation.

First, in reference to business practices, it refuses services, except at its convenience, and then at arbitrary tariffs dictated by it. To be specific, let me tell you of my experience with A. T. & T., which I believe will confirm these facts.

Over a period of 3 years, from the fall of 1951 through June 1954, I made numerous inquiries of A. T. & T. relative to television network service facilities, and in most instances they did not even have the courtesy to respond. At this time the telephone company did not have facilities to extend network programs into our State. The closest city for interconnection was Minneapolis, Minn. An inquiry was made of the telephone company when and if such facilities would be available to extend television programs into North Dakota. The first such inquiry was made of the phone company in October 1951. Its answer was that it could give no date; further, it had no plans whatsoever for such service in the immediate future. Later, we inquired again to see if there were any new developments, and received similar reports. The latest inquiries, made through our local telephone company, brought us the response that it would be 1956 or 1957 before it could have service to Fargo, and 1958 or 1959 before they could serve Bismarck or Minot.

We made inquiry of the FCC as to whether or not we could obtain construction permits to build a private relay link between Minneapolis and Fargo, N. Dak., to obtain live television service. We based our inquiry on our understanding that FCC rules provided that if a common carrier has no facilities, a private system may be licensed; further, we informed the Commission we could not afford the common carrier service even if it were available. Members of the Commission staff informed my attorney that we had to obtain a letter from the common carrier confirming that they did not have facilities and/or that they had no immediate plans for installation of such facilities. We were so naive as to believe that the A. T. & T. would confirm its lack of interest and/or inability to furnish facilities.

A. T. & T. officials did not respond directly in writing to our inquiries, but their representatives got word to us to the effect that in their opinion it was economically impractical to establish television stations in North Dakota, and that anyone considering such a venture should have his head examined.

In view of this attitude, we anticipated no problems in obtaining the necessary permits from the FCC to install our own private system between Minneapolis and Fargo and proceeded therefore to obtain all of the necessary engineering data and financing to build such a private system to service our own stations. After 4 months of fieldwork, determining sites for the microwave towers, making leases, and so forth, we completed our application and filed it with the FCC for the necessary microwave relay links between Minneapolis and Fargo to interconnect us with the networks. The FCC staff requested that we obtain a formal letter from the A. T. & T. stating its intent re establishing service parallel to our planned system. The commercial manager

in the Fargo office of the telephone company advised that the could get no response from the A. T. & T. This was in February 1954. I told this representative that either I get a response immediately or I would call the president of A. T. & T. or file a formal complaint with the FCC.

The following day I received a call from him asking for an appointment for a representative of A. T. & T. Mr. Edward Laird, Jr., commercial manager of A. T. & T. long lines division for our area, arrived in North Dakota for this appointment. Mr. Laird questioned the wisdom of establishing television stations in North Dakota and wanted to know if we would be able to pay the bill if the phone company put in such facilities. We advised him that we did not want their facilities or their advice; we wanted to build our own private system and needed a letter from him advising A. T. & T. lack of interest and/or inability to furnish service. When he was asked why he did not reply to all previous requests during the past several months, he stated that he could not believe it was a serious inquiry. He said the company received numerous inquiries nationwide from people who were dreaming about going into television and they simply could not pay attention to all such requests.

Senator PAYNE. In other words, am I to understand you started making the inquiries on this back in 1951?

Mr. BOLER. That is correct, sir.

Senator PAYNE. And in 1954 there was suddenly enough interest to apparently come and talk with you?

Mr. BOLER. They found out that we had been engineering our system from Minneapolis to Fargo. We started in late October, in 1953. They found out finally—they were told, tipped off by the Northwestern office in Fargo—that we actually were surveying and were going to apply for a permit. And that one of the reasons primarily, now that we were putting the pressure on to get a response, is because the FCC rules required that we had to show evidence that there were no facilities, or they would not put them in. They stalled, delayed, wouldn't write a letter.

Finally, when they discovered that we had our engineering all done and were going after our private system, then they immediately came right up.

Mr. COX. When did your stations go on the air?

Mr. BOLER. Our first station went on the air in April 1953, in Minot. And prior to that, of course, our application had been on file for many months before.

In other words, in 1952 we actually did the engineering for our first station, and we were operating a closed circuit television system in Minot training our staff because of the shortage of television employees. So actually, in October 1951, is when we decided to plan financing and go into TV.

Mr. COX. When was your Fargo station—

Mr. BOLER. The Fargo station went on the air August 12, 1954.

Mr. Laird then advised us that A. T. & T. would be willing to push its construction schedule up to meet our demand providing we would be willing to pay an expediting charge of \$22,000, and then it promptly notified the FCC of its offer to us in order to block our application for the private system. They notified our competitor simultaneously, and our competitor accepted A. T. & T.'s offer and therefore we were

forced to accept common-carrier service. We refused to pay the expediting charge and now the A. T. & T. is suing us for it, right now. (See exhibit 1, page 992).

Now, I ask you: Is it your intent that A. T. & T. be the agency that advises the broadcaster whether or not it is economically feasible to have television service in North Dakota, instead of the licensing agency? Is it your intent that the common carrier ignore all verbal and written requests for information as to availability of facilities, and do so continuously for a period of months on end and/or until such time as it is threatened with the installation of a private system? Is it your intent that this Government-protected monopoly put a broadcaster to the expense of engineering a private system at a cost of thousands of dollars, only to have the permits for the private system denied because the common carrier changes its mind at the last minute when it sees that the broadcaster intends to install his own private system? Under the existing FCC regulations, A. T. & T. can automatically block the installation of a private system through reversing its decision at will and offering to give service, thereby preventing the FCC from granting a permit for a private system.

This, gentlemen, is what is going on today, and has been the practice of the common carrier ever since the inception of television. This same procedure has been experienced by a great number of broadcasters. I have talked to dozens of broadcasters.

Senator PAYNE. You happen to come from North Dakota, but I have a close personal friend of mine who is a broadcaster in the State of Maine, which is quite far removed, and I know he ran up against the same situation.

Mr. BOLER. I see. Well, we have a petition on file with the FCC to amend part 4 of the Commission's rules governing television auxiliary stations, which, if adopted, would stop some of this flagrant abuse by A. T. & T. It has been on file since August 1954, but has not been adopted. We have been advised that the FCC has this petition under active consideration and I ask your help to get action on this. (See exhibit 2, p. 992.)

Attached you will find a schedule of our payments to A. T. & T. which shows payments over a period of 21 months totaling \$234,996.34. Attached find a letter from my competitor, WDAY-TV Fargo, indicating they have paid A. T. & T. \$204,000 during the same period of time, and we are served by A. T. & T. from the same facilities. (See exhibits Nos. 3 and 4, pp. 994 and 995.) Payments to A. T. & T. over this period of 21 months total \$439,000. The A. T. & T. investment in facilities to serve us, we believe, is less than \$500,000. In other words, A. T. & T. is recovering its total investment in 3 years or less. I wish this committee would subpoena the records and confirm the actual investment.

Our payments to A. T. & T. represent 18.7 percent of our total operating cost. Our gross sales for 1955 for KXJB-TV were \$523,000 and we paid A. T. & T. \$124,000. For the same period we suffered a loss of over \$130,000. If we had been authorized to install our own microwave system, our operating costs to date could have been reduced approximately \$100,000 and our loss reduced to the amount normally experienced by any new television operation. We can install our own microwave system for less than \$200,000 and maintain it at a maximum cost of \$42,000 per year, or 30 percent of A. T. & T.'s tariff. This

includes depreciation, service, parts, insurance, and two full-time engineers to service the equipment. (Details shown on exhibits 5 and 6, pp. 995 and 996.)

I have no right to expend the money demanded by A. T. & T. to bring live television service into North Dakota. The public, however, has the right to expect the same television service in North Dakota as is available in Washington, D. C., or any other place. They want to see President Eisenhower and the world series and other outstanding events—and they are entitled to this service.

This is the realization of the FCC Priority No. 1, Sixth Report and Order, of providing “at least one television service to all parts of these United States.”

A clear-cut policy on licensing of such private facilities is necessary to accomplish this goal of the FCC. The FCC should be the agency that determines whether duplication of facilities by the common carrier and private enterprise is justified in the instance of financial hardship, and not A. T. & T. The broadcasters are capable of operating, maintaining, and providing quality service. Provisions in the rules for private relay systems to serve the remote areas should effect a more desirable concentration of common-carrier facilities on main trunk and branch lines with resulting economies to all. The common carrier would not be forced to maintain its rates to cover risk capital which might be lost if smaller market stations enter into, or, I should say, are forced into, economically unsound contracts with the common carrier.

We understand that one of the reasons the FCC has delayed acting on our petition to amend the rules, or its primary concern, is “economy of frequencies.” We do not believe that this argument or contention of A. T. & T. is applicable to relay facilities that would be licensed for a single user. Privately owned facilities would not require greater band widths, according to our engineers, and no additional channels would be required. The use of existing allocated intercity and STL channels would be adequate for this service.

Everyone knows that the growth of television is related to economics. If a television station is located in the area of existing carrier network routes, economy may determine the use of the common carrier. The farther away the station is from the major market the higher the connection cost. Common-carrier rates, we understand, are based on averages, and when they are trying to reach areas like North Dakota it may even affect the average rate formula.

If provisions for privately owned relays are adopted by the Commission, the matter of getting the service into smaller markets can be assumed by the broadcaster, and at a rate that he can afford.

Privately owned systems will not jeopardize the common-carrier service. If the common carrier can provide service or instant communication to three-fourths of the Nation's population now in case of a national emergency, privately owned relays could supplement this same service to a large portion of the population not now served. This would include normal daily service as well as emergency service which otherwise would not be available for many years to come.

Now, A. T. & T. maintains that the off-the-air pickup, which service it now offers, is the solution to all of the small television broadcasters' problems, but it is not. (See exhibits Nos. 7 and 8, p. 998.) I

know from personal observation that the off-the-air installation made by A. T. & T. for one of my competitors in North Dakota is very unsatisfactory, and they have been operating the system since October 1955, and that broadcaster has constantly complained to A. T. & T. They deliver a bad picture and they have numerous outages. A. T. & T. is charging this station approximately \$4,700 per month, even though the broadcaster furnished the tower and buildings to A. T. & T. specifications. This broadcaster could have put in his own system, were he allowed to, and could have maintained it for \$1,000 to \$1,200 per month and have had a much better quality service.

I know of another installation made by the telephone company for a broadcaster in South Dakota where an off-the-air service is being used. I talked to this broadcaster on the phone before I left home and asked him if he was pleased with his service. He said that he was having a miserable experience with it. One thing he pointed out in particular was the service. When they have a failure, A. T. & T. contracts allow them 2 hours to get an engineer to the location. He has had a tremendous number of outages and a substantial loss of air time. A. T. & T. told him a standby generator was needed and it would take them 6 weeks to put it in to cut down the outages by power failure. He advised them that he could not wait 6 weeks or tolerate these outages, and that he could have a local company put in a standby unit and could do so within 48 hours, but the phone company would not allow him to do it. He is now demanding that A. T. & T. put in TD-2 type equipment instead of the type of equipment used, because losses by power failure were only a part of the trouble.

These two examples of A. T. & T. off-the-air service point up several things. A. T. & T. charges for its off-the-air pickup service are exorbitant for the quality of picture and the service given. (See exhibit No. 9, p. 999.) It is 65 to 70 percent of their charge for first-class service. Further, as to the service, the broadcaster could install a system and have attended service of a staff engineer of his own system at a cost of 50 percent of A. T. & T. tariff for their unattended service off the air.

It is not in the public interest to restrict the opportunity to provide off-the-air service to A. T. & T. when, where, as, and if it decides it wants to and/or has the right to provide it, as the case is under the present regulations.

The Commission rules should be amended to give the FCC discretion to grant applications for private television intercity relay stations or off-the-air pickup notwithstanding the fact that the common carrier facilities may be available. This would encourage a more completely satisfactory solution to dozens of broadcasters' problems in practically every State in the Union, including UHF stations. Such a rule, properly administered, would not jeopardize the A. T. & T. network nor impair its ability to—

meet the requirements of the television broadcast industry for network transmission facilities.

The FCC recognizes that in order to exist, a television station must provide live programming, must interconnect with network facilities or with other television stations. This procedure is economically feasible, however, only if interconnection charges are consistent with the station's revenue. We cannot exist if our payments to A. T. & T.

continue to be 18 to 20 percent of our total operating cost. I repeat, I paid A. T. & T. \$124,000 in 1955, and our gross sales were \$523,000 and our operating loss was \$139,000. We could have and should have had our own microwave system, and if we did we could have saved at least \$100,000. (See A. T. & T. contract attached, exhibit No. 1.)

Our petition to the FCC, filed in August 1954, to amend part 4 of the Commission's rules and regulations governing television auxiliary broadcast stations (Docket No. 11164) has the support of more than 70 broadcasters from different areas of the country, as evidenced by their comments filed with the FCC. I understand CBS, NBC, and ABC have also filed supporting comments. The Radio-Electronics-Television Manufacturing Association has filed supporting comments, and I wish to quote a synopsis of the conclusions of Mr. McDaniel, president of the Radio-Electronics-Television Manufacturing Association:

RETMA believes the success of the Commission's proposed extension of television service to remote areas through low power, relaxed rules, and satellites depends upon two basic factors. First, ability of industry to develop adequate equipment economically within the resources of smaller communities, and, second, the ability of such communities to receive and rebroadcast, at low cost, network and other live programs. One cannot succeed without the other.

Delay in establishment of effective rules covering the subject matter of this proceeding will prevent full realization of the Commission's plan of extension of television service to remote areas, utilization of the UHF frequencies, and the establishment of a nationwide competitive television service.

Now, A. T. & T. has vigorously opposed our petition to change the rules on the basis that their "off-the-air pickup service is the solution." Incidentally, at this point I would like to add that they did not come out with this off-the-air pickup proposition until a few months after we had filed our petition to change the rules. Then, and not until then, did they try to figure out some camouflage to supposedly solve our problems.

I refer you to the installations it has in North and South Dakota that contradict their theory. This so-called new and cheaper interconnection service furnished by A. T. & T. is subject to limitations specified by A. T. & T., and not by the Commission. Presumably, the decision to furnish cheaper service would be at the discretion of A. T. & T. and it would be provided only in the absence of other facilities. Although the proposal of A. T. & T. is not specifically described as a common-carrier service, the right to provide it in practical effect would be restricted to A. T. & T. Each channel furnished would be at the exclusive service of a single customer.

A. T. & T. does not want the FCC to have the discretionary authority for use in intercity television relay situations in which present policies of the proposed cheaper A. T. & T. service may impose a prohibitive economic burden upon the particular broadcaster. Under the present FCC rules, there is no provision for the FCC to determine whether a cheaper service should be furnished in any particular situation. In A. T. & T.'s proposal for off-the-air service, there is no criteria for use by A. T. & T. in making a decision as to who can or who cannot have this so-called utility grade service offered by them. A. T. & T. is well aware of the tremendous hardship caused North Dakota Broadcasting Co. by the cost of service provided by it between Fargo and Minneapolis, but it has done nothing about it, except to extend us time when we cannot pay the bill. It admits that the

off-the-air service is no solution to our problem. As long as other stations in tandem also do off-the-air pickup from our facilities—at this point I would like to explain what I mean here. We have two additional television stations in North Dakota beyond our pickup point from A. T. & T. And these two stations are currently taking off-the-air pickup from our big station and thereby preventing us from doing an off-the-air pickup out of Minneapolis. In other words, if we do one off-the-air pickup, the A. T. & T. admit themselves that a second or third off-the-air pickup is not practical, technically.

Mr. Cox. This off-the-air pickup service that you provide to your stations in Minot and Bismarck is a private system?

Mr. BOLER. A private system that we have installed; that is right.

The Telephone Co. admits that the first long hop (213 miles) between Minneapolis and Fargo must be a direct connection on a city-to-city basis. They have quoted us a tariff of \$16,130 per month on a minimum contract of 3 years, and termination charges totaling \$274,395, with no guaranty of performance of the equipment. (See letter attached from A. T. & T. and letter dated August 31, 1955, p. 3). A. T. & T. has now withdrawn this offer and agrees that tandem operation is not technically possible.

The determination as to whether we should be forced to take service from A. T. & T. or be allowed to operate our own microwave facilities between Minneapolis and Fargo should be made by the FCC and not the common carrier. Evidence shows A. T. & T. lack of interest in a broadcaster's financial problems due to its high tariff, and if a broadcaster attempts to obtain permits for private facilities A. T. & T. shows an arrogance that could only come from management of a monopoly which is not properly controlled, primarily because the rules and regulations make control impossible.

We are not attempting to undermine the sound Commission policy regarding protection of the common carrier's role of providing long-haul, through route service to several customers simultaneously. We agree that A. T. & T. should maintain the backbone service coast-to-coast, and branch service into important tributaries such as Minneapolis. The television stations along these routes have advertising rates from \$1,200 an hour to \$6,000 per hour, and their revenue from the networks and advertisers far exceeds the sum paid to A. T. & T. I am talking about television stations like ours. Our largest station went on the air in August 1954, with a network rate of \$150 per hour, but we still were forced into A. T. & T. service by our competitor. The first 4 months we took in \$15,000 from networks and we were billed for over \$40,000 by A. T. & T. Incidentally, that \$40,000 doesn't include the expediting charge. In the ensuing 12 months we received from networks \$70,000 and were billed \$124,000 by A. T. & T. The largest city in our area is Fargo, with a population of less than 50,000 people.

A. T. & T. is not using the installation serving us for any other purposes to the best of our knowledge. The city-to-city service between Minneapolis and Fargo is a dead end link. FCC should be in the position to license private enterprise in situations like this.

In our attempt to establish television in North Dakota we have suffered a loss of over \$400,000. We expected to lose some money, but we did not expect to have to pay A. T. & T. \$234,996. With the discretion in A. T. & T.'s hands, it is obvious that it does not care whether a community has service or whether a broadcaster goes bankrupt attempting to establish the service. Its interest is primarily in paying its dividends so that it can do billions and billions of dollars of new financing. I have over 400 stockholders who have not had a dividend in 2½ years. They are entitled to dividends too, whereas, instead of receiving dividends, their investment has been jeopardized by A. T. & T. forcing its service and its tariff on us. I would like to add that those 400 stockholders are citizens of the State of North Dakota only. They invested their money with North Dakota Broadcasting Co. because they were interested in seeing television brought to North Dakota. Therefore, they invested with us to accomplish this purpose. As I say, when they invested the money we had planned to put in a private relay system, we had our budget setup planned on that basis, because of A. T. & T.'s statements that they were interested, and so forth. Actually, our stockholders invested with us on the basis of planned operation at that time. And then at the last minute we were forced into taking A. T. & T.'s service. We had invested some \$650,000 in the station anticipating immediate live connection with a network. And then our competitor had to—he had no plans for putting in a private system—so when A. T. & T. came up with this proposition, they immediately grabbed it, because they knew we would either get a permit, which was on file—so we were actually forced into it.

If you will give George McConnaughey, FCC Chairman, a sufficient appropriation to allow him to hire a staff of experts, including accountants, engineers, and economists, who will make a thorough investigation of A. T. & T. tariffs and its business practices, it is my firm belief that the FCC will give the broadcaster the necessary relief from the present exorbitant tariffs.

In the meantime, I beg of you to call upon the FCC to act on our petition to amend the rules (docket 11164) so that we and other broadcasters can live during this interim of investigation.

(The exhibits referred to are as follows:)

DESCRIPTION OF EXHIBITS ATTACHED

1. A. T. & T. letter of agreement dated July 20, 1954.
2. Copy of petition to amend rules.
3. Schedule of payments made to A. T. & T. between October 1954 through June 1956.
4. Letter from WDAY-TV re payments to A. T. & T.
5. Estimate of installation and operating cost of private system between Minneapolis and Fargo, N. Dak.
6. Letter to Hon. Warren Magnuson re private microwave operating cost.
7. Letter from A. T. & T. March 10, 1955, giving quotations and contract conditions re Off-the-Air.
8. Letter to A. T. & T. requesting Minneapolis-Fargo off-the-air tariff, and clarification re "tandem" operation.
9. Letter from A. T. & T. advising that "tandem" off-the-air operation is not possible.

EXHIBIT No. 1

AMERICAN TELEPHONE & TELEGRAPH CO.,
LONG LINES DEPARTMENT,
Kansas City, Mo., July 20, 1954.

Mr. JOHN W. BOLER,
President, North Dakota Broadcasting Co., Inc.,
Hampshire House, Central Park South,
New York, N. Y.

DEAR MR. BOLER: This is to confirm our telephone conversation of July 19, 1954, during which I told you that we were still willing to uphold the commitment made to you on May 27 by Mr. Botkin of our company that we could provide 2 channels from Minneapolis to Fargo by the latter part of September, and that the \$22,000 charge for expediting the construction would cover the cost of providing 2 channels.

On this basis, the special charge to you would be \$11,000 for providing a channel for your exclusive use by the end of September 1954, and it is my understanding that you are willing to pay the special charge in order to obtain service at that time.

Monthly service charges to you will be approximately \$8,825 per month for the video service and \$1,371 per month for the audio service, making a total of about \$10,200 per month, in accordance with our present filed tariff rates.

The above quotation contemplates 8 hours per day contract service for the video portion and 16 hours per day contract service for the audio portion. Service periods in addition to the 8 hours contract period for the video portion will be billed at the published tariff rates for consecutive and nonconsecutive hours.

I am forwarding two copies of this letter to you with the request that you signify your acceptance hereon and return one copy to me at your earliest convenience.

Yours very truly,

E. C. LAIRD, JR.

Accepted, pursuant to notation below.

NORTH DAKOTA BROADCASTING CO., INC.,
BY JOHN W. BOLER, President.

JULY 23, 1954.

I accept the aforesaid terms under compulsion and duress and reserve the right to seek other means of securing service at a lower tariff.

JOHN W. BOLER.

EXHIBIT No. 2

BEFORE THE FEDERAL COMMUNICATIONS COMMISSION

Washington, D. C.

