

THE DEVELOPMENT

of the

TELEVISION MARKET

IN THE POST-WAR PERIOD

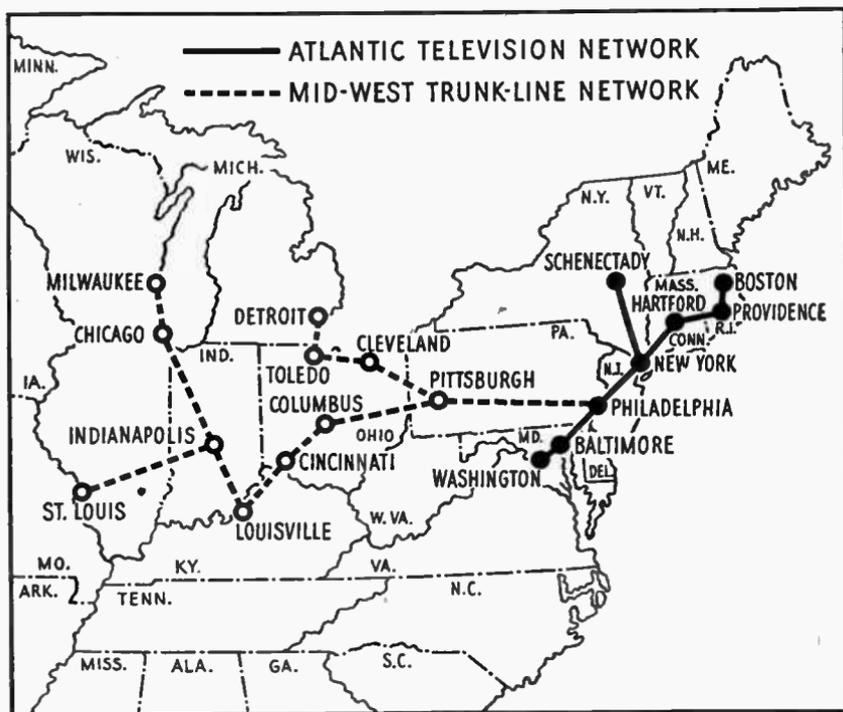
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TELEVISION NETWORK POSSIBILITIES



The first television market would logically comprise New York, Philadelphia, Albany-Schenectady, Chicago and Los Angeles, where television broadcasting facilities now exist, with the probable early addition of Cincinnati.

It can be assumed that three or four years after the commercial resumption of television, Washington, D. C., Baltimore, Hartford, Providence and Boston will also have television transmitters. These cities, together with Philadelphia, New York and Albany-Schenectady could be interconnected with a television network circuit about 600 miles long (shown in solid lines above), capable of serving more than 33,000,000 people.

An additional 1,500 miles of network circuits could link the Middle West with the Atlantic Seaboard, as shown by the dotted lines. Total market served by network television would then be 44,000,000 people or 47 percent of U. S. purchasing power.

THE DEVELOPMENT OF THE TELEVISION MARKET IN THE POST-WAR PERIOD

Television broadcasting, obviously, cannot become a substantial, self-supporting, profitable advertising medium until television receivers are in hundreds of thousands—yes, millions of homes. There are many different views concerning the speed with which television will go forward after the war. The technical and economic problems of building stations in key cities, of interconnecting those stations by network facilities, and of making available audience-building television programs are problems that constitute a real challenge to the engineering, manufacturing, business management, entertainment, and advertising brains of the United States.

There are some who say that the problems are so vast that they are virtually insoluble. There are others who are more optimistic—and look forward to the day when television broadcasting programs will be as common in the home as radio broadcasting programs are today. It is the views of the latter group that I present tonight.

Low-cost Receiver Answer to Many Problems

To make television a nation-wide broadcasting service will involve the investment of millions of dollars in studios and transmitters to be located in the key cities of the United States; and more millions of dollars for the building of network facilities and the production of suitable television advertising programs. Television cannot succeed without these services—but the answers to these problems would rapidly develop if the biggest problem of all were solved—namely, *an acceptable low-cost radio television receiver*. This is the number one problem of the postwar television industry.

Given