In re Amendment of Sections 4.631 and 4.632 of Commission's Rules and Regulations

PETITION FOR PROPOSED RULEMAKING

This petition is filed by North Dakota Broadcasting Co., Inc., permittee of television station KXJB-TV, Valley City, N. Dak. It requests the Commission to institute rulemaking proceeding to amend sections 4.631 and 4.632 of its rules to permit the grant of private intercity relay facilities on a case-by-case basis. In support thereof, the following matters are shown:

1. The Commission's rules (secs. 4.631 and 4.632) provide for grants of private intercity relay facilities only in the event common carrier fixed intercity video facilities are not available, and then upon an interim basis only, or until such time as common carrier facilities become available. Under the present rules a broadcaster is placed at the mercy of the common carrier as to whether he can get authority to operate an intercity relay, as to how long he may operate a private facility, and as to whether the license therefor will be renewed.

2. Petitioner is permittee of television station KCJB-TV, Minot, N. Dak., and is vitally concerned with the cost of bringing live television network shows to North Dakota residents. The closest point at which petitioner can interconnect with live network shows is Minneapolis,

Minn., a distance of approximately 550 miles from Minot and 263 miles from Valley City. The cost of common-carrier service over this distance at \$41 per mile per month is such that petitioner cannot hope to bring live television network shows to North Dakota residents for an extended period of time by means of this service. The charge of \$41 per mile per month is for 8 consecutive hours per day for the video portion and 16 hours per day contract service for the audio portion. Service periods in addition to the 8 hours for the video portion are billed at the published tariff rates for consecutive and nonconsecutive hours. If a broadcaster should desire network service for 8 nonconsecutive hours in addition to the initial 8 hours the cost would be \$73 per mile per month, plus a connection charge of \$1,060 per month, or a total monthly charge for a 263-mile haul in excess of \$20,000 per month, if petitioner has correctly interpreted the tariff.

If a broadcaster is authorized to construct and operate a private facility, it will have no concern over nonconsecutive hours above the initial 8. It could easily carry 16 hours of network shows per day at less cost than it would have to pay for common-carrier facilities for 8 consecutive hours.

3. The population density of North Dakota, according to the 1950 census, was approximately 3.8 persons per square mile. The revenues which petitioner can reasonably hope to derive from television operation in this area cannot compare with that available to operators in the more densely populated areas of the country. If petitioner is to bring his viewers live network shows he must obtain them at a cost reasonably related to the broadcast revenues available in the North Dakota area. Petitioner is prepared to demonstrate on appropriate application that it can construct and operate a private intercity relay facility between Minneapolis and Valley City, N. Dak., at a cost of approximately one-half that of common-carrier service.

4. Petitioner respectfully submits that it is in the public interest for the Commission to amend its rules and regulations as herein requested to provide a more economical means of bringing live network shows to the less densely populated areas of the country, such as North Dakota, Idaho, Wyoming, Montana, and similar areas.

5. The granting of authority to television licensees to operate intercity relay facilities, on a case-by-case basis, where the need for such service is reasonably demonstrated, will not result in the inefficient and uneconomical use of spectrum space. This is especially true in the Minneapolis-to-Fargo area.

Section 4.602 of the Commission's rules provides 7 channels in the 2,000-megacycle band and 7 channels in the 7,000-megacycle band which may be assigned for use by television pickup stations, STL stations and television intercity relay stations. Four of the 7,000-megacycle channels are assigned to St. Paul-Minneapolis and three are assigned to Fargo, thus seven 2,000-megacycle channels are presently available for intercity relay assignment between Minneapolis and Fargo. This situation will obtain for the foreseeable future due to the thinness of the population in this area.

It should also be noted that one channel is needed to transmit a video signal whether on common-carrier frequency or television station-auxiliary frequency. The common-carrier channel which will handle one video signal will handle several hundred messages if devoted to message service use. It is apparent, therefore, that it is a waste of spectrum space to require a television broadcaster to use common-carrier service for intercity relay when seven television auxiliary channels are available and not used.

Petitioner is concerned about the present rules and regulations sought to be amended in that the Commission has tied its hands to the point where it has no discretion to grant authority to a broadcaster to operate a private intercity relay facility if common carrier service is available. In the Commission's letter of July 14, 1954 (FCC 54-880-8136-8320) to petitioner, after discussing petitioner's contention that it is not economically feasible for it to use A. T. & T. service between Minneapolis and Fargo, this statement was made (p. 2, line 22) :

"* * *, it appears that common-carrier service is available to you and, therefore, the Commission is unable to determine that a grant of your application would be *consistent with the provisions of the Commission's rules quoted above and its policies promulgated thereunder.*" [Emphasis supplied.]

Petitioner respectfully submits that the Commission should amend its rules and regulations so that it can, where the facts warrant, grant authority to a television broadcaster to operate a private intercity relay facility, despite the availability of common-carrier facilities. The Commission should not be foreclosed in the exercise of its discretion in this matter. As the rules now provide, the

television broadcaster in the rural areas must buy A. T. & T. service, pay a bonus for expediting the service if A. T. & T. has not planned to connect the points desired, regardless of the fact that A. T. & T.'s charges are absolutely prohibitive, and the Commission is impotent to act because of its rules and "its policies promulgated thereunder." Petitioner respectfully submits that if live television service with network programing is to be made available in the wide open spaces of the country the Commission must have the power and discretion, under its own rules, to grant authority to broadcasters in such areas to operate intercity relay facilities. Such action the Commission cannot now take without contravening the rules herein complained of. Such restriction upon its power prevents the Commission carrying out its statutory duty of rendering public interest, convenience and necessity.

6. The suggested amendment to section 4.631 (c) reads as follows:

"Television intercity relay stations provide a means on an interim basis whereby television broadcast licensees may provide their own intercity television transmission services in connection with the operation of their television broadcast stations. Provided, however, that the Commission may grant authority to television broadcast licensees to operate intercity television transmission facilities where, in the opinion of the Commission, the cost of common carrier facilities compared to the cost of constructing and operating private intercity relay facilities justifies such action.

"This proviso is designed to permit the Commission, in its discretion, to authorize private intercity relay transmission facilities, to stimulate the development of live television network service in the less densely populated areas of the country."

Section 4.632 (b) amended to delete subparagraph (2) thereof.

Respectfully submitted.

NORTH DAKOTA BROADCASTING Co., INC.
By D. F. PRINCE, *Its Attorney.*

EXHIBIT No. 3

NORTH DAKOTA BROADCASTING Co., KXJB-TV, VALLEY CITY, N. DAK.

Schedule of payments to A. T. & T., 1954 through June 1956

Date	Check No.	Amount	Date	Check No.	Amount
1954—Oct. 7.....	9442	\$11,765.60	1955—Dec. 12.....	10764	\$9,956.75
Nov. 16.....	9569	11,096.89	Dec. 30.....	10624	10,474.75
Dec. 8.....	9677	11,189.00	Total.....		117,561.45
Dec. 14.....	30	1,000.00			
Total.....		35,051.49	1956—Jan. 12.....	745	9,956.75
			Jan. 30.....	780	657.39
1955—Jan. 17.....	9948	11,644.41	Feb. 11.....	795	10,912.09
Feb. 12.....	9675	11,171.53	Apr. 19.....	11194	11,533.13
Feb. 14.....	9679	1,618.33	May 23.....	906	9,955.18
Apr. 20.....	10105	11,937.65	June 6.....	11212	15,271.65
May 10.....	10228	12,022.67	June 10.....	874	2,100.07
June 14.....	10279	10,474.75	June 26.....	11491	10,785.09
Sept. 5.....	10549	5,237.38	July 10.....	11213	11,212.08
Aug. 25.....	440	5,237.37	Total.....		82,383.43
Oct. 13.....	10624	7,249.37			
Nov. 7.....	10622	10,474.75	Grand total.....		234,996.37
Nov. 21.....	10716	10,061.74			

WDAY EXHIBIT No. 4

WDAY, INC.,
Fargo, N. Dak., July 11, 1956.

Mr. JOHN W. BOLER,

President, North Dakota Broadcasting Co., Fargo, N. Dak.

DEAR MR. BOLER: In response to your request I have checked our records and find that we have paid A. T. & T. the following amount since inaugurating live television service: September 25, 1954, through May 31, 1956, \$192,942.11. This amount represents payment for slightly over 8 consecutive hours per day of microwave service from Minneapolis to Fargo and includes charges for terminal con-

nections and switching. Also we paid \$11,000 to A. T. & T. for an additional "expediting" fee for them to advance their date for construction of the microwave facility from Fargo to Minneapolis. This fee represents half the cost for expediting that construction.

I would like, if I may, to pass along one additional comment: Our current contract with A. T. & T. specifies a minimum of 8 consecutive hours of service per day. Thus we are paying for service even though during that 8-hour period we program local news, weather, sports, or other public interest or public service shows. It would be much to the advantage of the public if we could take service of a minimum of 8 hours a day, but could spread the 8-hour period over, say 16 hours. In other words, eliminate the consecutive-hour portion of the 8-hour daily minimum contract. As it stands now, we are actually penalized if we use a nonconsecutive hour over and above the 8-hour minimum, inasmuch as the consecutive [sic] hour is charged at double the rate of a consecutive hour.

Sincerely,

TOM BARNES, *General Manager.*

EXHIBIT No. 5

The following data is based upon Philco equipment. Equipment prices are from the current listings or quotations. Operating cost is based upon estimates of the manufacturer and upon experience gained in operating long-hop microwave relays. This particular microwave layout between Minneapolis and Fargo is based upon a survey made by Philco Corp., which calls for a nine-hop system. Such a system would be comprised of 1 terminal transmitting station and located on the Foshay Tower in Minneapolis; 8 repeater stations, 1 terminal receiver station located at Fargo, N. Dak.

The cost of the various stations would be as follows:

Terminal transmitting station

Transmitter.....	\$6, 825
Parabolic dish.....	415
Voltage regulator.....	175
Waveguide.....	96
Installation cost.....	400
Total.....	7, 911

Receiver terminal

1 receiver.....	\$4, 800
Waveguide.....	48
1 parabolic dish.....	285
1 voltage regulator.....	175
1 8-by-12-foot reflector.....	420
Installation cost.....	300
Total.....	6, 028

Receiver station

1 receiver transmitter receiver.....	\$10, 500
Waveguide.....	96
2 parabolic dishes.....	570
1 voltage regulator.....	175
2 8- by 12-foot reflectors.....	1, 080
1 8- by 12-foot building.....	1, 205
Installation cost.....	300
Total.....	13, 926

Towers

Cost of 8 towers, erected.....	\$26, 000
(Towers consist of two 260-foot, two 200-foot, one 130-foot, one 110-foot, one 100-foot, and one 70-foot.)	

Summary of installed cost

1 transmitter terminal-----	\$7, 911
1 receiver terminal-----	6, 028
8 towers-----	26, 000
8 receiver stations-----	111, 408
Total-----	151, 347

In arriving at monthly operating cost, it is assumed there would be 2 maintenance men permanently assigned to the system and 1 man on a part-time basis assigned to the transmitter terminal station. Car expense is figured at 7 cents per mile; and tube cost, which is included in repairs and maintenance, is based upon a tube life of 15,000 hours which the Philco Corp. states is a conservative estimate.

Monthly operating cost:

Labor-----	\$775. 00
Car expense-----	152. 00
Repairs and maintenance-----	710. 00
Power-----	200. 00
Leases and rentals-----	300. 00
Total-----	2, 137. 00

Annual cost of system:

Operating cost-----	\$25, 644. 00
Depreciation-----	15, 134. 70
Insurance-----	1, 160. 00
Total-----	41, 938. 70

COMPARISON OF COSTS: A. T. & T. VERSUS PRIVATE RELAY SYSTEM

The KXJB-TV contract with the American Telephone & Telegraph Co. calls for a monthly cost of \$10,500 per month for 8 continuous hours' daily service. For overtime service over and beyond 8 hours, the extra charge is \$51 per hour.

It has long been the desire of KXJB-TV to extend network service to 15 hours daily Monday through Friday, with the present hours on Saturday and Sunday. This would amount to 7 hours' daily extra service Monday through Friday, or 154 hours monthly additional service, which, at \$51 per hour, \$7,854 per month additional payment, or a total of \$18,354 per month for service as outlined above.

This figure would run to \$220,248 annually, as compared to the cost of operating a privately owned microwave system at \$41,938 per year. There would be a savings of \$178,310 annually in network costs. Reduced to percentages, the A. T. & T. annual charge would be 117 percent of the installed cost of a privately owned microwave system based upon 15 hours' daily operation Monday through Friday and 8 hours daily on Saturday and Sunday.

Additionally, the privately owned microwave system would be capable of operating 24 hours a day at the above-mentioned operating costs, which are figured on a 24-hour basis. This will allow pickup of special events at any time of day without special telephone or telegraphic orders being transmitted and without additional cost.

EXHIBIT No. 6

FARGO, N. DAK., *January 23, 1955.*

HON. WARREN G. MAGNUSON,

*Chairman, Committee on Interstate and Foreign Commerce,
Senate Office Building, Washington, D. C.*

DEAR SENATOR MAGNUSON: I note that your special committee has commenced hearings in connection with investigation of the radio and television industry.

I sincerely hope that the investigation will include A. T. & T. tariff for television program transmission facilities.

I have some information that may be of considerable interest to your committee in reference to the operating cost of private microwave systems. It consists of facts and figures which I challenge A. T. & T. to compete with.

We installed this system in October 1954, to transmit programs between Valley City, N. Dak., and Minot, N. Dak., a distance of approximately 180

miles. Airline distance between the point of origination (off-the-air from Valley City) and Minot, N. Dak., is 120 miles, and we use three microwave relay stations.

The installation cost of this system was \$51,088.11.

The operating cost of this system for the 12-month period commencing January 1955 through December 1955, is as follows:

Salaries	\$2,920.32
Traveling expenses	2,779.68
Tri County Electric Power	512.14
Verendry Electric Power	423.72
Insurance	338.85
Tube cost	2,720.40
Depreciation (10-year basis)	5,108.81
Total	14,804.14
A. T. & T.	67,440.00

You will note the average cost per month of operation for 1955 is \$1,233.51. This facility enabled us to connect our 2 television stations which are a distance of 160 miles apart, and shows that our costs average \$6.85 per airline-mile per month.

If you base the cost on the actual length of the system, which is 120 miles, the operating cost is \$10.28 per mile per month. These costs are based upon an operating period which is unlimited, or 24 hours per day, as opposed to A. T. & T. tariff which is established on 8 hours per day. For the purpose of comparing these operating costs to A. T. & T., we submit a letter from A. T. & T., dated March 10, 1955, wherein A. T. & T. submitted a quotation of approximately \$5,620 per month to give us a similar off-the-air pickup service between our Valley City station and our Minot station. We are unable to understand why A. T. & T. are allowed to charge a tariff of 400 percent greater for use of their facilities for the equivalent service, regardless of how de luxe their facilities may be.

The operating expenses of the private system which we have submitted herein, we will supply in affidavit form to your committee and we will submit it in maximum detail to the extent that we are confident that A. T. & T. will be unable to justify the tariff currently being charged.

We also invite your committee to designate an expert independent engineer whose testimony would be accepted by your committee and the FCC to come to North Dakota at our expense for the purpose of examining our system and examining our records.

Also enclosed find a copy of a letter from A. T. & T. dated August 12, 1955, wherein they set forth a quotation of "termination charges," were they to install a system to replace the private microwave, in which instance the termination charges that they request more than double total installation cost of the private system. While we operate our own private system within the State of North Dakota, we are still forced to contract with A. T. & T. for facilities between Minneapolis, Minn., and Fargo, N. Dak., to connect with the National networks. For this service we are forced to pay A. T. & T. approximately \$11,000 per month, and we are unable to obtain licenses to operate a private system in this area because the present FCC rules will not allow a private system to parallel a common carrier. Our other alternatives would be to take the so-called utility grade service from A. T. & T. between Minneapolis and Fargo and for this service (off the air from Minneapolis) A. T. & T. have submitted quotations of \$6,750 per month, plus an exorbitant termination fee of \$105,215. were we to drop the service. The amount of the termination charge would be reduced monthly over a period of 36 months.

In comparison, we could install and operate a private system between Minneapolis and Fargo, N. Dak., at a cost of less than \$2,000 per month, in comparison to A. T. & T. \$6,750 per month.

In reference to the above, we again request your assistance to cause the FCC to act on docket No. 11164, a petition of North Dakota Broadcasting Co., Inc., for a proposed rulemaking to allow private television intercity relay systems, notwithstanding availability of the common-carrier system.

We will sincerely appreciate your consideration of the facts submitted herein, and we hope that the evidence is sufficient to justify drastic action on the part of your committee in reference to these problems.

Respectfully yours,

JOHN W. BOLER,
President, North Dakota Broadcasting Co., Inc.

EXHIBIT No. 7

AMERICAN TELEPHONE & TELEGRAPH Co.,

LONG LINES DEPARTMENT,
Omaha, Nebr., March 10, 1955.

Mr. JOHN W. BOLER,
President, North Dakota Broadcasting Co.,
Fargo, N. Dak.

DEAR MR. BOLER: This is to confirm my telephone conversation with your Mr. William Hurley on March 10, 1955, regarding the provision of the off-the-air channel offerings from your station KXJB-TV at Valley City, to Minot and Bismarck, N. Dak.

For an off-the-air channel from your station KXJB-TV to Bismarck, the monthly charge would be \$2,660 and a minimum 3-year-term contract for \$48,900 would apply with a provision for service within 4 months from date of order.

For an off-the-air channel to both Bismarck and Minot from your station KXJB-TV, the monthly charge would be \$5,620 and a minimum 3-year-term contract for \$104,000 would apply with a provision for service of 5 months from date of order.

The above off-the-air arrangement involves the pickup of broadcast signals (video and audio) at a receiver and the transmission of these signals to the customer at a distant location.

It is to be understood that the quality or reliability of this off-the-air channel will be of lower caliber than a combined audio and video channel now furnished under the standard tariff offering and utilized by the major network.

The design of the physical facilities, e. g., the type of equipment, the spacing between relay towers, and the location of the pickup point, will be determined by the telephone company, reflecting to the fullest extent practicable the customer's views in each case.

The provision of all facilities, including the receiving equipment at the pickup point, will be the responsibility of the telephone company; except that the provision of all station equipment and station wiring, other than that necessary for the suitable termination of the channel facilities at your transmitting site will be your responsibility.

No central office operation, monitoring, or supervision will be provided.

Emergency power arrangements will be more limited than those furnished with regular interconnected facilities.

Channels for both monochrome and color services will be available.

The channels will be furnished for your full-time use, subject to release for maintenance.

Reasonable diligence will be exercised by the company in restoring service in the event of interruption or failures; it is expected that you will recognize the probability of greater delays than experienced with the normal directly connected facilities. No credit will be allowed for interruptions of less than 2 hours.

You will be responsible for making all arrangements with stations, networks, or other parties for the necessary authorizations for this off-the-air pickup and use for rebroadcast of television program material, and the telephone company shall be indemnified and saved harmless by you from any liability arising out of failure to make such arrangements.

If you have other questions regarding this service, we will be pleased to discuss them with you.

Yours very truly,

ARTHUR V. HOLMAN,
Communications Engineer.

EXHIBIT No. 8

AUGUST 1, 1955.

Mr. E. C. LAIRD, Jr.,
Vice President, American Telephone & Telegraph Co.,
Kansas City, Mo.

DEAR MR. LAIRD: In accordance with our most recent conversation in Chicago on July 27, you have agreed to submit a new tariff quotation for the "off the air" utility-grade microwave facilities for transmission of television programs from Minneapolis to Fargo, N. Dak. We would like to have this quotation include all of the terms and conditions immediately.

Will you also give us a quotation for facilities to extend the service from Fargo to Bismarck, N. Dak., and for further extension of service from Bismarck to Minot, N. Dak. In reference to these facilities, it is my understanding from information given to us by Vernon Holman, your district manager in Minneapolis, that "off the air" pickup in tandem is not practical; therefore, the facilities or service between Fargo and Bismarck and between Bismarck and Minot would have to be directly interconnected from city to city. If this is true, please give us the quotation for grade A facilities between Fargo, Bismarck, and Minot. If there is any alternative, please give us quotation for both grade A and utility grade service within the State of North Dakota, based on premise that we use "off the air" from Minneapolis.

It is imperative that we be advised when each type of service could be made available to us in all areas.

I recall that we made a request for quotation from one of your offices in a previous instance and you failed to submit the information for a period of 2 months. I trust that you will not find it necessary to delay submitting information requested herein. You have been apprised of our financial problems and it is important that we reduce our cost of "live" network facilities between Minneapolis and Fargo immediately. At the same time, we must know what alternatives we have to continue network service to Minot and to add our Bismarck station, which will go on the air October 1 of this year.

I will sincerely appreciate it if you can give me the information requested herein within the next 10 days.

Respectfully yours,

JOHN W. BOLER,
President, North Dakota Broadcasting Co., Inc.

EXHIBIT No. 9

AMERICAN TELEPHONE & TELEGRAPH Co.,
LONG LINES DEPARTMENT,
Omaha, Nebr., August 31, 1955.

MR. JOHN W. BOLER,
President, North Dakota Broadcasting Co.,
Fargo, N. Dak.

DEAR MR. BOLER: I believe that the attached diagrams will answer the questions covering charges for "off the air" television channels which were raised in your letter of August 26.

The television channels quoted in our letter of August 12 are shown schematically in figure 1. The signal of WCCO, Minneapolis, would be picked up at a point some 60 miles west of that city and carried by a 4-link microwave system to your Fargo studio. The charge quoted for this was \$6,025 per month. To carry the signal to Bismarck from the tower immediately south of Fargo would require a 7-link microwave system. The charge quoted for this was \$7,380 per month. To further carry the signal to Minot from a junction point near Woodworth (tower No. 5) would require a 3-link microwave system. The charge quoted for this was \$2,725 per month. The physical junction of these channels at the tower south of Fargo and at the tower near Woodworth would be necessary since, as has been explained to you, an unsatisfactory picture would result from an attempt to take "off the air" a signal from KXJB which had been derived from an "off the air" signal from WCCO. Likewise an unsatisfactory picture would result from an attempt to take "off the air" a signal from KBMB which had been derived from an "off the air" pickup.

In engineering these channels, the route to Bismarck was so chosen that the addition of both Bismarck and Minot could be made at the lowest total charges to you.

The service quoted to KFYZ is illustrated in figure 3. It provides for an "off the air" pickup of WDAY's signal. The pickup point would be near Valley City (tower No. 1) and a 4-link microwave system would be required to carry the signal to Bismarck. The relationship between charges of \$7,380 a month for a 7-link addition to an "off the air" channel and charges of \$4,640 for a 4-link "off the air" pickup and channel appear to us to be proper.

The quotation formerly made to you of \$3,890 for an "off the air" pickup and channel to Minot covered the arrangement shown schematically in figure 2. The signal from KXJB would be picked up at a point near Woodworth (tower No. 1) and carried by a 3-link microwave system to KCJB at Minot. The

difference between the charge for this pickup and channel and the charge for the extension channel to Minot as shown in figure 1 is occasioned primarily by the fact that in the latter case the tower near Woodworth would be already in existence as part of the Bismarck service. Taking this into consideration the relationship of the charges of \$3,890 and \$2,735 appears to be proper.

Yours very truly,

L. L. GADDIS.

(The attachments referred to follow:)

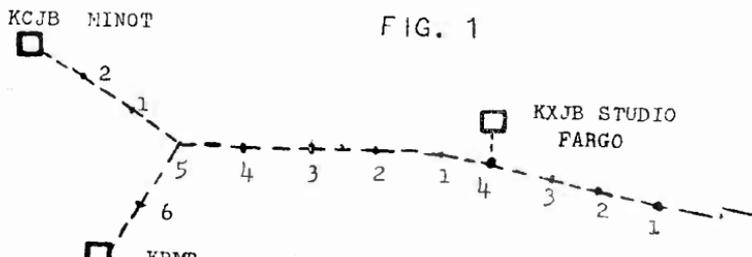


FIG. 1

WCCO
-1
MPLS

Pickup Point - Fargo 4 Links
\$6,025 per month
Extend to Bismarck 7 Links
\$7,380 per month
Extend to Fargo 3 Links
\$2,725 per month

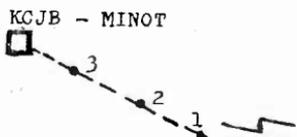


FIG. 2

Pickup Point - Minot 3 Links
\$3,890 per month

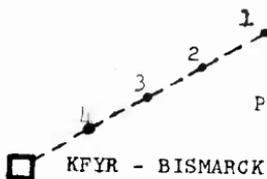


FIG. 3

Pickup Point - Bismarck 4 Links
\$4,640 per month

Mr. BOLER. I thank you sincerely for allowing me to present this statement.

Senator PAYNE. Do you have any questions? Yes, Mr. Boler.

Mr. BOLER. If I may, I would like to read the highlights of this rule change that we have. The present FCC regulation reads as follows:

Television intercity relay stations provide a means on an interim basis whereby television broadcast licensees may provide their own intercity television transmission service in connection with the operation of their television broadcast stations.

The provision for this service is a purely temporary measure, designed to assist the television industry until such time as adequate common carrier facilities are available. And the broadcaster who ventures into the business of relaying television programs by means of television intercity relay stations should plan to amortize their investment at the earliest possible date.

Now we would like that all amended to read as follows:

Television intercity relay stations provide a means on an interim basis whereby television broadcast licensees may provide their own intercity relay television transmission service, in connection with the operation of their television broadcast stations. Provided, however, that the Commission may grant authority to television broadcast licensees to operate intercity television transmission facilities where, in the opinion of the Commission, the cost of the common carrier facilities compared to the cost of constructing and operating a private intercity relay facility justifies such action.

This proviso is designed to permit the Commission, in its discretion, to authorize private intercity relay transmission facilities, to substitute the development of live television network service in the less densely populated areas of the country.

Senator PAYNE. That is "stimulate" instead of "substitute"?

Mr. BOLER. "Stimulate," I'm sorry.

We are operating a private relay system within the State of North Dakota, taking service from our station at Valley City to Minot, 183 miles away, and we have a similar installation serving our Bismarck station. We have been operating the Minot off-the-air pickup relay now since October 1954. In 1955 we kept a very accurate record of the operating cost of this relay system and found that our average cost per month was \$1,248. This information is contained in an exhibit here in the form of a letter that I wrote to Senator Magnuson. A. T. & T. gave me a quotation of \$5,900 a month for a similar off-the-air service to Minot.

Now that is the difference between their tariff and what we can actually operate our own system. And we can provide, ourselves, a better quality service than A. T. & T. does. We have proven that.

Senator PAYNE. You can provide it 24 hours a day whereas they provide only 8?

Mr. BOLER. That is right, they provide only 8.

Now, if A. T. & T. even knocked off the 8 hours' minimum service charge, and at the present tariff allowed 24-hour service, that would be some relief. I mean if we wanted to open up at 7 o'clock in the morning, which we would like to do in October, and take service—take network service—our bill to A. T. & T. would be \$15,000 to \$16,000 a month; whereas now even opening up and taking network service as early as 10:30, it has gotten up to—in February it was \$14,000. And we simply cannot afford to take network service earlier in view of the tariff.

Senator PAYNE. In other words, what you are asking for is consideration to be given, very similar to that which an individual enjoys.

Let's assume that a utility, a water company, is furnishing water service in a community and their mains end at a certain point. The individual who is building, let's say, a mile from the end of that point wants service. But the cost of putting that service from the end of that installation out to your installation has to be measured against whether or not you can drill and establish your own system of providing water at a more reasonable rate than what the utility would have to charge you for putting the line out, amortizing the cost over a period of time, and the service that goes with it.

Mr. BOLER. Yes.

Senator PAYNE. Isn't it somewhat similar?

Mr. BOLER. It is somewhat similar to that. I would like to describe it in a different way.

The number of customers at the other end of that line would have a bearing as to how much the tariff can carry to bring the service out there. Now our problem in North Dakota is that the total population of the State is some 660,000. The national advertiser is never going to pay any more than a certain number of dollars per thousand television homes.

We probably have the longest hop between cities—intercity system, between Minnesota, or Minneapolis and North Dakota—of any place in the United States. And then on top of that—I mean when you get out there, if there was a couple of million people that would be something else again, but instead of that you have that tremendous long haul and when you get out there you have a limit to the circulation that we will ever be able to develop. I do not feel like operating television stations for the benefit of the A. T. & T. and the stockholders.

Actually, the people in North Dakota are not only entitled to service but they are entitled to a return on their investment.

Now A. T. & T. are actually hiding behind this FCC rule now. I mean they hide behind it—they do not come up with a proposition to give service, because they do not have to. The FCC rules: We cannot parallel. I will just bet you cannot find a broadcaster that ever has gotten a letter out of A. T. & T. in reference to whether or not they would give them service, and so forth. So this rule change, No. 1, I think would certainly have an effect as far as A. T. & T.'s—what I call their arrogance right now. In other words, if a broadcaster is in business—I have been in business in radio and television now, all told about 25 years. And the problem in North Dakota has always been the A. T. & T. charges as far as radio is concerned. I mean we have to pay \$910 a month, for example—our Minot station has to bring CBS network service from Jamestown to Minot, \$910 a month. This is for class C service, not class A service. We cannot get good quality from a symphony when it is on, because it is their cheaper service. So it has been our problem in radio, but of course it is 10 times with television because their tariff is that much higher.

Senator PAYNE. Any questions?

Mr. Cox. Yes. When did you install your private relay system from Valley City to Bismarck?

Mr. BOLER. We put that in in the fall of 1955. We went on with it on the 19th of November 1955.

Mr. Cox. Have your cost experiences there been comparable?

Mr. BOLER. Yes, they have. We use the same type of equipment and we have very few outages; and a comparison of our picture in

Bismarck to our competitor taking service from A. T. & T. is tremendously different. We have a beautiful picture on our system, on our own system.

Mr. COX. It is a better picture than he is getting through their off-the-air system.

Mr. BOLER. That is right. There are technical reasons for it. Actually, A. T. & T. didn't have any experience in this off-the-air pickup, and they are using a different type of equipment than they use in their normal installation.

Mr. COX. Is the equipment that you use in your system comparable to that that they use in their interconnecting facilities?

Mr. BOLER. Yes, they could buy the same type of equipment we have if they wanted to.

Mr. COX. In your letter to Senator Magnuson of January 23, were the figures which you quote there for installation cost and operating cost only for the link between Valley City and Minot?

Mr. BOLER. Yes; that is right.

Mr. COX. Now, are the figures which you cite for the monthly charges of A. T. & T. for that service, or do they also include the service to Bismarck.

Mr. BOLER. Oh, no, they are just for that service. They wanted another \$2,700—\$2,600 or \$2,700 a month to feed Bismarck, if they were feeding Bismarck and Minot also.

There is one exhibit, the last exhibit, that is in here, the last page. It shows the telephone company's proposition when they were going to do an off-the-air out of Minneapolis, and then have it direct to Minot and to Bismarck. I believe that would explain it to you better than I can. It is the last page.

Mr. COX. You attached to your letter to Senator Magnuson a copy of a letter of March 10, 1955, to you from Mr. Arthur V. Holman. I don't know whether that is an exhibit to your statement here. Which exhibit is that?

Mr. BOLER. Exhibit 7.

Mr. COX. Now, in that letter they quote a monthly charge of \$2,660 for the service from Valley City to Bismarck; is that right?

Mr. BOLER. That is right.

Mr. COX. And then an additional charge of \$3,890 for the service from Valley City to Minot?

Mr. BOLER. Yes.

Mr. COX. So that it is—those figures are the ones that would be compared, then, with your experience on your Minot service?

Mr. BOLER. Well, yes; that is right. The \$5,900 I referred to is if they were only serving Minot.

Mr. COX. Only Minot.

Mr. BOLER. Yes.

Mr. COX. I see.

Mr. BOLER. At that time, our Bismarck station, we didn't even have the permit. So that was prior to the time that we applied for our own permit to serve Minot. You see what they have done, as you will see on this map we have here; the reason for the difference in the cost where they are serving two stations, that they would branch off part way and go into Bismarck thereby cutting down the miles. That is the reason for the discrepancy in the figures.

Mr. COX. You say something about the quality of your picture as compared to the service of your competitor in Minot. What have your respective experiences been on outages?

Mr. BOLER. Well, I would say that theirs has been 5 to 1 over ours. Mr. COX. Does this involve not only interruption of service to the public, but loss of revenue to the station?

Mr. BOLER. Yes, a very substantial loss of revenue.

Mr. COX. As I understand their terms, unless this interruption lasts for 2 hours it does not, however, result in any reduction of the charge to you?

Mr. BOLER. That is right. They don't even have to give you any credit.

And the other thing: Without any guaranties as to service or quality or anything else, they demand a 3-year contract, with a penalty on cancellation, and that is reducible among the number of months of service. In other words, if you signed up with A. T. & T. and took their service for 6 or 8 months and then couldn't take it any longer for one reason or another, you would still have to pay the full 3-year contract.

Mr. COX. After the 3 years has elapsed, however, that ceases to be.

Mr. BOLER. Yes; that is right.

In this letter from Holman—this same exhibit, March 10—they don't make any guaranties, or any commitments. I mean they decide everything. They even tell you what kind of buildings to put up, what kind of towers to put up, and everything else. I mean, it is completely one-sided.

Mr. COX. How does the system which you proposed from Minneapolis to Fargo, which I understand you engineered—

Mr. BOLER. Yes.

Mr. COX. Compare in terms of number of towers and the equipment to be employed with the system which the telephone company has actually installed?

Mr. BOLER. I believe they are currently using 7 relay stations and our proposal includes 9.

Mr. COX. You actually have more stations?

Mr. BOLER. We would actually have more stations, that is right.

Mr. COX. Now, is the equipment at each of those stations comparable in your system with that which they have in use?

Mr. BOLER. We don't know what they have inside of those buildings; what they are using now. That is why I say I would like to have you come out and see what is in the buildings. They are using the D-2 equipment, I presume, like they use on their main line. But they are just serving WDAY at Fargo, and ourselves. So the equipment that we would put in, I presume, would not be similar equipment they have now for their city to city.

Mr. COX. Theirs is multichannel equipment?

Mr. BOLER. Yes.

Mr. COX. Would your equipment be limited to serving just one channel?

Mr. BOLER. Yes; that is right.

However, manufacturers are talking about a traveling wave guide tube that may be put on the market within a matter of a few months wherein more than one network can be carried on this type of equip-

ment. There are 2 manufacturers that are talking about a traveling wave guide tube that will actually carry 2 networks, and the cost is not too much greater than the present tube that is used.

Mr. Cox. At present, however, the system that you would propose to install between Minneapolis and Fargo would simply serve your station?

Mr. BOLER. Yes; that is correct.

Mr. Cox. That would mean that WDAY, your competitor, would either have to install a similar system of its own or continue to bear the entire charge of the telephone company's tariff?

Mr. BOLER. That is right, except if we were allowed to, WDAY management will join us and we will do like A. T. & T. We will put in the same buildings and same towers; put in an installation. We can do it cheaper as a matter of fact, and the management of the station have said that if anything can be done on this—you can get any relief—we will join you in establishing a system.

Mr. Cox. Have they supported your position in this proceeding before the FCC?

Mr. BOLER. Yes. They have a letter in here giving me the information as to what they have paid the telephone company, and they are 100 percent behind it.

Mr. Cox. Do I understand that there is a channel available, according to your engineers, to provide this service for you between Minneapolis and Fargo?

Mr. BOLER. Yes; there is.

Mr. Cox. Would that be true also of WDAY?

Mr. BOLER. Yes.

Mr. Cox. What is the basis of your estimate of your installation cost, this engineering research that was done some years ago?

Mr. BOLER. Yes. We know, we have got new prices. Our figures that we have submitted herein are current bids from companies now. There are two different companies that have facilities that would serve our purpose, and these prices are based on the present market price.

Mr. Cox. Do you have any basis for this estimate, I think you give here, of less than half a million dollars for the cost of A. T. & T. and the installation?

Mr. BOLER. The only basis I have is that I have gone out and looked at one of their installations from the outside. They have two rows of wire fence around it like a concentration camp, and you cannot get any closer to it.

I can only go by the size of the building as to how much equipment can actually be in there. And the type of a tower that they use. We have no way of estimating the cost of the type of an antenna that they use—transmitting and receiving antenna that they use—because it is a privately manufactured one by A. T. & T. So our figures here are merely rough guesses.

Mr. Cox. Now, are the telephone company's rates to you based on the same air-mile rate as applied to other stations?

Mr. BOLER. Yes; that is as we understand it.

Mr. Cox. In other words, you and WDAY pay a rate based on the mileage from Fargo to Minneapolis?

Mr. BOLER. That is correct.

Mr. Cox. Multiplied by a rate which is more or less standard?

Mr. BOLER. That is correct.

Mr. COX. And the greater burden on this on your operations is occasioned by the combination of the distance involved and the low set circulation which you can possibly achieve in your area?

Mr. BOLER. That is right. The discrepancy in the amount that we paid—they paid \$204,000 as against our \$234,000—is that we had more network service in the morning than they did. In other words, we had to take more hours of service, and that is why we actually paid A. T. & T. more money because we got beyond that 8 hours. As a matter of fact, we took 11 hours of service.

Mr. COX. Now, when the Commission appeared before the committee, and were asked about this matter, I believe it was Commissioner Bartley indicated, of course, that they had some concern about the development of transcontinental common-carrier links for general use. Do you know whether the telephone company has ever indicated any plans, or any interest, in the establishment of a transcontinental link running west from Minneapolis through North Dakota, Montana, and into the Pacific Northwest?

Mr. BOLER. I think the installation, as it is with the addition of equipment, would accommodate other types of service. But at the present time, to the best of my knowledge, the only thing they have got in those buildings is the necessary equipment to serve television.

Mr. COX. They are not carrying any telephone circuits?

Mr. BOLER. As I understand they are carrying nothing more than the service to our two stations.

Mr. COX. So that substantially you bear the entire cost.

Mr. BOLER. That is correct, sir.

Mr. COX. Of the service.

Mr. BOLER. That is why I say, I would like to have someone come out there and actually examine that installation. They are getting the same tariff as they are between San Francisco and New York where they are carrying hundreds and hundreds of telephone messages and they have got an installation—maybe each installation cost them \$150,000, but I know that these installations out there did not.

I don't want to get into the common-carrier business. I really don't. I mean I am all for the telephone company giving the service. But their attitude is entirely wrong, as a public utility with the protection they have to give public service. Their attitude is wrong, and the rules that exist now are not sufficient. There hasn't been an investigation for years of A. T. & T. And believe me, one is long overdue. I feel that if there was an investigation made that you would find a tremendous lot wrong with their whole tariff setup as far as television is concerned.

Mr. COX. I think the Commission testimony indicated that this proceeding involving the rates of the telephone company has been in the process for over 7 years.

Mr. BOLER. That is right.

Mr. COX. Without a determination. Although I believe they indicated yesterday that they expected to have some conclusions on that in the near future, and the same they said was true of your petition, or of the general proceeding, at least, with regard to private intercity relays.

Mr. BOLER. Those reports have been being made repetitiously over quite a long period of time. Now, I am not criticizing the FCC. I feel that it is lack of budget, perhaps.

Mr. Cox. To the best of your knowledge, though, no one either in the industry or in the FCC is in a position to know what the installation costs or the operating expenses, properly attributable to the television services they are providing, really are?

Mr. BOLER. To the best of my knowledge, that is the true situation—that is the situation.

Senator PAYNE. Unless you have something else that you would like to offer, we thank you very much indeed, Mr. Boler, for your statement and the information that you have given.

Mr. BOLER. Thank you very much for allowing me.

Senator PAYNE. Without objection there will be placed in the record a statement submitted by Miss Elizabeth A. Smart in behalf of the National Woman's Christian Temperance Union in support of Senate bill 825.

(This statement pertains to network regulation and is therefore printed in the volume on Network Practices.)

(COMMITTEE NOTE: For other testimony with respect to private inter-city relays and A. T. & T. rates, see statement of Murray Carpenter, W-TWO, Bangor, Maine, which is printed in the volume of Network Practices.)

Senator PAYNE. And the record will remain open until September 25 for the introduction of any statements that anybody might wish to give before the record is complete.

And with the exception of hearings that may be scheduled with regard to legislation concerning political time, this will conclude the hearings at this time.

(Whereupon, at 11:21 a. m., the committee adjourned.)

APPENDIX

ADDITIONAL MATERIALS ON ALLOCATIONS INSERTED INTO RECORD IN LATER PHASES OF THE HEARINGS

A number of letters and written statements relating to allocations matters were received by the committee and ordered inserted in the record during later phases of the inquiry concerning subscription television and network practices. These are printed in this appendix in order to bring them together with the other testimony and materials on the allocations problem. These materials are set forth below in the order in which they were inserted in the record. In each case the date on which they were thus inserted is shown, so that reference can be made, if desired, to the point at which they were actually received.

[Inserted on April 23, 1956]

ADDITIONAL TESTIMONY OF NORWOOD J. PATTERSON, GENERAL MANAGER, KKSAN TELEVISION STATION, CHANNEL 32, SAN FRANCISCO, CALIF.

In response to your question relative to the economic conditions imposed upon a station operator, should the Commission deintermix markets of the United States I would like to make the following comments:

Since the principal manufacturers of television transmitting equipment, General Electric and RCA, have millions of dollars at stake in the future of UHF television, I am confident that they would be very eager to operate as an intermediary between stations in exchange of VHF equipment for UHF equipment where the occasion requires under deintermixture and the opposite when such is required.

As an example we have received an agreement with the GE Co., wherein if under deintermixture San Francisco is made a VHF market that they will exchange used VHF equipment for our used UHF equipment, thus you can readily see that the GE Co. will have on hand used UHF equipment that they could again exchange to a station in a market where a VHF facility was taken out and made all UHF. Thus you can see that if the manufacturers, and I am sure that they would be glad to, would be an intermediary, they could exchange equipment between TV stations, thus not imposing an unreasonable economic situation on either manufacturer or the stations involved in deintermixture. Furthermore, I am sure that most television stations would be agreeable to paying a small charge to the manufacturer for reconditioning the equipment on an exchange basis. Thus you can see under this plan no adverse economic situation is presented upon any individual.

[Inserted on April 23, 1956]

STATEMENT OF LOUIS LUBIN, CHAIRMAN, BUSINESSMEN'S COUNCIL OF AMERICANS FOR DEMOCRATIC ACTION

I am Louis Lubin, chairman, Businessmen's Council of Americans for Democratic Action. I submit this statement on behalf of the council.

The Businessmen's Council of ADA is an organization of businessmen concerned with giving expression to the liberal point of view within the business community. We believe that there is a liberal view on the question of this

Nation's television policy. The views set forth in this statement represent a cross-section of the council's opinion and experience rather than the view of any individual member.

The present availability of usable television stations and networks is now wholly inadequate for free competition, and flexible use of this powerful advertising medium by smaller and medium size, as well as large, businesses. Advertisers must buy low-cost mass audiences in order for television advertising to be profitable. On this basis, the number of VHF stations with large audiences is so few that their time is largely sold out and their rates and terms are no longer determined by competition, which is essential to a self-regulating industry. There are only 12 markets in the United States with 4 or more stations, and only another 22 markets with 3 stations in the same VHF or UHF frequency band. Only 57 additional markets have a choice of 2 stations in the same frequency band.

This lack of usable stations has similarly limited advertisers' choice to only two live networks which can give reasonably adequate national coverage. These two networks are sold out of evening time. Like the stations, the networks have taken advantage of this shortage to inflate rates, take over control of programming by selling programs in forced combination with their time, improperly influence local affiliations, promote their film, talent, and station representative subsidiaries, etc.

These conditions have resulted in a very high concentration of television advertising usage by a relatively small number of very large businesses. These large advertisers are able to preempt preferred times, programs, and stations under highly favorable quantity discounts and terms of options and renewals with which smaller advertisers cannot compete. The net effect is that these few large television advertisers can buy advertising audiences in terms of cost per viewer per minute of commercial time that may be as little as one-tenth of the net circulation cost of smaller advertisers who can only secure small audience programs at high open rates.

We favor the restoration of free and open media competition as the only basic solution to this situation. In our opinion, there is need for at least 4 national live networks, supplemented by additional independent stations in the 125 largest markets.

We would first favor a high level study by the Congress of the present and future needs of advertisers as well as all other groups in the population. We favor the development of other forms of economic support for broadcasting, such as pay television, provided they will be assigned additional, exclusively licensed channels so as not to displace or restrict the growth of free commercial television.

In our opinion, it will require at least as many as the 70 UHF channels to provide an adequate television communication system for the total needs of business as well as other services. The ultimate gradual transfer of all broadcasting to the UHF band should be considered. As an interim measure only, we would favor deintermixture of the UHF-VHF markets, each on its own merits.

Finally, we deplore the fact that the Senate committee's ad hoc group of advisers does not include representatives of business, journalism, publishing, entertainment, education, social and political institutions, etc., who are actual or potential users of television, as opposed to its present makeup which is dominated by the representatives of the networks, and station owners who have large vested interests in maintaining the present scarcity of facilities.

We would appreciate it if this statement could be made a part of your committee's record in this matter.

[Inserted on April 23, 1956]

STATEMENT OF DR. EDWARD C. LAMBERT, DIRECTOR OF TELEVISION OF THE UNIVERSITY OF MISSOURI

This Senate committee now has before it the perplexing and difficult problems of what legislation, if any, should be enacted by the Congress of the United States to assist in alleviating the difficult problems now confronting the television industry. The particular difficulties to which we refer are the financial and operational difficulties facing the ultra high frequency television stations.

The University of Missouri owns television station KOMU-TV, which operates on VHF channel 8 with 250-kilowatt power at a height above average terrain of 794 feet; the station is located in the center of the State, at Columbia, Mo. It is not the university's purpose or interest to take sides in the great dispute

now going on between various segments of the industry, nor is it the university's position that UHF generally is not entitled to any relief. The university feels that the hearings being conducted by this committee should quite properly seek means of solving the difficulties of the UHF operators generally.

There are some disturbing suggestions, however, which are being made to this committee, suggestions which we at the University of Missouri feel are very shortsighted and improperly conceived. Specifically, we refer to the position of some UHF operators who urge that the coverage of all television stations should be limited to serving the principal community or possibly some undefined retail trading area around such a community. Part and parcel of this proposal is the plea made by some, that stations should serve almost solely as an outlet for local self-expression—indeed, that our entire television system should be nothing more than “hometown” television.

One group which expressed this view was the UHF Industry Coordinating Committee, through its chairman, Mr. Harold H. Thoms, on February 27, 1956. He specifically decried the development of “superpower, supermarket” stations and stated that stations with wide area coverage cannot serve the principal and primary purpose of a television station, namely, serving local needs. So also the Committee for Hometown Television, Inc., took a similar position, through its president, Mr. Philip Merryman, on February 28, 1956. It is interesting to note that both of these individuals, Mr. Merryman and Mr. Thoms, request that the solution to their own particular local problems is the assignment of an additional VHF channel, through a reduction in television station separations, thus permitting “drop-ins” of additional VHF channels.

It is respectfully suggested to this committee that the proposals of these groups constitute very serious threats to the development of a truly nationwide television service and overlook important considerations. The operation of station KOMU-TV by the University of Missouri, it is believed, points out the fallacies inherent in the position taken by such groups. The fallacy is this—there are a number of stations in the country which are specifically designed to afford wide area coverage so as to serve specific and important needs.

A brief description of the programs offered by KOMU-TV will be set forth here, so that this committee can get some understanding of the needs for area-wide service such as provided by KOMU-TV. Station KOMU-TV operates commercially, and it utilizes the proceeds received from its commercial programming to help defray the cost of operation and help to defray the cost of producing educational and other public-service programs. KOMU-TV is a network affiliate of the National Broadcasting Co. and the American Broadcasting Co. Knowing that the networks will explain and justify their position, we will concentrate here solely on describing locally produced programs.

KOMU-TV offers the usual news, weather, and sports programs around supper-time and also again around 10 o'clock each evening. From 5 to 6 p. m. daily, Monday through Friday, there is a program entitled “Time for Adventure,” which is designed to entertain and also educate the youngsters. Also on Monday evening, there is a half-hour program entitled “Missouri Forum,” which is a panel-type program featuring important public figures, including, among others, Senator Stuart Symington, Senator Thomas C. Hennings, Senator Hubert Humphrey, and Lt. Gov. James Blair. This program is specifically designed to reach as large an audience as possible and to bring before the citizens of the State of Missouri important and controversial issues, featuring the finest possible advocates representing all sides.

Also, once a month KOMU-TV presents Mizzou Riview, which is an hour-long “spectacular.” Here again the purpose of this program is to bring entertainment and enjoyment to as many Missourians as possible and to acquaint them with the functions and activities of the university. Once a week, normally on Tuesday evening, the university presents a farm show, R. F. D., produced and presented by the university's college of agriculture and designed to bring information and education to the farmers and rural population of Missouri. On Wednesday evenings, KOMU-TV presents a program entitled “Not in Our Stars,” which features an outstanding university psychologist dealing with current topics of interest to the adult audience. Also the station presents a weekly program entitled “Sewing Basket,” a program designed to present sewing hints for the ladies.

Occasionally, KOMU-TV presents an afternoon musical program featuring an instrumental group from nearby Christian College. Right now, a series of afternoon programs are being produced for the League of Women Voters, the

purpose being to educate the public as to voting procedure, and to introduce the personalities and issues involved in this election year. Later, a series of programs will be presented by the Internal Revenue Service for the purpose of educating the public on the proper procedure for filing of income tax forms. All of these programs are designed to reach as large an audience as possible.

Another program now appearing is the M. U. Farm and Home Show, which is produced by the college of agriculture and its extension division. The first half of this program is devoted to developing better farm practices and methods. The second half of the program is designed to teach both city and farm housewives the techniques of better living. In both of these cases, the university, through its extension service, accomplishes a major educational objective; but it can do so only by utilizing broad coverage television so as to reach the rural and small town population.

The use of television as a means of stimulating adult education and as a means of bringing interesting and educational programs into the home has not been fully developed by any means. The university is constantly experimenting with new techniques and further expanding its educational programming. For example, the university is now working on a project, whereby KOMU-TV will be originating 5 days a week, high school classes in Missouri history and plane geometry. These programs will be produced, if the project goes through, for the schools in 30 counties served by the station. The courses will be offered for credit in the participating schools, and also for credit to those interested in high school extension courses; they will be noncredit remedial courses for colleges throughout the area. Obviously, the use of television for such purposes, however, requires that the programs reach as many people as possible.

Of course, there are many other programs offered by KOMU-TV which are important to the State of Missouri and its citizens. Only a few will be mentioned, so as not to burden this record. The State conservation commission has a half hour program on Thursday evening, entitled "Sportsman's Club," which concerns various facets of the State's wildlife program. The university has a number of local activities which it televises on a regular basis. For example, every Friday night, the station carries the program Show Case. Each week a different university department or division is featured. This program shows the people of the State their university in action.

There are a number of special functions which occur during the year, which also are televised. For example, the entire university commencement exercise is carried. Also during March of this year, there will be an hour long student production, Savitar Frolics. Television offers a unique means of bringing this popular student program to the entire State.

These programs, as well as the regular features described above, constitute an important aspect of the university's efforts to discharge its educational objective. The university feels strongly that television affords a marvelous and unlimited medium for the discharge of the university's functions. Wide area coverage is essential to an effective utilization of the facilities and a corresponding effective and efficient accomplishment of the objectives. We are confident that this committee will carefully study the various programs and views presented to it. We are further confident that no unfortunate or ill-advised action will be taken, the effect of which will be to seriously impair the ability of station KOMU-TV to discharge effectively its educational objectives. Station KOMU-TV is but one station out of many which, in a unique way, is serving the needs of a large area. Wide area coverage is essential if such stations are to meet these compelling needs.

[Inserted on May 15, 1956]

STATEMENT OF THE HELM COAL CO., PERMITTEE OF UHF STATION WNOW-TV, YORK, PA.; SUSQUEHANNA BROADCASTING CO., PERMITTEE OF UHF STATION WSBA-TV, YORK, PA.; ROSSMOYNE CORP., PERMITTEE OF UHF STATION WVMB-TV, HARRISBURG, PA.; WHP, INC., PERMITTEE OF STATION WHP-TV, HARRISBURG, PA.; AND THE PATRIOT-NEWS CO., PERMITTEE OF STATION WTPA, HARRISBURG, PA.

Deintermixture of VHF and UHF channels to the greatest extent possible without disrupting existing television operations has been urged in very many of the comments and reply comments which have been filed in the Commission's general rulemaking proceeding. Most of the major organizations in the industry have endorsed deintermixture of one sort or another, including the American Broadcasting Co., National Broadcasting Co., Radio Corporation of America, Columbia

Broadcasting System, General Electric Co., Storer Broadcasting Co., Westinghouse, and General Teleradio.

The problems confronting UHF broadcasters are so well known to this committee that discussion would serve no useful purpose. In short, intermixture has not worked. It has not resulted in the development of a fully competitive nationwide television service. The south-central Pennsylvania area is an excellent example of the shortcomings of the practice of intermixture of VHF and UHF channels.

At the present time the vast south-central Pennsylvania area, consisting of 18 counties with a total population in excess of 2 million, and including the cities of Harrisburg, York, Reading, Lebanon, Lancaster, Chambersburg, Lewisport, Sunbury, Shamokin, and Hazleton, has 14 UHF allocations and only 1 VHF allocation, channel 8 in Lancaster. Six UHF stations are now on the air in the area—3 in Harrisburg, 2 in York, and 1 in Reading. Three other UHF stations were formerly on the air in the same area, but for economic reasons have been forced to cease operations. These are stations WEEU-TV, Reading (on air April 15, 1953, off air June 30, 1955), WCIA-TV, Chambersburg (on air September 3, 1953, off air July 14, 1954), and WLBR-TV, Lebanon (on air October 22, 1953, off air October 16, 1954). WLBR-TV hopes to resume operations under new management (as a satellite or quasi-satellite of VHF station WFIL-TV, Philadelphia). Three other UHF construction permits have been issued for the same area, one of which is still outstanding.

By far the greatest obstacle to the development of television as a medium of local expression in the south-central Pennsylvania region is the existence in that otherwise UHF-only area of a maximum power VHF television station, WGAL-TV. The history of television operations in the region discloses how the Commission's present VHF allocations and rules have been used—or more accurately "misused"—to place multiple UHF stations at an insuperable disadvantage in competing with a single, high-powered, regional VHF station.

Station WGAL-TV, in Lancaster, Pa., was fortunate enough to obtain a VHF assignment prior to the television freeze. Three of the five Harrisburg and York UHF stations and two Reading UHF stations were also applicants for VHF stations in their respective cities prior to the freeze, but unlike WGAL-TV were held up in their VHF applications because there were more applicants than channels in Harrisburg, York, and Reading. The present allocation plan, issued after the freeze, did not assign VHF channels to Harrisburg and York, thereby making it necessary for the Harrisburg and York stations either to operate on UHF or forego bringing television to their cities. VHF, however, was continued in Lancaster by moving prefreeze channel 8 from York to Lancaster for use by WGAL-TV. Originally WGAL-TV operated on channel 4 as a community station. In its sixth report and order which terminated the freeze the Commission proposed to shift WGAL-TV to channel 8 under a special temporary authorization, operating with a relatively modest power and antenna height from a site close to Lancaster. In connection with this change in frequency WGAL-TV filed an application for authority to increase its power and antenna height to the maximum permissible; that is, to 316 kilowatts and 1,000 feet above average terrain, and to change its transmitter location. This application was granted January 28, 1954, and WGAL-TV began operating with these new facilities on June 28, 1954. The new transmitter location of WGAL-TV was more than 15 miles closer to York, Pa., than its original transmitter site, almost 14 miles closer to Harrisburg, and more than 16.5 miles more distant from Lancaster. As the following table shows, the new operation of WGAL-TV resulted in a substantial increase in the strength of the signals which were received in York and Harrisburg, Pa.

Field intensities delivered to the most distant parts of cities from station WGAL-TV, before and after June 28, 1954

City	Before June 28, 1954	After June 28, 1954
York	56.2 dbu	104.0 dbu.
Harrisburg	48.1 dbu	90.8 dbu.
Lancaster	103.6 dbu	92.5 dbu.

It will be noted that the increased WGAL-TV signal is stronger in York than it is in Lancaster, and in Harrisburg it is only insignificantly weaker than in

Lancaster. It is also to be noted that with the increased power and height, WGAL-TV provides a weaker signal to Lancaster than with its old station, solely because it has moved its transmitter closer to York and Harrisburg so as to serve those cities.

It is clear that WGAL-TV's primary, if not sole, purpose in seeking greater power and greater height and a new location for its antenna was to establish an areawide coverage embracing Harrisburg and York, as well as other cities, rather than to improve its service to Lancaster. Advertisements of WGAL-TV in the trade press have emphasized that this was its purpose and intention. These advertisements include claims that WGAL-TV serves Harrisburg, York, Lebanon, and Reading as well as Lancaster. WGAL-TV boldly emphasizes that in addition to its entrenched position gained through 7 years of monopoly operation it has a service area far greater than that of any of its present UHF competitors in York, Harrisburg, and Reading. Perhaps the best evidence of the adverse effect which WGAL-TV, with its areawide coverage, has had upon UHF operations and growth is the fact that, since WGAL-TV has increased its power and tower height, 3 UHF stations in the area have been forced to sign off the air, and permittees of 3 other stations in the same area have never gone on the air.

WGAL-TV has a primary affiliation with NBC and a secondary affiliation with CBS. Because of its powerful signal and top network programs, well over half of the television homes in York are tuned to WGAL-TV during all time segments. The dominance of WGAL-TV in the York and Harrisburg markets, as well as in other south-central Pennsylvania markets, is precisely what the York and Harrisburg UHF stations predicted when on March 1, 1954, they filed with the Commission a joint petition for rehearing of the then recently granted application to move the WGAL-TV transmitter closer to York and Harrisburg and to make it a regional station by increasing antenna height and power. This joint petition was subsequently denied. *In re WGAL, Inc.* (10 Pike & Fischer R. R. 1209 (1954)).

With WGAL-TV operating as it does as a broad, regional station, the networks and their advertisers now have the opportunity of selecting merely one station to reach all of south-central Pennsylvania, instead of several UHF community-type stations in separate cities. For example, station WHP-TV, a CBS affiliate in Harrisburg, does not carry the following top CBS programs though station WGAL-TV does: *Toast of the Town*, *Arthur Godfrey's Talent Scouts*, *I Love Lucy*, and the *Jack Benny Show*.

The Commission has heretofore made allocations of television channels primarily to communities—not to areas and regions. Fundamentally, therefore, the assignment plan requires that a station primarily serve a given community, meet its local needs and be a source of local expression. In their joint petition for rehearing of the WGAL-TV grant, and also in their statement before the Potter committee, the York and Harrisburg UHF permittees pointed out that WGAL-TV's purpose in seeking greater power and tower height and a new antenna location was to establish areawide coverage embracing York, Harrisburg, and other cities, rather than to improve its service to Lancaster. The UHF stations also pointed out that the WGAL-TV grant severely limited the opportunity of UHF stations in the area to secure network affiliations and national spot revenue. Unfortunately, these predictions have been proved 100 percent accurate. Before the WGAL-TV grant, WTPA in Harrisburg had an NBC affiliation, which it has now lost to WGAL-TV. In fact, there is only one NBC affiliate in the entire York-Harrisburg-Lancaster-Lebanon-Reading area, WGAL-TV.

Channel 8 should be deleted from Lancaster, leaving south-central Pennsylvania a large, populous, UHF-only "island." Among the reasons for this move are the following:

(a) WGAL-TV could continue to operate on a UHF channel. Channel 21, allocated to Lancaster, is presently unassigned. Other UHF channels are also available.

(b) There would be little, if any, inconvenience to the general public resulting from the deletion of channel 8, since there is a high degree of all-channel set saturation in the entire area now served by WGAL-TV.

(c) There would be no television "white area" created by the suggested channel move, since all of the WGAL-TV grade A service area receives grade A service from at least one UHF station and since all of the present WGAL-TV grade B service area is within the grade B service area of at least one UHF or VHF station. All but the extreme southern and southeastern portions of the WGAL-TV grade B service area receive grade A or grade B service from one

or more UHF stations, while the extreme southern and southeastern portions of the WGAL-TV grade B service area receive grade A service from VHF stations in Baltimore, Philadelphia, and Wilmington.

(d) If deintermixture is effected in south-central Pennsylvania, all UHF stations in the area will be able to compete on an equal basis for network affiliations and programs; local, regional, and national advertisers; for listeners; for syndicated film; for local talent; for news services; and for personnel.

(e) The deletion of channel 8 would encourage the now defunct UHF stations in Lebanon, Reading, and Chambersburg to return to the air. There would also be greater incentive to apply for and construct additional UHF stations in Hazleton, Lancaster, Lewistown, and Sunbury on presently available UHF channels.

[Inserted on May 15, 1956]

STATEMENT BY PLAINS TELEVISION CORP., LICENSEE OF UHF TELEVISION STATION
WICS, SPRINGFIELD, ILL.

WICS, a UHF television station in Springfield, Ill., has been on the air continuously since September 17, 1953. On March 30, 1955, WICS filed with the Federal Communications Commission a petition for rulemaking looking toward the elimination of intermixture in Springfield, either by reserving for educational use the VHF channel allocated to that city (channel 2) or by the reallocation of channel 2 from Springfield to St. Louis, Mo., and the substitution of a new UHF channel in Springfield.

On November 10, 1955, the Commission dismissed some 35 deintermixture petitions without prejudice to their subsequent reconsideration on the merits in a general rulemaking proceeding ordered that same day. The WICS petition was not considered on its overall merits. The Commission, as Chairman McConaughy told you on February 20, 1956, has not yet rejected deintermixture. WICS filed comments in the Commission's general rulemaking proceeding on December 15, 1955, and reply comments on February 8, 1956.

Deintermixture of VHF and UHF channels to the greatest extent possible without disrupting existing television operations has been urged in very many of the comments and reply comments which have been filed in the Commission's general rule-making proceeding. Most of the major organizations in the industry have endorsed deintermixture of one sort or another, including the American Broadcasting Co., National Broadcasting Co., Radio Corporation of America, Columbia Broadcasting System, General Electric Co., Storer Broadcasting Co., Westinghouse, and General Teleradio.

The problems confronting UHF broadcasters are so well known to this committee that discussion would serve no useful purpose. In short, intermixture has not worked. It has not resulted in the development of a fully competitive nationwide television service. By way of example, WICS refers you to the Springfield, Ill., and St. Louis, Mo., areas with which it is very familiar.

At the present time, Springfield is allocated channels 2 and 20 for commercial use and channel 66 for noncommercial use. Channel 20 has been assigned to WICS. Channel 2 is presently the subject of a comparative hearing in which an initial decision was released December 3, 1954. Channel 66 has not been assigned and no applications for it are pending.

St. Louis is allocated channels 4, 5, 11, 30, 36, and 42 for commercial use and channel 9 for noncommercial educational use. Channel 5 has been assigned to KSD-TV, a prefreeze station which commenced operation February 8, 1947. Channel 4 is assigned to KWK-TV which went on the air July 7, 1954. Channel 9, the educational channel, has been assigned to KECT which commenced operation September 13, 1954. Construction permits are now outstanding for two of the UHF channels. The Lutheran Church—Missouri Synod—holds a construction permit for a station on channel 30 at Clayton, Mo., a suburb of St. Louis. This permit was granted February 4, 1953. Construction of the station has not been commenced. Missouri Broadcasting Corp. holds a construction permit for a station on channel 42 at St. Louis. This permit was granted February 11, 1953. Again, no construction has been undertaken. Channel 36 was assigned to Broadcast House, Inc. (KSTM-TV) which commenced operation October 20, 1953, but left the air August 3, 1954, and surrendered its construction permit on August 26, 1954. WTVI, a UHF station which once operated on channel 54 at Belleville, Ill. (within the St. Louis metropolitan area) has moved to channel 36

in St. Louis. One other UHF station has been in operation in the St. Louis vicinity. This station, KACY, which operated on channel 14 at Festus, Mo. (with transmitter within a few miles of St. Louis) went on the air October 31, 1953, but ceased operation April 2, 1954. The remaining VHF channel (11) in St. Louis is now the subject of a comparative hearing among four applicants.

WICS is a rarity, a successful UHF television station. Commencing operation September 17, 1953, it has worked diligently to promote UHF. It has succeeded to the extent that now 99 percent of the television receivers in Sangamon County, where Springfield is located, are capable of receiving UHF signals. Every set now sold in Springfield is equipped for UHF reception. Its programming is designed to appeal to every segment of its diverse audience of commerce, agriculture, industry, and Government. Each day WICS features local faces on the channel 20 screen and its facilities have been made available to virtually every public service organization in the area. Its local programs include a story time for children 2 to 6, a teen-age series, a farm program, shopping and household hints, kitchen tips, record potpourri, interviews, news, sports, and weather. It also televises a forum on religion in conjunction with the Illinois Church Council, a program of job opportunities in association with the Illinois State Employment Service, a documentary series in cooperation with the mayor's commission on human relations, recreation and hobby shows, and programs produced in cooperation with local educational institutions. Special events have included a cerebral palsy telethon (18 consecutive hours), Christmas parades, 4 hours of daily remotes from the Illinois State Fair, a series for the blind, fashion premiers, and salutes to local industry. Local shows in WICS's 14-hour daily schedule are, of course, built around a nucleus of top network and film attractions. WICS is a primary interconnected affiliate of the NBC-TV network, has a secondary affiliation with ABC, and carries, in addition, occasional CBS programs. The availability to WICS of popular network programs has, of course, been of great assistance in building a listening audience. WICS has also been fortunate in that it has faced limited VHF competition. As will be seen below, the majority of the WICS service area receives no grade A VHF service.

The experience of UHF stations in other markets the approximate size of Springfield shows conclusively that WICS could not have accomplished what it has if it had been operating in an intermixed market. While WICS believes that it deserves credit for the energetic way in which it has developed local programs and identified itself with its community in the mind of its audience, it recognizes that these efforts would have had to have been on a much smaller scale if it had not had substantial revenue available. Moreover, without its network shows as a nucleus, it could not have achieved a program schedule of sufficient length and quality to build an adequate UHF audience. The advent of a VHF station in the Springfield market may radically change the picture. Experience in other areas has shown that an initial head start is not sufficient to guarantee the success of UHF operations. Springfield, Ill., is a relatively small market. The population of the city is only 81,628 and of Sangamon County, 131,484. Markets of this size can successfully support two and perhaps three television stations if all are either UHF or VHF. In intermixed markets, however, the competitive advantage of a VHF station is such that it absorbs too large a proportion of the total available advertising revenues to permit successful operation by the UHF station. It is evident, therefore, that if television is to remain healthy and competitive in Springfield, deletion of the yet to be assigned VHF channel and its replacement by a UHF channel are essential.

Deintermixture of Springfield will not only keep UHF alive in Springfield, and Sangamon County, but in more than a dozen other counties in central Illinois as well, thereby deintermixing an entire area, not merely a single city. Central Illinois is ideally suited for deintermixture. The VHF stations nearest to Springfield are WCIA, Champaign, Ill., approximately 75 miles distant; KSD-TV and KWK-TV, St. Louis, Mo., approximately 85 miles distant; KHQA, Hannibal, Mo., approximately 85 miles distant; and WGEM, Quincy, Ill., approximately 90 miles distant. In contrast, there are four close-by UHF stations, WTVP in Decatur, Ill., about 40 miles from Springfield, WBLN in Bloomington, Ill., 60 miles from Springfield, and WEEK and WTVH in Peoria, Ill., approximately 65 miles from Springfield. Further, if Peoria were also deintermixed, all of central Illinois would receive multiple service from fully competitive UHF stations. The overall result would be to make central Illinois an all-UHF area, with VHF service concentrated in the border Illinois, Indiana, Missouri, and Iowa cities; i. e., Chicago, Champaign, Terre Haute, Cape Girardeau, Hannibal, Quincy, Davenport-Rock Island-Moline, and Rockford-Beloit.

St. Louis, in contrast to Springfield, is a predominantly VHF market. Two commercial VHF stations are already in operation there—one since before the freeze—and a third VHF will eventually take the air. The noncommercial educational station in St. Louis is also a VHF station and provides no incentive for the purchase of UHF converters or all-channel receivers. Two UHF stations serving St. Louis have already succumbed to VHF competition. A third UHF station is hanging on temporarily but its demise appears inevitable when the third VHF station is established. St. Louis will thus be condemned to have no more than three television stations. This is inadequate for a metropolitan area of that size (population 1,681,281). The deletion of channel 2 from Springfield and its assignment to St. Louis will permit that city to enjoy four commercial television services.

If channel 2 is deleted from Springfield and removed to St. Louis, it may be concurrently assigned to the Terre Haute, Ind., area, which is now served by only one station, thereby providing a second service to Terre Haute as well as a fourth service to St. Louis.

[Inserted on May 15, 1956]

STATEMENT OF TELECASTING INC., PERMITTEE OF UHF TELEVISION STATION WENS,
PITTSBURGH, PA.

Telecasting, Inc., has been operating UHF station WENS, Pittsburgh, Pa., since August 25, 1953. It welcomes the opportunity to present its views, gleaned from almost 3 years of operating experience, to this committee.

At the present time, Pittsburgh, Pa., is allocated VHF channels 2 and 11 and UHF channels 16, 47, and 53 for commercial use and VHF channel 13 for non-commercial educational use. Channel 4 is allocated to Irwin, Pa., a town of 4,200 persons on the outskirts of Pittsburgh. Thus, for all practical purposes 3 commercial VHF's, 3 commercial and 1 noncommercial educational VHF are allocated to Pittsburgh. Of the three commercial VHF channels, channel 2 has been assigned to KDKA-TV (formerly WDTV), a prefreeze station which has been in operation since January 11, 1949. WWSW, Inc., has been granted a construction permit for station WHC on channel 11, a grant on which a further hearing is being held. Channel 4, the other commercial VHF channel, is presently the subject of a comparative hearing. At one time grants were outstanding for all three commercial UHF channels. Two stations, WENS on channel 16 and WKJF-TV on channel 53, were constructed and went on the air in July and August of 1953. WKJF-TV ceased operations on July 2, 1954, and has not returned to the air. WENS understands that construction on the remaining UHF channel is unlikely, the permit having been outstanding for almost 3 years. Noncommercial educational station WQED, operating on channel 13, has been on the air since March 19, 1954. Thus, at the present time there are two operating commercial television stations in Pittsburgh, KDKA-TV which has pioneered VHF on channel 2 and WENS which has pioneered UHF on channel 16.

The initial application of WENS for a construction permit was filed September 29, 1952, when only 2 VHF and 3 UHF channels were allocated to Pittsburgh, and before an additional VHF channel was assigned to the nearby suburb of Irwin. The application was granted on December 23, 1952, and the station went on the air August 29, 1953. Its construction costs were in excess of \$700,000. Its operating losses, as of the end of last year, were in excess of \$400,000.

The programming of WENS has been attuned to meet the needs, desires, aims, and aspirations of the persons within its service area. It has established a reputation for television firsts in the area, marshalling an aggressive force for education, information, and entertainment programming. In 6 months time WENS completed more hours of remote telecasting—major sports and special events—than had been accomplished in the metropolitan area during the previous 5 years. WENS has telecast special sporting events from New York City and on occasion has provided originating service to a regional network consisting of both VHF and UHF stations. This was done at considerable cost in equipment expenditures and rights charges. It gave complete on-the-spot coverage of Pittsburgh's municipal elections in 1953, utilizing several remote crews. In May 1954, WENS remote crews climbed the city's rugged Mount Washington to carry a special program emphasizing the value of municipal smoke control. WENS inaugurated a full schedule of University of Pittsburgh and Duquesne University sporting events. It has also carried educational remotes featuring faculty

members from these universities. One season its cameramen followed the Pittsburgh Pirates during their out-of-town games and sent back closeups of the hometown team. It has presented on a regular basis from its studios, news, sports, variety, panel, and religious programs designed to appeal to every taste. It has produced the Band Wagon in cooperation with the Allegheny County Board of Education, a program which has brought together in the WENS studios hundreds of teenagers. It conducted Way of the Cross, a half-hour special Lenten season series produced in cooperation with the Knights of Columbus. WENS has received letters of commendation in recognition of its service to the community from a vast number of religious, social service, and civic agencies. In short, WENS sincerely believes that it has worked diligently to become a vital instrument of local self-expression.

When the WENS principals applied for a UHF television station, they had confidence in the ultimate success of their operations. Since then, however, the basic VHF-UHF balance was changed. After making its original allocation for 2 VHF's and 3 UHF's for Pittsburgh, the Commission allocated another VHF channel to the town of Irwin, Pa., on the outskirts of Pittsburgh.

Competition which WENS faces from station KDKA-TV is a formidable obstacle to its success. During the years when KDKA-TV (then WDTV) was Pittsburgh's only station, the area became heavily saturated with VHF-only receiving sets. During the past year and a half it has become apparent that WENS is faced not only with this local competition but has been forced to compete with other VHF stations located outside of Pittsburgh. The substantial coverage advantages which VHF stations have by reason of their lower frequencies and more powerful equipment coupled with power increases permitted by the Commission's Rules have made it possible for VHF stations in Steubenville, Ohio, and Johnstown, Pa., to claim a saleable signal in the city of Pittsburgh. Their coverage claims have been sufficiently convincing to cause WENS to lose a number of valuable network programs to these out-of-town stations. These stations have carried advertisements in national trade publications devoted primarily to an exploitation of their coverage claims for Pittsburgh. Yet none of these out-of-town stations has contributed anything in the way of public service to the city of Pittsburgh and to its immediate environs. Their contribution is rather to extract advertising dollars from Pittsburgh to the detriment of a Pittsburgh UHF station.

Although WENS has done everything feasible to make its station a popular medium of public expression in its community, it has not been financially successful. UHF set circulation has been the chief difficulty in obtaining sufficient advertising revenue for the station. Diligent efforts to promote all-channel set circulation have met with very little success. The market is already near set saturation (now about 90 percent) with VHF-only sets, many of which were purchased during the 5 years before WENS went on the air. Further, during the last 2 years, instead of significantly increasing the number of all-channel sets, receiver manufacturers have been making fewer and fewer. The majority of converters have been found to be faulty and expensive. Finally, WENS, through no fault of its own, has time after time lost valuable network shows to out-of-town VHF stations viewed in Pittsburgh.

An interesting revelation of how much better VHF fares than UHF in the Pittsburgh market is shown by the financial improvement which WENS enjoyed during the period from March 13, 1955, to May 1, 1955. The WENS tower was completely destroyed by a windstorm on March 11, 1955. During the next 6 weeks WENS used on a temporary basis the facilities of the VHF (channel 13) educational station in Pittsburgh, WQED. Even though this station operates on very low power, spot surveys taken before and after the temporary switch to channel 13 revealed that ratings tripled on the surveyed shows. Further, national spot advertisers not heard from during the almost 2 years that WENS had been on the air began making inquiries. New orders were received, but only for the duration of the time that WENS was on channel 13. Other advertisers informed the station that they would be happy to enter into long-term contracts if WENS could stay on a VHF channel.

Pittsburgh is one of the largest markets in the Nation. Under the principles enunciated in the Commission's sixth report, the Pittsburgh metropolitan area, with a population of 2,213,236, should have at least 4 commercial television stations, each of which will be able to compete with the others without facing unnatural handicaps. As things stand, when stations get on the air on channels 4 and 11, there will be three operating VHF stations in the Pittsburgh area. Faced with this competition, WENS could not hope to survive as a UHF station.

If it should cease to operate, the Nation's eighth market would be limited to three television stations, each carrying principally network programs. If, however, WENS were permitted to operate on a VHF channel, it is prepared, if necessary, to operate as an independent. While a network affiliation is preferable, WENS does not believe that a network affiliation will be an indispensable requisite to successful operation on VHF.

WENS believes that the principal corrective measure which must be taken is the deintermixture of UHF and VHF channels throughout the country to the greatest extent possible without disrupting existing television operations. This view has been urged in many of the comments and reply comments which have been filed in the Commission's general rulemaking proceeding. Most of the major organizations in the industry have endorsed deintermixture of one sort or another, including the American Broadcasting Co., National Broadcasting Co., Radio Corporation of America, Columbia Broadcasting System, General Electric Co., Storer Broadcasting Co., Westinghouse, and General Teleradio.

The problems confronting UHF broadcasters are so well known that discussion would serve no useful purpose. In short, intermixture has not worked. It has not, as predicted in the sixth report, resulted in the development of a fully competitive nationwide television service. For example, there are no UHF stations on the air in the top five markets. Only 4 UHF's operate in the first 13 markets, and each of these has disclosed to the Commission or to the Potter committee that it is in financial distress.

Since all the very large markets have VHF stations in operation and relatively low UHF receiver circulation, or none at all, the only way to accomplish deintermixture in these markets without imposing substantial hardships on existing stations and the public is to allocate additional VHF channels where four or more VHF's are not already assigned for commercial use.

On December 5, 1955, WENS filed comments in an FCC rulemaking proceeding (docket No. 11514) showing how Pittsburgh could receive an additional VHF channel allocation without deleting a VHF allocation for another locality. This could be accomplished by placing height and power limitations on the use of certain channels in Pittsburgh and in Weston, W. Va., and by the installation of directional antennas to protect existing cochannel stations. WENS appended to its comments an engineering affidavit showing that its proposals are feasible from a technical standpoint. WENS believes that by similar techniques additional VHF channels can also be allocated to other principal markets which do not now have four or more commercial VHF assignments. In this way all major markets can have sufficient competitive television channels—all VHF or all UHF—to meet at least their minimum requirements.

[Inserted on May 15, 1956]

STATEMENT OF CHARLES W. LAMAR, JR., PERMITTEE OF UHF TELEVISION STATION WPFA-TV, PENSACOLA, FLA., AND OF KTAG ASSOCIATES, PERMITTEE OF UHF TELEVISION STATION KTAG-TV, LAKE CHARLES, LA.

WPFA-TV, a UHF television station in Pensacola, Fla., went on the air on October 16, 1953, and signed off the air because of continuing financial losses on December 19, 1955. KTAG-TV, a UHF station in Lake Charles, La., has been on the air continuously since November 2, 1953.

On October 18, 1955, WPFA-TV and KTAG-TV filed with the Federal Communications Commission a petition for rulemaking to accomplish deintermixture in several markets along the gulf coast by (1) deleting from Beaumont-Port Arthur, Tex., and New Orleans, La., VHF channels which are in hearing status; (2) adding second commercial VHF channels to Pensacola, Fla., and Lake Charles, La.; and (3) substituting one VHF channel for another VHF channel which is in hearing status for Biloxi, Miss.

On November 10, 1955, the Commission dismissed some 35 deintermixture petitions without prejudice to their subsequent reconsideration on the merits in a general rulemaking proceeding ordered that same day. The WPFA-TV and KTAG-TV petition was not considered on its overall merits. The Commission, as Chairman McConaughy told you on February 20, 1956, has not yet rejected deintermixture. WPFA-TV and KTAG-TV filed comments in the Commission's general rulemaking proceeding on December 15, 1955, and reply comments on February 8, 1956.

Deintermixture of VHF and UHF channels to the greatest extent possible without disrupting existing television operations has been urged in very many

of the comments and reply comments which have been filed in the Commission's general rulemaking proceeding. Most of the major organizations in the industry have endorsed deintermixture of one sort or another, including the American Broadcasting Co., National Broadcasting Co., Radio Corporation of America, Columbia Broadcasting System, General Electric Co., Stoner Broadcasting Co., Westinghouse, and General Teleradio.

The problems confronting UHF broadcasters are so well known to this committee that discussion would serve no useful purpose. In short, intermixture has not worked. It has not resulted in the development of a fully competitive nationwide television service. By way of example, WPFA-TV and KTAG-TV refer you to the gulf coast area with which they are familiar.

At the present time, the Beaumont-Port Arthur, Tex., area is allocated channels 4, 6, and 31 for commercial use and channel 34 for noncommercial educational use. Channel 6 is assigned for use by KFDM-TV, which began operation on April 24, 1955. Channel 31 is assigned for use by KBMT-TV which began operation on May 9, 1954, approximately 1 year before KFDM-TV. The remaining commercial assignment, channel 4, is the subject of a comparative proceeding. The hearing on the merits in this case was delayed pending the outcome of preliminary Commission proceedings to determine whether a third application should be dismissed. The educational reservation has never been applied for.

New Orleans, La., is allocated channels 4, 6, 20, 26, 32, and 61 for commercial use and channel 8 for noncommercial educational use. Channel 6 is assigned to WDSU-TV which began operating on December 18, 1948. The other VHF channel is the subject of a comparative hearing. The initial decision of July 7, 1955, granted the application of Times-Picayune Publishing Co. and denied the competing applications of Loyola University and James A. Noe & Co.; exceptions have been filed with the Commission. At one time grants were outstanding for all four commercial UHF channels. Subsequently, construction permits for channels 20 and 32 were surrendered. The permit for channel 26 has been outstanding for approximately 2½ years. The only UHF station in New Orleans which has been built and which now is in operation is WJMR-TV. This station commenced operations on October 15, 1953, on channel 61, but following the surrender of the permit for channel 20, it applied for that channel and is presently operating on it. No application has been filed for channel 8, the educational reservation. Thus, New Orleans television service at the present time consists only of WDSU-TV on channel 6 and WJMR-TV on channel 20. The nearest outside service is from Baton Rouge, La., approximately 75 miles away.

Lake Charles, La., is assigned channels 7, 25, and 60 for commercial use and channel 19 for noncommercial educational use. The only channels presently in use are 7 and 25. KPLC-TV has been operating on channel 7 since September 29, 1954. KTAG-TV, Inc., is assigned channel 25 and has been operating station KTAG-TV on that channel since November 15, 1953. No applications have been filed for the remaining commercial assignment, channel 60, or for the educational reservation, channel 19.

Pensacola, Fla., is allocated channels 3, 15, and 46 for commercial use and channel 21 for noncommercial educational use. Channel 3 is assigned for use by WEAR-TV which began operating on January 13, 1954. Channel 15 was used by station WPFA-TV from October 16, 1953, to December 19, 1955. No applications have been filed for either channel 46, the other commercial assignment, or channel 21, the educational reservation.

Lake Charles, La., and Pensacola, Fla., are independent markets approximately 285 miles apart. However, to a large extent the same considerations apply to both. Each is well below the top 100 markets in the Nation—Pensacola being ranked as 183 and Lake Charles as 206 (J. Walter Thompson Co.). In Pensacola UHF station WPFA-TV has been required to compete with VHF station WEAR-TV, while in Lake Charles UHF station KTAG-TV has had to compete with VHF station KPLC-TV. Experience has demonstrated that in these 2 markets UHF cannot compete successfully with VHF, even though only 1 VHF station provides competition to the UHF operation. As smaller markets, Pensacola and Lake Charles have not been in great demand by national advertisers (either on a network or spot basis) and when coverage has been sought the VHF channel has been preferred. WPFA-TV has already had to suspend operations. If the present television assignments in these two cities are continued, KTAG-TV will also inevitably be forced to abandon its UHF operation, resulting in television service to this community from only the remaining VHF station. The public interest could not be served by such a result, and, unfortunately, if existing allocations are continued, VHF monopolies in

each of these cities are virtually certain. For protection of the public interest a way must be found to permit the operation of more than one station in both Pensacola and Lake Charles. This would be possible if stations could compete on an equal basis—all UHF or all VHF. Making the markets all UHF would entail lengthy and time-consuming proceedings involving the modification of the permits of WEAR-TV, Pensacola, and KPLC-TV, Lake Charles, and expense to these stations if they were ultimately required to move to UHF frequencies. The practical and realistic solution is the addition of a second VHF channel to Pensacola and Lake Charles.

WPFA-TV (channel 15) was the first station on the air in Pensacola, Fla., starting operations on October 16, 1953. WEAR-TV (channel 3) began operations approximately 3 months later. WEAR-TV has been affiliated with ABC, Du Mont, and CBS. WPFA-TV has been unable to secure a network affiliation. Notwithstanding WPFA-TV's diligent advertising campaign to promote UHF, UHF receiver conversion in Pensacola fell far short of expectations. Indicative of the inferior competitive position which WPFA-TV occupied was its top hourly rate of \$120 as compared with \$225 for WEAR-TV. The Pensacola market, ranked 183 in the Nation, has a population of 112,706 persons and 1948 retail sales totaled \$75,872,000 (J. Walter Thompson). This area can support more than one television station, provided each starts from an equal competitive position. The nearest community in which other television stations are operating is Mobile, Ala., ranked as the 83d market in the Nation, approximately 55 miles away. There, WALA-TV, affiliated with ABC, CBS, and NBC, has been operating on channel 10 since January 14, 1953. WKRG-TV, a CBS affiliate, began operations on channel 5 on September 4, 1955.

KTAG-TV (channel 25) went on the air in Lake Charles on November 15, 1953, and was followed by KPLC-TV (channel 7) approximately 1 year later. KTAG-TV has made assiduous efforts to obtain a high degree of UHF conversion, but there too the results have been disappointing. KTAG-TV has had the benefit of affiliation with CBS, but its location in the 206th market in the Nation has meant a reluctance on the part of network advertisers to buy it. Because of the minor standing of the market and because of the mere fact that KTAG-TV is a UHF station, there also has been little incentive on the part of national advertisers to place spot business on it. The VHF station in Lake Charles, KPLC-TV, is affiliated with NBC and ABC. Indicative of the competitive inequality between KTAG-TV and KPLC-TV is the top hourly rate of \$180 for the former and \$262.50 for the latter. The population of the Lake Charles market is 89,635 and 1948 retail sales totaled \$71,104,000. While experience has demonstrated that a UHF station in this market cannot compete successfully against the existing VHF station, the market is capable of supporting two VHF's. The nearest community in which television stations are operating is Beaumont-Port Arthur, Tex., ranked as the 94th market in the Nation, approximately 55 miles away. As noted above, one VHF station and one UHF station are operating in that market, with a second VHF channel the subject of a comparative proceeding.

KTAG-TV's and WPFA-TV's experience in Lake Charles and Pensacola is similar to that of other UHF stations in medium and small markets faced with the competition of a single VHF station. For example, WKAB-TV, in Mobile, Ala. (population 129,009), commenced operation December 29, 1952, but was forced to quit the air August 1, 1954, although its only competitor was VHF station WALA-TV. Similarly, KFAZ, Monroe, La. (city population 38,572; county population 74,713), commenced operation August 11, 1953. A VHF competitor, KNOE-TV, took the air September 26, 1953, and KFAZ was forced to cease operation May 1, 1954. (The Commission has since deintermixed Monroe by assigning an additional VHF channel there.) Other two-station, intermixed markets in which UHF stations have been unsuccessful are: Flint, Mich. (population 41,893); Tyler, Tex. (population 38,968); and Roanoke, Va. (population 91,921).

New Orleans, La., is ranked as the 22d market. Its population is 685,405 and its 1948 retail sales totaled \$553,211,000. WDSU-TV, the VHF pioneer in that market, is affiliated with NBC; its top hourly rate is \$800. WJMR-TV, the only UHF station which has been built in New Orleans, is affiliated with ABC and CBS; its top hourly rate is \$330. Experience throughout the Nation has demonstrated that, once a second VHF channel enters this market (through a grant of channel 4), UHF will be doomed. However, limiting the number of VHF channels in New Orleans to one will enable the existing UHF stations to survive and in time achieve competition equality with the VHF, and will allow

an increase in the number of television services in this community. As the 22d market in this country, New Orleans is a place where UHF can prosper and grow. Survival of UHF in this market will be a boon to the UHF television service as a whole and will aid it in eventually gaining acceptance and equal status with VHF. New Orleans contrasts sharply with Pensacola and Lake Charles, both of which are well below the first 100 markets. In neither of these two latter communities is there any reasonable chance of UHF survival or growth.

Beaumont-Port Arthur, Tex., presents similar considerations to New Orleans. It too is within the first 100 markets in the Nation, being ranked 94. It too can be used as a vehicle for preservation of UHF. The population of this market is 195,083 persons and its 1948 retail sales totaled \$193,671,000. The UHF station presently operating in this market, KBMT (TV) (channel 31) could survive and prosper if it were not forced into competition with two VHF stations. It is affiliated with ABC and NBC, while KFDM-TV (channel 6) has ABC and CBS affiliations. KBMT presently occupies an inferior competitive position—a top hourly rate of \$220 as compared with \$360 for KFDM-TV. It seems certain of extinction if channel 4 is granted, but removal of that channel should keep KBMT alive and thus aid in the general preservation of UHF as a going television service.

Accordingly, the recommended solution for the cities discussed above is the removal of the ungranted VHF channels from New Orleans and Beaumont-Port Arthur (channel 4 in each instance), the substitution of channel 4 for ungranted channel 13 at Biloxi, Miss., and the addition of channel 13 to Pensacola and channel 4 to Lake Charles. These changes would comply with existing separations. An alternative solution would be the addition of VHF channels on a reduced mileage basis at Pensacola and Lake Charles.

[Inserted on May 15, 1956]

STATEMENT OF CARMEN MACRI, PERMITTEE OF UHF TELEVISION STATION WQIK-TV,
JACKSONVILLE, FLA.

On July 29, 1955, WQIK-TV (then WOBS-TV) filed with the Federal Communications Commission a petition for rulemaking to partially deintermix Jacksonville, Fla., to UHF predominant and to increase the number of commercial VHF channels allocated to Savannah, Ga., from 2 to 3. On August 30, 1955, WQIK-TV filed a supplement to its rulemaking petition, pointing out that, as a result of its deintermixture proposal, a VHF channel also be allocated to Brunswick, Ga., WQIK-TV's proposal dovetailed in with the deintermixture petition, filed April 14, 1955, of Storer Broadcasting Co. and Gerico Investment Co. for Miami-Fort Lauderdale, Orlando, and Tampa-St. Petersburg, Fla.

On November 10, 1955, the Commission dismissed some 35 deintermixture petitions without prejudice to their subsequent reconsideration on the merits in a general rulemaking proceeding ordered that same day. WQIK-TV's petition was not considered on its overall merits. The Commission, as Chairman McConaughey told you on February 20, 1956, has not yet rejected deintermixture. WQIK-TV filed comments in the Commission's general rulemaking proceeding on December 15, 1955, and reply comments on February 8, 1956.

Deintermixture of VHF and UHF channels to the greatest extent possible without disrupting existing television operations has been urged in very many of the comments and reply comments which have been filed in the Commission's general rulemaking proceeding. Most of the major organizations in the industry have endorsed deintermixture of one sort or another, including the American Broadcasting Co., National Broadcasting Co., Radio Corporation of America, Columbia Broadcasting System, General Electric Co., Storer Broadcasting Co., Westinghouse, and RKO Telradio.

The problems confronting UHF broadcasters are so well known to this committee that discussion would serve no useful purpose. In short, intermixture has not worked. It has not resulted in the development of a fully competitive nationwide television service. By way of example, WQIK-TV calls attention to the Jacksonville, Fla., and Savannah, Ga., areas with which it is very familiar.

At the present time, Jacksonville is allocated channels 4, 12, 30, and 36 for commercial use and channel 7 for noncommercial educational use. Channel 4 is assigned for use by station WMBR-TV, which began operation on October 16, 1949. Station WJIP-TV has operated on channel 36 since December 13, 1953. WQIK-TV holds a construction permit for channel 30. An application for a non-commercial educational television station on channel 7 was filed on November 18,

1953, but no final action has been taken on that application. Channel 12 is presently the subject of a comparative hearing in which an initial decision was released April 4, 1955.

Savannah, Ga., is allocated channels 3 and 11 for commercial use and channel 9 for noncommercial educational use. Channel 11 is assigned to station WTOC-TV, which began operation on February 2, 1954. On January 26, 1955, the Commission made a final grant after hearing to WSAV, Inc., for operation on channel 3, and operation thereon should commence in the near future. On May 25, 1953, the board of public education for the city of Savannah and the county of Chatham filed an application for a noncommercial educational station on channel 9, which application is still pending.

The city of Brunswick, Ga., has a population of 17,954 (1950 U. S. census). It is presently allocated UHF channels 28 and 34, but no applications have been filed for either of these channels. Brunswick and its environs is a VHF-only area. It receives VHF fringe service from stations WMBR-TV, Jacksonville, Fla. (channel 4), 57 miles away and from WTOC-TV, Savannah, Ga. (channel 11), 68 miles away. If the city of Brunswick is to have its own local television station at any time in the immediately foreseeable future, such station must be on a VHF channel.

During the past 2 years WQIK-TV has surveyed the Jacksonville market and studied the progress of UHF stations in other areas to determine whether it would be economically feasible to construct and operate its proposed UHF station in Jacksonville. It has reluctantly concluded that probably no UHF station and certainly no two UHF stations can hope to survive in a market which already has a prefreeze VHF station on the air, and which, after the conclusion of the channel 12 hearing, will have a second local VHF station. At the present state of television development, an affiliation with one or more strong national networks is of great importance to the economic survival of any television station and an absolute necessity to a UHF station in an intermixed market which must provide popular programs to develop and maintain UHF receiver circulation. In Jacksonville the prefreeze VHF station now carries the network programs of CBS and ABC. The existing UHF station carries NBC and occasional ABC programs. Judging from experience in other markets, the second VHF station will probably obtain a basic NBC affiliation shortly after it goes on the air. ABC, in order to remain competitive with the 2 dominant networks, will seek to place at least its better programs on 1 of the 2 VHF stations. The VHF stations will thus absorb the bulk of the better network programs, leaving only secondary affiliations and the less desirable programs for their UHF competitors, if in fact they still have any UHF competitors. The pattern already established over the country whereby CBS and NBC enjoy the lion's share of far-reaching VHF facilities will thus be extended to the very serious detriment of the third network and the general public.

In view of the overwhelming evidence that the advent of a second VHF station in a market, no matter how large (Jacksonville is the 60th in the Nation), is inevitably followed by the demise of the UHF stations in that area, WQIK-TV has been forced to the conclusion that construction and operation of a UHF station in Jacksonville, under the present television allocations for that city, would be most foolhardy. The station would be foredoomed to failure.

Jacksonville could be partially deintermixed by changing the educational reservation from channel 7 to channel 12 and the removal of channel 7. This would not produce complete deintermixture. There would still be the one prefreeze VHF station. Deintermixture, however, is not a goal in and of itself. The desired aim is to reduce VHF competition to a level which will permit the survival of UHF stations. It is believed that, in a market as large as Jacksonville, the removal of one commercial VHF channel from the market is adequate to insure the success of UHF service.

WQIK-TV fully appreciates the fact that the removal of a VHF channel from Jacksonville would not guarantee the financial success of UHF stations in that market. Nevertheless, WQIK-TV is confident that, through efficient operating procedures, including the joint use of AM-TV facilities and personnel, and without sacrificing program quality, multiple UHF stations in the Jacksonville market can achieve modest financial success. If Jacksonville is partially deintermixed, WQIK-TV will proceed expeditiously with the construction of its station, and will begin the operation of that station at the earliest practicable date.

Partial deintermixture of Jacksonville can be achieved quite simply and in full compliance with all the mileage separation and other requirements of the Commission's rules. The public would not be injured by such deintermixture.

The owner of each television receiver in the Jacksonville area would continue to receive as many signals as he now receives. The number of receivers in the Jacksonville metropolitan area (Duval County) capable of receiving UHF as well as VHF stations is now more than 60 percent of the total number of television homes in the area. Thus, as a result of the proposed change, a large majority of the set owners in the market would receive service from more stations than they can now hope to receive.

The removal of channel 7 from Jacksonville would permit its assignment to Savannah (which has no UHF channel and in any case could not support a UHF station), and would also permit the assignment of channel 8 to Brunswick. As shown above, Brunswick cannot have a local television station unless it gets a VHF channel.

The Jacksonville and Savannah markets are the 60th and 115th in the Nation, respectively. Each of these markets needs at least three fully competitive television stations so that residents of the respective service areas can have a choice of the national network offerings of all the networks. Similarly, Brunswick needs at least one local television outlet.

In addition to the above, partial deintermixture of Jacksonville when combined with deintermixture of the Miami-Fort Lauderdale area would permit the assignment of a third VHF channel to Orlando (channel 7) and Tampa-St. Petersburg (channel 10), both of which cities will otherwise be limited to 2 stations. Thus, deintermixture in Florida will substantially improve television allocations in six separate markets without dislocation of existing stations or hardship on the public. Clearly deintermixture is the recommended solution in this area.

[Inserted on May 15, 1956 (with its enclosures)]

UNITED STATES SENATE,
Washington, D. C., April 26, 1956.

HON. WARREN G. MAGNUSON,
Chairman, Senate Interstate and Foreign Commerce Committee,
United States Senate, Washington, D. C.

DEAR SENATOR: I am enclosing copies of letters and telegrams I have received in regard to the television broadcasting study you are presently conducting. I would appreciate very much your committee incorporating these letters into your study since they represent the thinking of constituents of my State.

Regards.
Sincerely,

HOMER E. CAPEHART.

HOOSIER STATE BANK OF HAMMOND,
Hammond, Ind., April 24, 1956.

Senator HOMER CAPEHART,
Washington, D. C.

DEAR MR. CAPEHART: I would like to express my support toward the bill now in Congress, which will permit the great expansion in the future of television and all-channel system comprising 12 VHF channels and 70 UHF channels.

Please register my support in favor of this bill.
Very truly yours,

JOHN F. WILHELM, President.

WAGNER & MALO,
Hammond, Ind., April 23, 1956.

HON. HOMER CAPEHART,
United States Senate, Washington, D. C.

DEAR SENATOR CAPEHART: As a private citizen interested in the complete and democratic progress of the television industry, will you please use your influence with Senator Magnuson and his committee to recommend utilization of the UHF band or all channel system. I am reliably informed that if Lake County and other sections of our State are to ever have its own television system, the UHF band must be used.

Sincerely,

HAROLD C. WAGNER.

DELPHI HIGH SCHOOL,
Delphi, Ind., April 24, 1956.

Hon. HOMER E. CAPEHART,
The United States Senate, Washington, D. C.

DEAR SIR: I have recently read where the Federal Communications Commission has been refused additional high frequency channels now reserved for governmental use. Also that the Magnuson committee has had hearings on the UHF-VHF situation.

Due to the fact that the FCC is awaiting recommendations from the Magnuson committee before going ahead with a competitive television system for the United States, I strongly recommend that you use your powers to get the Magnuson committee to act on this all-important matter.

We need a competitive all-channel television system so that small towns such as ours will continue to operate a television station for their home audience.

Sincerely yours,

EDWARD J. CASASSA.

HOUSE OF REPRESENTATIVES,
STATE OF INDIANA,
Indianapolis, April 24, 1956.

Hon. HOMER E. CAPEHART,
*Senate Office Building,
Washington, D. C.*

DEAR HOMER: It appears that there is a matter before the Magnuson committee in which WFAM-TV is very much interested and I am told by them that a little insistence from the House and Senate to the Magnuson committee will bring about recommendations to the FCC for an all-channel competitive television system in America. Such action would, as I understand it, provide a fair and equitable climate for all operators including WFAM-TV. I know anything you can do to bring about such a recommendation would be very much appreciated by our local station.

Very sincerely yours,

C. G. BALL,
Joint Representative, Tippecanoe and Warren Counties.

COLUMBIAN PARK,
Lafayette, Ind., April 24, 1956.

Hon. HOMER E. CAPEHART,
*United States Senate Building,
Washington, D. C.*

DEAR MR. CAPEHART: From recent publicity we have noted that the Federal Communications Commission have been refused additional very high frequency channels now reserved for governmental use. We have also noted that the Magnuson committee have had extensive hearings on the UHF-VHF situation.

We also understand that the FCC is awaiting recommendations from the Magnuson committee before establishing a competitive television system for the United States.

We, therefore, strongly recommend that you use your influence to get the Magnuson committee to act rapidly on this all-important matter so that we will have in the very near future a competitive all-channel television system so that small towns such as ours will continue to operate a television station for their home audience.

Mrs. ELIZABETH SHARPLESS.

JEFFERSON HIGH SCHOOL ATHLETIC DEPARTMENT,
Lafayette, Ind., April 24, 1956.

Senator HOMER CAPEHART,
*Senate Office Building,
Washington, D. C.*

DEAR MR. CAPEHART: I am of the understanding that the FCC is awaiting recommendations from the Magnuson committee before establishing a competitive television system for the United States.

Since I am a member of the athletic department of the local high school, I strongly recommend that you use your influence to get the Magnuson committee

to act rapidly on this all-important matter so that we will have in the very near future a competitive all-channel television system so that small towns such as ours will continue to operate a television station for their home audience. I feel that the use of television for school sports activities is very important.

Sincerely,

J. C. LYBOULT, *Ticket Manager.*

LAFAYETTE NATIONAL BANK,
Lafayette, Ind., April 23, 1956.

HON. HOMER E. CAPEHART,
Senate Office Building, Washington, D. C.

DEAR SENATOR CAPEHART: According to recent publicity I have noticed that the Federal Communications Commission have been denied additional very high frequency channels now reserved for governmental use. I have noted also that the Magnuson committee have had extensive hearings on the UHF-VHF situation. It is my understanding that the FCC will have to wait recommendations from the Magnuson committee before establishing a competitive television system for the United States.

I would appreciate it very much if you would use your influence to urge the Magnuson committee to act rapidly on the all-important matter so that we will be able to have a competitive all-channel television system in the very near future so that small towns, such as ours, will continue to operate a television station for their home audience.

With kindest regards.

Sincerely yours,

BURR S. SWEZEY, Jr., *Vice President.*

[Telegram]

Senator CAPEHART,
Senate Building, Washington, D. C.:

BLOOMINGTON, ILL.

Will greatly appreciate any help you can give in getting the FCC to take some sort of action on the UHF situation by June 1.

Best regards.

WORTH S. ROUGH, *Manager, WBLN-TV.*

[Telegram]

Senator HOMER CAPEHART,
United States Senate, Washington, D. C.:

MUNCIE, IND.

Retel concerning our request that you contact members of FCC concerning action on allocations problem, we now also urgently request that you contact all members of Senate Interstate and Foreign Commerce Committee asking them also to write to the FCC Commissioners urging them to take some action on allocations problem.

DON BURTON,
BILL CRAIG,
Station WLBC-TV, Muncie, Ind.

TRI-CITY RADIO CORP.,
Muncie, Ind., April 13, 1956.

Senator HOMER E. CAPEHART,
Senate Office Building, Washington, D. C.

DEAR SENATOR CAPEHART: We are writing to you with respect to the hearings now being held before the Senate Committee on Interstate and Foreign Commerce in Washington, D. C., to determine the remedial action to be taken to provide a nationwide competitive television system.

At the present time there are now in operation 464 television stations in the United States. Of these 464 television stations, 365 are very high frequency (VHF) stations operating on channels 2 to 13 inclusive, and the remainder are ultrahigh frequency (UHF) stations operating on channels 14 to 82, inclusive.

All television stations which commenced operation prior to April 1952 are VHF stations (channels 2 to 13), and UHF television stations (channels 14 to 82) were authorized by the Federal Communications Commission's sixth report and order of April 11, 1952.

For a nationwide competitive television system UHF stations are necessary because there are 70 UHF channels and only 12 VHF channels. There are certain technical problems, however, facing UHF stations. In the first place, the great majority of receiving sets being built in the United States today are equipped to receive VHF stations only, and a relatively small percentage are equipped at the factory to receive UHF television stations. This is due in major part because of the fiercely competitive situation in the receiving set business, and the fact that it costs \$15 to \$35 more to construct a television set which will receive both the VHF and UHF stations. Also, in order to receive UHF stations, it is necessary for the receiving set owner to install a special UHF television receiving antenna which costs from \$25 to \$50, depending upon the distance from the operating UHF stations. For those television sets not constructed at the factory to receive UHF television stations there must be a set conversion in the field when desired by the set owner at a cost of from \$20 to \$50 in addition to the UHF antenna installation previously mentioned.

Furthermore, VHF stations are able to transmit the signals for a longer distance than UHF stations with a similar amount of power because of the fact that the higher frequencies for UHF television stations do not follow the curvature of the earth to the same extent as the VHF frequencies, but travel on a nearly straight line from the transmitting antenna. This means that a UHF station in order to have comparable coverage with a VHF station, if possible at all, must have a great deal more power which, of course, means a considerably more expensive installation. The situation is somewhat tantamount to two automobiles—one of which requires more gasoline (UHF) than the other (VHF) to travel the same distance.

UHF television stations were provided for in the Federal Communications Commission's sixth report and order in April 1952 because it was recognized that only 12 VHF channels with required minimum spacing of 170 miles utilizing the antenna heights and powers then contemplated could not possibly provide for enough television stations to have a truly nationwide competitive television system. This means that only 12 VHF channels do not permit many of the sizable communities of the United States to have their own television station for the presentation of entertainment, news, and local public expression, including a platform for the presentation of viewpoints of the legal representatives of our Nation to their constituents.

The plight of the UHF television stations has become increasingly more serious with the increase of power and antenna heights by VHF stations with the result that these VHF stations extend their signals more deeply into the towns and communities previously served by UHF-only stations. Moreover, as the FCC has authorized VHF stations to move their antenna sites away from the communities originally assigned so as to cover a variety of markets it has encroached upon the UHF television stations' service areas and ability to survive. This is known as market straddling and we can list two specific examples. UHF station KCEB in Tulsa, Okla., was forced off the air, and another UHF permittee never constructed the station as a result of VHF station KTVX, which was allocated to Muskogee rather than Tulsa, Okla., locating its antenna site 23 miles from Muskogee and actually closer to Tulsa than to Muskogee. UHF station KNUZ-TV, Houston, Tex., also was required to terminate operations chiefly because VHF station KGUL-TV (which had been assigned to Galveston) was permitted to locate its transmitter close enough to Houston to make it a Houston station for all practical purposes. This was further aggravated recently by the FCC authorizing a further transmitter move by this same Galveston station to a location even closer to Houston.

In all, the present problems for UHF stations arise from the following aspects:

(1) *The FCC's sixth report provided for both UHF and VHF stations in the same city and in areas within 60 miles from VHF stations.*—VHF stations with maximum power and antenna height put viewable signals in areas as far distant as 60 miles so that a viewer in many instances is content to limit himself to that signal rather than to spend the additional amount of money to convert his set or erect an antenna to receive the local UHF stations.

(2) *Networks have favored VHF stations rather than UHF stations as affiliates,* and have switched from a UHF to a VHF station when the latter came on the air after the former had been in operation for some time. Contracts with

UHF stations usually have a short cancellation clause, so that the UHF television station operates with the sword of Damocles dangling over its head. Network programs are the lifeblood for the successful operation of a television station and its very existence can be eliminated with the deprivation of network programs. By reason of the encroachment of the VHF stations' signals into UHF stations' service areas, some 58 UHF stations have been compelled to leave the air, and 109 UHF permits have been returned by the permittees. This, of course, has both direct and indirect adverse effects upon the remaining UHF television stations now in operation which presently number slightly less than 100.

(3) *The FCC has not taken any positive action for VHF-UHF deintermixture.*—During the hearings before the Potter subcommittee of the Senate Committee on Interstate and Foreign Commerce, in 1954, there were encouraging statements by the then Chairman of the Federal Communications Commission with respect to selective deintermixture for VHF and UHF stations. A number of applications were filed by various stations in then exclusive UHF markets (but where VHF allocations had been made and no VHF station was on the air) by reason of such encouragement of the possibility of selective deintermixture. This deintermixture for elimination of local VHF stations from UHF communities so that the latter stations could survive, however, has not materialized. In fact, the FCC has denied all petitions for deintermixture and granted VHF applications for certain of those areas in which only UHF stations had been in operation. While allegedly these petitions were denied without prejudice to the parties renewing their requests in a general television rulemaking proceeding now pending before the Commission, it is obvious that for all practical purposes, the "denial without prejudice" is one in name only.

Station WLBC-TV is one of the so-called successful television stations in operation in the United States at the present time. We have viewed with growing concern, however, the many UHF television stations which have been forced to suspend operation, and know of a number that "are hanging on by the skin of their teeth" awaiting some remedial action by either the FCC or the Congress.

From experience in operating a UHF television station for nearly 3 years as well as our active participation in the broadcast industry for more than 30 years, we feel that the following remedial steps should be taken:

(1) *Deintermixture.*—This would provide for a reallocation of channels so that only all VHF or all UHF stations would be grouped together in the same community or the same area.

(2) *Reduction of present VHF powers.*—This would reduce the coverage of present high-powered VHF stations, and enable UHF stations to compete more successfully.

(3) *Reduction of present VHF stations' tower heights.*—In those cases where it would not be practical to reduce the tower height itself, a corresponding reduction of power could be accomplished, thus further enabling the UHF stations to compete more effectively with VHF stations.

(4) *Reduction of presently prescribed minimum VHF mileage separations.*—With the reduction of such mileage separations, additional VHF stations could be granted to increase the number of television stations in the United States.

(5) *Limitation of television coverage areas to their own communities.*—With such a limitation television stations would compete against each other in the same community and would not encroach upon the service areas of stations in far distant communities.

(6) *Use of directional antenna systems for allocation purposes.*—With the use of directional antennas for allocation purposes many more VHF stations could be allocated at closer distances than now prescribed.

(7) *Elimination of the excise tax on all-channel receivers.*—With the elimination of the excise tax on all-channel receivers, the ultimate cost to the consumer for an all-channel set would be substantially the same as for a VHF-only set with the result that the distribution of all-channel sets which could receive both UHF and VHF stations would be encouraged.

(8) *Reduction of common-carrier cable and microwave-relay costs.*—A reduction of such costs would enable extension of network service to stations which cannot now afford such network programming because the market does not warrant the cost to the network of having that station as an interconnected affiliate.

Unquestionably, unless positive and early remedial action is taken, as many as 50 more UHF television stations will soon be required to suspend operations

with the result that millions of dollars will have been wasted in television transmitting equipment and the cost to the public of converting receiving sets, thousands of persons employed by UHF stations are already and will be without jobs, and, most important of all, the communities concerned will be without those stations for local outlets over which civic and community leaders and their congressional representatives can discuss important local, national, and international subjects.

We feel that the Congress which supervises the actions of administrative agencies such as the Federal Communications Commission should take the necessary action to assure that there will be a truly nationwide competitive television system rather than a handful of powerful VHF television stations constituting a monopoly of the media of mass communication by television—unquestionably the most important communications media of our time. If we can supply any further information do not hesitate to let us know, and we will await hearing from you with respect to action taken from your end to remedy the present television situation in the interest both of your constituents and the country as a whole.

Sincerely,

DONALD A. BURTON,
President.
WILLIAM F. CRAIG,
Vice President.

CITY OF LAFAYETTE, IND.,
MAYOR'S OFFICE,
April 20, 1956.

HON. HOMER E. CAPEHART,
Senate Building, Washington, D. C.

DEAR HOMER: I have been informed that the Federal Communications Commission has turned down application of any additional very high frequency stations. It would therefore be necessary, in order to have cooperation in the United States, to utilize the ultra high frequency bands.

It seems that the Magnuson committee has voted to act favorably on an all-channel system.

I will most certainly appreciate your support in getting the Magnuson committee to act immediately.

Sincerely,

K. R. SNYDER, *Mayor.*

FIRST MERCHANTS NATIONAL BANK
& TRUST COMPANY OF LAFAYETTE, IND.,
April 20, 1956.

HON. HOMER E. CAPEHART,
United States Senate, Washington, D. C.

MY DEAR SENATOR CAPEHART: It is my understanding that the Warren G. Magnuson committee has completed the investigation of VHF and UHF television.

I request that you urge the Magnuson committee to make recommendations for an all-channel competitive television system in this country.

This will enable cities like Lafayette to have a television station of their own.

Respectfully yours,

M. J. FERRITER, *Assistant Cashier.*

CHARLES L. SNYDER, INC.,
Lafayette, Ind., April 18, 1956.

Senator HOMER E. CAPEHART,
United States Senate, Washington, D. C.

DEAR SIR: We urge you to recommend positive and immediate action on the proposals set forth by the Committee for Competitive Television.

Thank you for your attention on this matter.

Sincerely,

C. L. SNYDER, *President.*

LAFAYETTE, IND., April 20, 1956.

HON. HOMER E. CAPEHART,
Senate Office Building, Washington, D. C.

DEAR SENATOR: I understand now that the Federal Communications Commission has been refused and additional very high frequency television channels from the Government. This means that in order to have a competitive television system in America, FCC must utilize the ultra-high-frequency station band.

Therefore, we urgently request that you use your influence with the Magnuson committee for recommendation to the FCC for a competitive all-channel television system for America. This will enable many cities, such as our own, to have its own television station.

With kindest personal regards, I am,
Yours very truly,

GLENN C. NEIDIGH,
Chairman, Republican City Committee.

LAFAYETTE COOPERATIVE ELEVATOR CO.,
Lafayette, Ind., April 20, 1956.

HON. HOMER E. CAPEHART,
Washington, D. C.

DEAR SIR: From recent publicity we have noted that the Federal Communications Commission have been refused additional very high frequency channels now reserved for governmental use. We have also noted that the Magnuson committee have had extensive hearings on the UHF-VHF situation.

We also understand that the FCC is awaiting recommendations from the Magnuson committee before establishing a competitive television system for the United States.

We, therefore, strongly recommend that you use your influence to get the Magnuson committee to act rapidly on this all-important matter so that we will have in the very near future a competitive all-channel television system, so that small towns such as ours will continue to operate a television station for their home audience.

Yours truly,

W. L. WOODFIELD, Manager.

WFAM-TV,
Lafayette, Ind., April 18, 1956.

SENATOR HOMER E. CAPEHART,
United States Senate,
Washington, D. C.

DEAR HOMER: I would appreciate it very much if you would request of each member of the Magnuson committee, who are investigating the UHF-VHF situation, to offer definite recommendations to the FCC within the next 10 days. We hope the Commission will make recommendations to the trade within the next month and a half. They have sat on their hands for more than 2 years, and many of the UHF's have fallen by the wayside, but we now believe we have a fighting group and at last, according to Chairman George McConaughy's talk at the convention in Chicago, are causing the FCC to wake up and follow the line of procedure that we outlined to them.

We should also like for you to write the members of the FCC requesting that they come out with a recommendation for a competitive television system for the country now. This will save many UHF operators. It's the logical solution, and it's the FCC's duty to see that this is brought about.

Thanking you and kindest regards.

Your very truly,

O. E. RICHARDSON, President.

TEMPLE ISRAEL,
Lafayette, Ind., April 25, 1956.

HON. HOMER E. CAPEHART,
Senator from Indiana,
Washington, D. C.

DEAR SIR: From recent publicity it has been noted that the Federal Communications Commission has been refused additional very high frequency channels now reserved for governmental use. It has also been noted that the Magnuson committee has had extensive hearings on the UHF-VHF situation. We understand that the FCC is awaiting a recommendation from the Magnuson committee before establishing a competitive television system for the United States.

We, therefore, strongly recommend that you use your influence to get the Magnuson committee to act rapidly on this all-important matter so that we will have in the very near future a competitive all-channel television system so that small towns such as ours will continue to operate a television station for their hometown audience.

I have the honor to remain,

Very truly yours,

Rabbi N. WILLIAM SCHWARTZ.

[Telegram]

EVANSVILLE, IND., April 26, 1956.

HON. HOMER E. CAPEHART,
Senate Office Building,
Washington, D. C.:

Imperative that FCC be urged immediately by you and Senate Interstate Commerce Committee to take prompt action to resolve a definite policy with regard to future TV allocations system in this country. FCC has had over 2 years to study problem and has all necessary information and opinion to decide question. Nevertheless all pronouncements by FCC have indicated a policy of indecision and inaction. Failure of FCC to act endangers future development of TV in this country. Public and entire TV and electronics industry have great stake in future of TV and are entitled to know now which way we are headed in order to determine set buying and further expansion and improvement of a competitive TV system. We are not asking you to take a stand for or against us or anyone else. Only asking that you take a stand against FCC's indecision and inaction. Whole country and entire industry entitled to a verdict now before further delay causes irreparable harm. Respectfully request that you so communicate to the FCC and Senate Interstate Commerce Committee and advise us of results. Kindest regards and best wishes.

JESSE D. FINE,
President, WFIE-TV.

[This letter and the one following were inserted on June 11, 1956]

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
May 1, 1956

HON. GEORGE C. MCCONNAUGHEY,
Chairman, Federal Communications Commission,
Washington, D. C.

DEAR MR. MCCONNAUGHEY: I have read with interest a copy of the speech which you delivered to the 34th annual convention of the National Radio & Television Broadcasters in Chicago on April 17.

I was particularly interested in your suggestion of a crash research development program on UHF. If this proposal is designed to stimulate a concentrated effort on the part of the industry to develop more efficient UHF transmitters and receivers to the end that UHF be made more nearly competitive with VHF, I would think that this was very constructive.

However, my attention has been drawn to one sentence in which you say—"Once this development program has been completed, the Commission and the industry will have a sound technical basis for making a long-term decision on the merits of UHF."

To the extent that this might be construed as indicating the Commission would postpone decisions on allocation changes designed to preserve UHF until such a program is completed, I would think that this would be unsound. The Commission has long since decided that UHF must play a vital part in a nationwide, competitive television system, and this is strongly reinforced by the action of the Office of Defense Mobilization in indicating that no additional VHF channels could be made available by the military.

It would seem to me that the Commission should go ahead with its consideration of changes in the allocations plan and I should hope that some kind of initial decision on this matter, laying down policies to be followed in preserving UHF, could be arrived at within a matter of a very few weeks. All the members of the committee have been receiving a tremendous volume of correspondence from not only UHF broadcasters but influential persons in communities now served by UHF, urging the committee to instruct the Commission to take some affirmative action not later than June 1, 1956. While it is quite clear that detailed changes in allocations cannot be made by that time, it would seem to me that the Commission could announce its preliminary conclusions before that date and then institute whatever proceedings may be necessary to implement these policies.

I would very greatly appreciate your comments on the proper interpretation to be placed on your remarks at Chicago as well as your best estimate as to the time when some action by the Commission on UHF can be expected.

Sincerely yours,

WARREN G. MAGNUSON, *Chairman.*

FEDERAL COMMUNICATIONS COMMISSION,
Washington, D. C., May 14, 1956.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

DEAR SENATOR MAGNUSON: In my recent speech before the convention of the National Association of Radio & Television Broadcasters, I urged that a crash research development program on UHF be undertaken immediately. Once this development program has been completed, the Commission and the industry will have a sound technical basis for making a long-term decision on the merits of UHF.

In your letter of May 1, 1956, concerning my recent remarks, you state that if the crash research program is designed to stimulate a concentrated effort on the part of the industry to develop more efficient UHF transmitters and receivers, it is a constructive one. However, to the extent that such a program would postpone decisions on changes in TV allocations designed to preserve UHF until such a program is completed, you submit that it would be unsound. You urge that the Commission proceed with its consideration of allocation changes and that some kind of initial decision be reached in the next few weeks.

In urging a crash development program for UHF, I in no way intended that other possible actions be held in abeyance. On the contrary, I contemplated that as a necessary adjunct to the research program, the Commission would be doing everything possible to improve the immediate television situation and to assist UHF. I certainly agree with you that it would not be in the public interest to withhold action until the research program can be completed.

The Commission, as you know, is now actively considering the matter of television allocations and is devoting a great portion of its time to this complex problem. We are aware of the necessity of taking action at the earliest possible time and will do everything in our power to do so. However, we want to make sure that we afford careful and detailed consideration to all of the many proposals that have been urged upon us in order that we may determine which offer the most promise.

You suggest that while the Commission clearly cannot accomplish detailed allocation changes by June 1—the date by which a number of parties urge that action be taken—the Commission announce its preliminary conclusions before that date and then institute whatever proceedings may be necessary to implement them. While I cannot predict precisely when the Commission will take action, the highest order of priority is being given the subject, and I am confident that we will be able to take the next step in our proceeding within the next few weeks. As you point out, we will not be able to make final allocation changes

at this stage in the proceeding, but we will be in a position to issue a proposal for specific allocation changes, as well as suggestions contemplating longer range solutions to the television problem.

Sincerely yours,

GEORGE C. McCONNAUGHEY, *Chairman.*

[Inserted on June 11, 1956]

JOINT COUNCIL ON EDUCATIONAL TELEVISION,
Washington, D. C., May 22, 1956.

HON. WARREN G. MAGNUSON,
*Chairman, Senate Interstate and Foreign Commerce Committee,
Senate Office Building, Washington, D. C.*

DEAR MR. CHAIRMAN: Your committee has been studying current problems in the field of telecommunications, including the obstacles that are being encountered in utilization of the ultra-high frequency (UHF) channels allocated for television broadcasting. The Federal Communications Commission has likewise taken official cognizance of the UHF difficulties, and is presently engaged in a rulemaking proceeding to determine what action might be taken to improve the situation.

The Joint Council on Educational Television (JCET) is directly and deeply concerned with the UHF problem, and has participated both in the hearings conducted by your committee and in the proceedings before the Commission. Our most immediate interest, of course, lies in the channels that the Commission has reserved for noncommercial educational television, but we are fully aware that the future of educational television is dependent upon a sound allocations policy for the Nation as a whole.

Of the 258 channel assignments reserved for educational television, 86 are in the VHF and 172 are in the UHF range. There are 21 noncommercial educational television stations now in operation: 16 of these are VHF and only 5 are UHF. In addition to the five communities where educational UHF stations are already on the air, UHF channels have been reserved in New York, Los Angeles, Philadelphia, Baltimore, Washington, Cleveland, Buffalo, Atlanta, Kansas City, and many other communities in which large universities or other important educational institutions are located. It is apparent, therefore, that both the VHF and the UHF channels are of vital importance to educational television, and that its future development is seriously threatened by the adverse factors that have plagued and delayed the development of UHF television generally.

Accordingly, the JCET has followed with close attention the testimony before your committee and the comments that have been filed in the Commission's rulemaking proceeding. We believe that both inquiries are of great value, and in their light we have come to certain conclusions about the UHF problem, which are embodied in this letter.

Above all, we are convinced that the development of a satisfactory national television service, ample for the expanding and varied requirements of the American future, cannot possibly be achieved without vigorous and extensive exploitation of the UHF channels. Several proposals have been advanced which envisage the concentration of television broadcasting in the VHF channels, but these offer only a restricted and incomplete service wholly inadequate for our foreseeable needs.

The converse suggestion, that the VHF channels should be abandoned in favor of a purely UHF allocations system, is perhaps closer to the mark. Nevertheless, it does not appear feasible or desirable in the present state of the art. Certain technical problems in the UHF field, and the enormous investment by the public in VHF receivers and by broadcasters in VHF transmitters, alike dictate caution before so radical a shift is settled upon. If, in the course of scientific advance, a purely UHF service should emerge as the best solution, still there would necessarily be a considerable period of transition and conversion, to minimize capital sacrifices and avoid the loss of service to millions of viewers.

But whether the ultimate allocations basis of television broadcasting be purely UHF or both VHF and UHF, it is plain that the UHF channels must be a stable and vigorous if not the dominant component. "There is no known alternative," Dr. E. W. Engstrom of the Radio Corporation of America pointed out in the course of your hearings, "for we need the UHF channels in addition to the VHF channels for our still-growing black-and-white service and for the color service which is the newest of the mass communications media."

From the time of its inception as a broadcasting service in the Commission's 1952 television allocations plan, UHF television has confronted two primary obstacles: The existence of millions of receivers equipped only for VHF viewing, and slower technical development of UHF. These adverse factors have badly undermined UHF's ability to compete with VHF, and have tended to "snowball" so that UHF troubles are aggravated today far beyond what they were 2 years ago. The manufacture of all-channel receivers has declined, the viewing public has been slow to spend the money for conversion of VHF receivers to all-channel reception, networks have been reluctant to affiliate with UHF stations, and many UHF broadcasters have found it necessary to suspend operations.

If the present dangerous trend is to be checked, and UHF television put back on the road to health and growth, it appears to us that three basic steps must be taken:

(1) The manufacture of all-channel receivers must increase sharply, and substantially all receivers offered for purchase must be capable of all-channel reception;

(2) The competitive position of UHF must be bolstered by the creation and preservation of substantial geographical areas in which UHF is the sole or predominant television service; and

(3) The technical problems of UHF transmission and reception must be promptly and vigorously attacked, and the frontiers of the art pushed forward so that UHF will be as familiar as VHF to television engineers and servicemen.

It will be noted that the first of these measures is primarily the responsibility of the Congress, the second of the Commission, and the third of the telecommunications industry. In our opinion, each of the three is vital to the sound development of our national television system, and only by such a broad plan, and with the joint participation of Government and private industry, can a favorable resolution of this dangerous dilemma be achieved.

All-channel receivers.—At the inception of the UHF television service, it was hoped and widely expected that its growth would be sufficiently rapid so that the manufacturers of television receivers would, as a matter of enlightened self-interest, "push" the sales of all-channel receivers. For reasons which are common knowledge in the industry, these expectations have not been fulfilled. It is our understanding that fewer than 15 percent of the receivers currently being manufactured are equipped for all-channel reception, as compared with about 30 percent 3 years ago.

Of all the threats to the survival of UHF television, this is by far the most serious, for it is making a bad situation constantly worse. Nevertheless, in a highly competitive field such as the manufacture and sale of television receivers, it is unrealistic to expect that all-channel receivers will be produced in quantity under present circumstances. The only possible solution appears to be some governmental act that will make it economically advantageous for the manufacturers to abandon VHF-only models, and thus insure the distribution of all-channel receivers. We believe that this will require action by the Congress.

It has been proposed, for example, that the 10 percent Federal excise tax should be lifted from all-channel television receivers, and left applicable to VHF-only sets. Budgetary objections to this course of action may be insuperable, and suggest the alternative of raising the rate of tax on VHF-only sets, perhaps to 20 percent. Obviously, there are many possible variants of the basic proposition. One which might warrant consideration is reduction of the rate on all-channel receivers to 5 percent, the same as is applicable to most other comparable commodities.

Objection may be raised to such proposals on the ground that they would involve a tax discrimination against the inhabitants of areas served only by VHF stations. As we understand it, the purpose of the differential would be simply to insure that purchasers of new television receivers would obtain an instrument capable of receiving the UHF transmissions which, as a matter of national policy, will be a major component of television service throughout the Nation. However, the same objective might be accomplished without altering the tax situation, by an outright statutory prohibition—based upon the Federal Government's constitutional powers in such fields as interstate commerce and national defense—of the manufacture for public sale and distribution of television receivers not equipped for all-channel reception.

We have been reluctant to reach the conclusion that Federal legislation is called for. Whether by tax differential or penal provisions, the effect of the proposal will be to furnish an economic subsidy or statutory monopoly for all-

channel television receivers. Fortunately, and unlike the subsidies that have been granted in certain other fields, it may be reasonably expected that the need of preferential legislation for UHF television receivers would endure for only a few years.

Deintermixture.—Under the Commission's 1952 allocation plan, the VHF and UHF channels are intermingled throughout the country, and both types are often assigned side by side within the same communities. From an engineering standpoint this is an efficient basis, for any zonal or regional limitations on the use of frequencies leads to waste through their nonuse in the areas from which they are excluded. From an economic standpoint, however, the intermingling of VHF and UHF has subjected UHF television everywhere to the direct competition of VHF stations, on terms extremely favorable to VHF, and customarily disadvantageous or even fatal to UHF.

We do not believe that it is necessary or would be desirable to tear up the present allocations scheme and substitute one based on complete geographical segregation of UHF and VHF stations. We do believe, however, that UHF must be given a certain amount of protection against the competitive incursions of VHF, in particular areas where VHF service can be dispensed with or limited in quantity, without detriment to the quality or variety of program service available to the public. Such protection can be given by an allocations policy commonly referred to as "selective deintermixture."

In communities where three or more VHF stations have already been established, there is little that can be done for the protection of competing UHF stations, and their main hope will lie in the distribution of all-channel receivers and technical progress in UHF transmission and reception. But where UHF stations have acquired a foothold and are either free from the competition of VHF or have a chance to survive the competition of 1 or even 2 existing VHF stations, surely their prospects should not now be darkened by the establishment of additional VHF stations. So, too, there may well be particular areas in which a single existing VHF station could be required to shift to a UHF channel without unreasonable hardship to the viewing public and with considerable benefit to UHF service as a whole.

The Federal Communications Commission, to which Congress has delegated the authority and responsibility for television allocations, now has this problem under consideration in its current rulemaking proceeding. We are aware that the Commission's task is a delicate and difficult one. But it seems to us that the facts and logic of the present situation, and the serious plight of the UHF stations that are now threatened with even more extensive competition from VHF rivals, must inevitably lead the Commission to adopt a limited policy of deintermixture. Such deintermixture, to be most effective, should provide adequate separation of UHF and VHF markets.

Technical research.—In his recent address at the annual convention of the National Association of Radio and Television Broadcasters, the Chairman of the Federal Communications Commission proposed an immediate "crash research development program on UHF" to the furtherance of which all sections of the telecommunications industry would contribute. Chairman McConaughy proposed a "twofold approach * * * concentrating on both the UHF receiver and the UHF transmitter" and gave voice to the hope that better UHF receivers could be designated.

We believe that an intensive and broad-scale UHF research program is vital to both the rapid amelioration and the long-term solution of the UHF problem. Fortunately, there are encouraging signs that the telecommunications industry is aware of its responsibilities in their respect. For example, the Radio-Electronics-Television Manufacturers' Association has informed the Commission of their availability to "organize a program of study which * * * might encompass, for example (a) measurements to indicate the effective coverage of UHF broadcasting under various conditions of terrain and power; authoritative information of this kind has never been available; and (b) reliability and cost of receiving equipment in the UHF together with potentials for improvement."

Of course, such a research program, although the primary responsibility of the industry, should be undertaken in close consultation with the Commission and other interested Government agencies. Indeed, the entire UHF problem calls for cooperation between Congress, the executive branch, and the industry. To be sure, each of the three major steps that we have proposed is the primary concern of Congress, Commission, or the private companies, as the case may be.

Nevertheless, each of the three likewise requires mutual support from all sides if speedy and effective results are to be forthcoming.

We have mentioned, and wish to stress in conclusion, the need for prompt action. A critical situation has arisen, the resolution of which will inevitably be costly and, in some respects, painful. It would have been helpful if these or comparable steps had been taken earlier, but further delay will make the situation even more difficult.

A nation's capacity for growth and even for survival may be gaged by the vigor and resilience with which it treats its ailments and grasps its opportunities. How to achieve an ample and flexible system of television broadcasting is certainly not the smallest of the social challenges we face today. We strongly urge that your committee now take action on the basis of the useful inquiry that it is conducting, and we hope that our suggestions may be of assistance in the shaping of an effective program for the salvation and growth of UHF television.

On February 29, 1956, Ralph Steetle, executive director of the Joint Council on Educational Television, made an appearance before your committee in connection with the current proceedings relating to UHF. This statement is presented by the Joint Council on Educational Television as a supplement to the one presented by Mr. Steetle, and it is requested that it be incorporated as a part of the record of these proceedings.

Respectfully submitted.

ALBERT N. JORGENSEN, *Chairman.*

[Inserted on June 11, 1956 (with one enclosure)]

O'NEILL BROADCASTING CO.,
TELEVISION STATION KJEO,
Fresno, Calif., June 1, 1956.

Mr. KENNETH A. COX,
*Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

DEAR KEN: I am sending you, under separate cover, a coverage map of many of California's television stations which reach the Central Valley. These are actual station coverage maps received from the stations indicated on the map.

I would appreciate it if you would enter this map as a part of the record should there be more discussion as to whether or not white areas will be served by channel 12 in Fresno.

Also, enclosed is a copy of the 1956 ARB Metropolitan Area television coverage survey. I am sure the report for the city of Merced will stand to dispute the testimony given by Bill Lodge of the Columbia Broadcasting System as to the KJEO and UHF coverage in the city of Merced.

Please accept my thanks for the courtesies shown me on my trip to Washington, and I wish to commend you and your committee for the job you are doing for the salvation of UHF television.

Kindest regards.

Sincerely,

JOE DRILLING, *Vice President.*

1956 ARB METROPOLITAN AREA TELEVISION COVERAGE

TO OUR CLIENTS

The information contained in this report gives you a very material advantage over organizations to whom it is not available. If these firms obtain access to copies of the study, it not only represents a complete violation of ARB's regulations, but it greatly decreases your competitive superiority. Also, of course, any organization using this material without sharing the cost of obtaining it is unfairly creating higher costs for all subscribers.

In your own interest as well as ARB's, we, therefore, urgently request your cooperation in observing our regulations covering use of this report. These regulations are detailed on the introductory page.

Thank you very much.

AMERICAN RESEARCH BUREAU, INC.

INTRODUCTION

On the following pages are detailed results of studies conducted to determine television saturation, coverage, and viewing preference in 225 key markets (including 234 different cities) largely untouched in television audience research. The survey was conducted during the period January 10-February 5, 1956. Also appended are saturation data from the regular ARB metropolitan area reports in additional markets covered by these surveys.

The information was secured by calling approximately 500 families selected by random pattern from the appropriate telephone directories (including toll calls) in each city and asking the following questions:

1. Do you have a television set?
2. (a) Which TV channels can you receive on your set, and from which cities do they come?
(b) Are there any other channels you can get?
For each channel received, ask:
(c) About how often did your family turn on channel (give number) during the past 7 days--less than 3 times, or more than 3 times?
3. (a) Which channel is viewed the most in your home after 6 in the evening?
(b) Which the next most?
4. (a) Which channel is viewed the most in your home on weekdays before 6?
(b) Which the next most?

Interviewers were trained to probe sufficiently (especially on question 2), so that full information would be received. All markets were surveyed in exactly the same manner, and may be compared with each other. In some markets, where many different TV stations are available, interviewers had difficulty in obtaining responses to the "station viewed most and next most" questions, giving rise to high "no choice" figures. Whenever given, multiple answers were accepted with the results apportioned equally among the stations mentioned.

ARB has attempted to distribute the sample in each area within the standard metropolitan district, which in most cases is the home county. In some instances, for geographical reasons, this has not been feasible, and a modified area has been used. In stating the area covered if, in ARB's opinion, more than 80 percent of a county by population has been covered, the entire county is shown. In all other cases the area covered has been described as precisely as possible, omitting mention of any county which was covered by less than 10 percent of the sample. In cases where more than one city is contained in the local telephone directory, these other cities are listed and the aggregate population covered is estimated in the coverage statement.

All stations reported under "able to receive" by less than 20 percent of the television families in the area are not shown separately in this column or the "viewed more than 3 times" column. Only stations with more than 5 percent in any one of the "viewed most" or "next most" columns are shown in these categories. It is felt that this policy will lead to much more realistic coverage analysis.

All material in this report is based on directory sampling and is, of course, subject to sampling deviations and other factors beyond ARB's control. Every precaution has been taken to insure accuracy of the material. Beyond this, ARB can assume no further responsibility other than to correct errors, if any, as promptly as possible.

It is our belief that the results, although limited to telephone homes within the total directory zone, should be more than sufficient for practical business decisions.

Due to the fact that the following material is highly confidential and its possession by subscribers gives them a material advantage in the purchase and sale of television time, rather severe restrictions must be placed on the dissemination of the information contained in this report. All material is copyrighted and must be used only within the subscriber's own organization (including branch offices). No further copies may be made for outside distribution and, although personal presentations may be made using the report, no copies of the information may be left with outsiders. Any public issue of all or any part of this report to the press or any other outlet is strictly forbidden. Inasmuch as the subscribers to the report have carried the cost of the study, these restrictions must be applied out of fairness to them.

For further information about this or succeeding studies, please contact the nearest ARB office.

SAMPLE 520—MERCED, CALIF., JANUARY 1956

Television saturation

Percent of all homes..... 78

UHF saturation

Percent of all homes..... 77

Percent of TV homes..... 98

Channels being received

Channel	City	Percent of TV homes able to receive	Percent of TV homes which view station more than 3 times a week
KJEO 47.....	Fresno.....	98	96
KMJ 24.....	do.....	97	94
KVVG 27.....	Tulare.....	79	38
KOVR 13.....	Stockton.....	76	51
KPIX 5.....	San Francisco.....	23	5
KRON 4.....	do.....	22	3

NOTE.—Others less than 20 percent.

Channel viewed most and next most

Channel	City	Percent of TV homes station viewed—			
		Before 6 p. m.		After 6 p. m.	
		Most	Next most	Most	Next most
KJEO 47.....	Fresno.....	49	23	64	26
KMJ 24.....	do.....	25	43	26	56
KVVG 27.....	Tulare.....	2	4	2	5
KOVR 13.....	Stockton.....	3	4	7	9
Others.....		1	1	1	
No choice.....		20	25		4

NOTE.—Measurements based on sampling in Merced County, Calif.

SAMPLE: 520—TULARE, CALIF., JANUARY 1956

Television saturation

Percent of all homes..... 81

UHF saturation

Percent of all homes..... 79

Percent of TV homes..... 97

Channels being received

Channel	City	Percent of TV homes able to receive	Percent of TV homes which view station more than 3 times a week
KERO 10.....	Bakersfield.....	99	73
KMJ 24.....	Fresno.....	97	89
KVVG 27.....	Tulare.....	96	51
KJEO 47.....	Fresno.....	95	86

NOTE.—Others less than 20 percent.

Channel viewed most and next most

Channel	City	Percent of TV homes station viewed—			
		Before 6 p. m.		After 6 p. m.	
		Most	Next most	Most	Next most
KERO 10	Bakersfield	13	14	22	19
KMJ 24	Fresno	26	25	34	31
KVVG 27	Tulare	5	10	7	14
KJEO 47	Fresno	33	26	35	13
Others		2	1	2	3
No choice		21	24		2

NOTE.—Measurements based on sampling in the city of Tulare, Calif., and its immediate suburban area.

[Received after the conclusion of the hearings]

STATEMENT BY PHILIP MERRYMAN, PRESIDENT OF THE COMMITTEE FOR HOMETOWN TELEVISION, FILED WITH THE SENATE INTERSTATE AND FOREIGN COMMERCE COMMITTEE IN CONNECTION WITH THE COMMITTEE'S HEARINGS ON NATIONAL TELEVISION ALLOCATIONS

First, may I express the thanks of the Committee for Hometown Television for the opportunity to file this statement with your committee. Having presented the case for our committee at a previous hearing, my purpose now is to assess the recent testimony of the networks and the allocations proposals of the Federal Communications Commission as published June 25, 1956.

The FCC's recent hearings lasted 7 months. The real, rock-bottom net of these hearings—as shown in the FCC's June 25 proposals—is sad and simple: The FCC Commissioners have downgraded their original priority 2 in favor of achieving “* * * a nationwide, competitive television system,” a goal which is not even mentioned in the Federal Communications Act, which speaks rather of a “fair, efficient, and equitable” distribution of facilities.

You will recall that the FCC translated its congressional mandate into a series of priorities. Priority 1 was to provide all areas with at least 1 service, now about 90 percent attained. Priority 2 was to provide the largest possible number of communities with at least 1 television station, a priority still about 90 percent short of attainment. Priority 3 was to provide as many communities as possible with multiple service. It is worth noting in passing that the FCC considered the priorities as just that—goals to be sought in a descending order of preference.

But in its June 25 proposals, the FCC orders a series of deintermixture hearings forthwith—and, after concurring that conversion to all-UHF is the only way to achieve priority 2 (hometown television), it relegates that whole matter to the status of a long-term “study.” I submit that “study” is most often the polite synonym for “stall.”

As for deintermixture as presently applied by the FCC, it has almost nothing to do with priority 2. I can count on the fingers of one hand the number of communities which will get their first television facility as the result of such deintermixture. On the contrary, what the FCC's deintermixture is obviously aimed at is to increase competition in those areas already supplied with television. While this is an objective with which I can take no exception, it has nothing to do with the Communications Act's demand for a “fair, efficient, and equitable” distribution of facilities, and in any case ranks well below the requirement to supply as many communities as possible with television facilities of their own.

I think there is now no significant disagreement with the thesis that the future of United States television must be based on an all-UHF system. Consequently, all actions taken by the FCC from this point on must be judged by this criterion: Do these actions have as their primary objective the advance of United States television toward an all-UHF system? At this juncture, any administrative action with a lesser goal is merely obstructive.

What happened? How could the FCC spend 8 months considering hundreds of written comments and listening to millions of words of testimony before this committee with the avowed objective of implementing priority 2, only to bypass it in favor of this contraband concept of “competitive” television?

The answer lies partly, I think, in those "millions of words" I just referred to, words spoken mostly by the representatives of networks. The network heads testified on the defensive, under attack for the practices of option time and "must buy" and monopoly. Pressed on the latter point—monopoly—Mr. Kintner for ABC and Mr. Sarnoff for NBC both took the position that there was nothing wrong with TV that more outlets wouldn't cure, a position with which the FCC also agrees publicly in its proposals of June 25. The trouble was, however, that these admissions were soon lost to view in the networks' vigorous campaign for what they called more competition, by which they meant more competition between networks, no matter with the price to be paid by the loss of local network facilities, the loss of what I might term "priority 2 stations."

Let me say parenthetically that the Committee for Hometown Television has never advocated the destruction of networks, nor Federal legislation controlling network operation. Nor have we advocated elimination or reduction of option time. We recognize that so long as networks are a primary necessity for the national distribution of programs, they must have adequate option time privileges. We do deny that networks are the only possible means of distribution; and we do maintain that they should not be artificially sustained by Government policy to the detriment of competing systems of program distribution. But it was not difficult to see that when the networks preached "competition" within this context, what they were in fact seeking would simply bypass priority 2 and the locally owned facility.

Unfortunately, in its search for a solution, the FCC appears to have lost its way. "A nationwide, competitive television system" has been substituted for the original "fair, efficient, and equitable" distribution of facilities as the primary goal. Deintermixture has received immediate action, while conversion to all-UHF has been slowed down to a study. In a pattern with which the FCC has already made us uncomfortably familiar, the words are for hometown television but the deeds are for the networks. However good its intentions may be, the effect of the FCC's latest proposals is to line it up once again on the side of the networks and monopoly.

In television allocations, the truest test of intentions today is to be found in the answer to the question: Will this action give another community its own television facility? When we put this test to the FCC's latest actions, the answer is "No."

I would not pretend that each witness before the FCC is not in some sense a special pleader, and if I make the impeachment to the networks, I must also accept it for the Committee for Hometown Television. Of course, one reason that we have fought for the implementation of priority 2 is that it will benefit the UHF operators and independent VHF operators whom we represent. But I must make a distinction between our special pleadings and those advanced by the networks. Our's correspond precisely with the public interest, with the burden of the Communications Act, with the FCC's own avowed policy for protecting the public interest. The pleadings of the networks, on the contrary, run counter to the public interest, reaching their nadir, I submit, in the submissions of CBS. Here we had Mr. Frank Stanton basing his case for the networks on repeated assertions that the public interest required adoption of his views and defense of his practices; yet Mr. Stanton is also the spokesman for the network which seriously advanced as its solution to the allocations problem the complete jettisoning of UHF in favor of its all-network, 100-market concept; and Mr. Stanton is also the gentleman who has recently been quoted in the press to the effect that he did not propose to leave the committee's hearings with less than he went in. I submit that in the special pleadings you gentlemen are bound to hear, it makes a vast difference whether a position corresponds to, or is inimical to, the public interest.

You may perhaps recall that when the Committee for Hometown Television first advocated wide-ranging deintermixture, we stood alone. Today, we are, of course, gratified to see that the FCC has adopted this much of our program. But if we favor deintermixture, and the FCC has given us deintermixture, you may wonder why we now seem to belabor the FCC. The reason is simple: we favor deintermixture as an interim, ameliorative measure, the first step on the road to conversion to UHF. Without the second and bigger step of conversion to UHF, deintermixture—while welcome—is not enough; it gets us only part way to priority 2, half way to hometown television.

But the FCC, in its June 25 proposal, treats deintermixture as an end in itself, as a step to insure that " * * * nationwide competitive system." In other words, the FCC looks on deintermixture as a means for satisfying the networks' spurious and self-serving cries for more duplicating outlets for the use of the

networks. This kind of deintermixture corresponds much more closely to the demands of priority 3, than to those of priority 2.

The FCC's report, having dealt with deintermixture as a thing-in-itself, then changes the subject and proposes its study of UHF conversion in such language that it is clear that implementing action isn't even yet on its agenda.

What then does our committee propose as the correct course of action?

First, and above all, I might repeat what we said in our original comments before the FCC, filed last December 9: "Both the Congress and the FCC have agreed that it is categorical national policy to assure the future of hometown television, priority 2. To implement this policy, the Commission must restore its priority 2 as a current objective." Which is to say, deintermixture must be treated, judged and granted only as part of an overall plan to convert to UHF, and not as a sop to the aspirations of networking.

Second, since conversion to UHF now seems inextricably tied up with the hearings proposed by the FCC, let the FCC make haste. Speed is essential at this stage of the operation, essential to rescue the UHF stations still hanging on, essential to preserve the integrity of the plan from the attacks which the networks will continue to mount, essential because FCC Commissioners come and go, administrations come and go.

It seems to me that, in one way, American television has come a long way in the last 7 months. At least we have mined out one essential truth: The only way to achieve a real national television system is through the unrestricted use of UHF. Let us not fritter this discovery away, let us not allow it to be watered down, dissipated in a torrent of words, confused by specious counsel. Let's hang on to it, protect it, and so be able to use it.

To this end, I say that nothing will be as useful, indeed as essential, as simple administrative speed. If the FCC must hold its hearings, let it hold them now, and finish them soon, while the momentum built up by these hearings is still an effective force.

Opponents of priority 2 have already revealed at least one tactic they propose to use: Delay. If we should go all UHF, goes the new line, we must be careful not to rob the set-owning public. Agreed. Now let me quote you the words of Mr. Henry C. Bonfig, president of CBS—Columbia Broadcasting System—as reported in the Wall Street Journal of January 9, 1956. Says the Journal "Mr. Bonfig said during the last quarter of 1955 nearly 1 out of every 3 TV sets sold was a replacement."

Our third proposal is that the FCC proceed with UHF conversion on a case-by-case basis.

Ever since the FCC issued its sixth report and order, it has been evident that the Commissioners had committed themselves to an erroneous policy, and that policy has been under steady and mounting attack. Under these circumstances, the Commissioners have quite understandably come to rely more and more on their engineering standards, less and less on their policy in making decisions. Policy has been debatable; but engineering standards are immutable and can be cited without recourse.

The result is that today the Commission is using a set of standards wholly inapplicable to the facts, in lieu of policy. A case in point is the table of separations, which has been invoked time and again to deny applications, as though the table were a sacred truth. But it is now evident to everybody—including the FCC, which proposes to amend it—that this table is unrealistic.

To overcome this lag between fact and policy with the least possible dislocation, we recommend that the FCC approach each application on a case-by-case basis, that is, on its own merits. The intent here, of course, is that in all applications which could bring television to a new community, the FCC occupy itself as a matter of policy in searching for reasons or methods by which the licenses can be granted rather than in applying with an even, judicial hand some totally inapplicable rule simply because the sixth report and order created it.

Finally, let me speak for the UHF stations still lost in a sea of V's. Today we are no better off than we were 7 months ago; in fact, about a dozen UHF operators have given up in that period. The FCC now holds out the prospects of all UHF conversion, but to us this may be useless boon. We will all be dead and gone unless the FCC acts soon.

It has been suggested in these hearings that the main reason UHF operators find themselves in trouble today is not because of the failure of FCC policy but because they are poor businessmen, inexperienced in the field of entertainment. The facts speak otherwise. For instance, the four stations which originated the Committee for Hometown Television all operate very successful radio stations,

and have for long periods. For instance, my own station, 30 years old this year, is now enjoying the most prosperous year in its history, is also the current winner of the national DuPont Award for Public Service.

We find ourselves in the present dilemma largely because we relied on the FCC to implement the policy it established, specifically priority 2. We are the casualties of an administrative failure.

We agree that the public's investment in VHF sets must be protected. But by the same token, we feel that the UHF stations which the FCC led down the garden path also have their claim to administrative dispensation.

It is not enough, I submit, to say with the FCC that we should have all UHF and maybe some day we will. It seems to us that the 100 UHF stations now facing or through bankruptcy should not summarily be dismissed; within the bounds of the public interest, speed and ingenuity and good will should be enlisted in the effort to bring hometown television to our own communities.

By this we mean—

If an existing UHF station is the only television facility in its community (and therefore a means of implementing priority 2) it should receive all the administrative help it needs to survive.

If that administrative help must include a temporary VHF license, pending conversion to all-UHF, then the FCC should do its utmost to grant it.

If granting a temporary VHF license would involve some viable and temporary modifications of the FCC's antiquated engineering standards, then the FCC should undertake them.

And by this we mean: The way to build the UHF system we want is to protect the UHF stations we've got.

[Received after the conclusion of the hearings]

FEDERAL COMMUNICATIONS COMMISSION,
Washington, D. C., July 24, 1956.

Mr. KENNETH COX,
Counsel, Senate Interstate and Foreign Commerce Committee,
Washington, D. C.

MY DEAR MR. COX: In keeping with informal conversation with our office, enclosed are three tables:

Fifteen communities in which UHF stations continued to operate after VHF went on the air.

Sixteen communities in which UHF stations suspended operation after VHF went on the air.

Number of postfreeze TV stations in operation, July 1952 through June 1956.

Very truly yours,

DEE W. PINCOCK, Acting Secretary.

15 communities in which UHF stations continued to operate after VHF went on the air

State	City	Commercial assignments		On air		Off air, UHF
		VHF	UHF	UHF	VHF	
Alabama	Montgomery	1	2	Apr. 22, 1953	Nov. 6, 1954	July 15, 1954
California	Bakersfield	1	1	Aug. 20, 1953	Sept. 26, 1953	
	Fresno	1	3	May 26, 1953	May 10, 1956	
				Sept. 20, 1953		
				Feb. 13, 1954		
	Sacramento	2	2	Sept. 30, 1953	{ Mar. 7, 1955	
					{ Sept. 2, 1955	
Florida	Tampa-St. Petersburg	2	3	May 16, 1953	{ Jan. 26, 1955	
Georgia	Columbus	1	1	Aug. 27, 1953	{ Mar. 14, 1955	
Illinois	Rockford	1	1	Apr. 29, 1953	Nov. 8, 1953	
Louisiana	Baton Rouge	1	2	Apr. 14, 1953	Sept. 18, 1953	
	Lake Charles	1	2	Nov. 2, 1953	Mar. 30, 1955	
North Carolina	Asheville	1	2	July 5, 1953	Sept. 21, 1954	
	Winston-Salem	1	1	Sept. 18, 1953	Sept. 18, 1954	
					Sept. 29, 1953	
Oregon	Portland	3	2	Sept. 19, 1952	{ do	
					{ Mar. 5, 1955	
South Carolina	Columbia	1	2	{ Apr. 23, 1953	{ Oct. 24, 1953	Jan. 21, 1956
				{ Sept. 1, 1953		
Texas	Beaumont-Port Arthur	2	1	Apr. 9, 1954	Apr. 1, 1955	
	Corpus Christi	2	2	June 9, 1954	May 6, 1956	

16 communities in which UHF stations suspended operation after VHF went on the air

State	City	Commercial assignments		On air		Off air, UHF
		VHF	UHF	UHF	VHF	
Alabama	Mobile	2	1	Dec. 29, 1952	{ Jan. 14, 1953 Aug. 29, 1955	Aug. 1, 1954
Arkansas	Little Rock-North Little Rock	2	2	Apr. 4, 1953	{ Mar. 24, 1954 Nov. 14, 1955	Mar. 13, 1954
California	Stockton	1	2	Dec. 18, 1953	Aug. 20, 1954	Apr. 30, 1955
Florida	Pensacola	1	2	{ Dec. 10, 1954 Oct. 16, 1953	Jan. 13, 1954	{ Dec. 18, 1955 Oct. 31, 1954
	West Palm Beach	2	1	Aug. 31, 1952	{ Aug. 19, 1954 Dec. 27, 1954	Mar. 1, 1956
Georgia	Macon	1	1	July 25, 1953	Aug. 29, 1953	May 31, 1955
Kansas	Wichita	2	1	Aug. 15, 1953	{ Oct. 16, 1954 Aug. 30, 1955	Apr. 30, 1956
Louisiana	Monroe	1	1	Aug. 11, 1953	Sept. 27, 1953	May 1, 1954
Missouri	Lewiston	1	1	Nov. 25, 1953	Aug. 3, 1954	Mar. 25, 1955
	Portland	2	1	Aug. 27, 1953	{ Dec. 1, 1953 Apr. 21, 1954	Dec. 16, 1954
Minnesota	Duluth-Superior	3	4	May 31, 1953	{ Feb. 23, 1954 Mar. 15, 1954	July 15, 1954
Mississippi	Jackson	2	2	Jan. 20, 1953	{ Dec. 20, 1953 Mar. 15, 1954	May 31, 1955
South Carolina	Greenville	1	1	July 15, 1953	Dec. 26, 1953	Apr. 29, 1956
Texas	Tyler	1	2	Aug. 24, 1953	Oct. 14, 1954	Oct. 23, 1954
	Waco	1	1	Oct. 17, 1953	Mar. 30, 1955	Dec. 31, 1955
West Virginia	Charleston	1	1	Sept. 17, 1953	Aug. 16, 1954	Feb. 12, 1955

¹ Station resumed operation on this date.

Number of postfreeze TV stations in operation, July 1952-June 1956

	Number of VHF stations			Number of UHF stations		
	Going on the air	Going off the air	Total on air end of period	Going on the air	Going off the air	Going on air end of period
July-December 1952	11	0	11	6	0	6
January-December 1953	110	1	120	117	2	121
January-December 1954	69	3	186	25	29	117
January-December 1955	49	0	235	9	27	99
January-June 1956	20	0	255	4	9	94
Total	259	4	255	153	159	94

¹ These totals refer to the number of different UHF stations which went on the air and off the air during the above period. The columns do not add to the totals shown since 8 UHF stations went on the air twice during this period; of these 8, 3 went off the air a second time while 5 were still on the air as of June 1956

[Received after the conclusion of the hearings]

UNITED STATES SENATE,
COMMITTEE ON FINANCE,
July 27, 1956.

HON. WARREN G. MAGNUSON,
United States Senate, Washington, D. C.

DEAR SENATOR: Thank you very much for your letter of July 16, urging the elimination of the excise tax on all-channel color television sets

Let me assure you that I shall keep your interest in mind and in the event hearings are held on this subject next session, you will be notified and given an opportunity to personally present your views.

With kindest regards, I am,

Cordially yours,

HARRY F. BYRD,
Chairman.

[Received after the conclusion of the hearings]

FEDERAL COMMUNICATIONS COMMISSION,
Washington, D. C., August 6, 1955.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Interstate and Foreign Commerce,
United States Senate, Washington, D. C.*

DEAR SENATOR MAGNUSON: This is in reply to your letter of July 16, 1956, which refers to my letter of June 6, 1956, to you, in which was enclosed an exchange of correspondence between Senator Bricker and myself together with a copy of certain financial data for 1955.

This same information was submitted to Congressman Celler on the same basis as that on which it was furnished to you, for his use in connection with hearings before the Antimonopoly Subcommittee of the House Judiciary Committee. You have been correctly informed that it has now been made a part of the record before that subcommittee.

Sincerely yours,

GEORGE C. MCCONNAUGHEY,
Chairman.

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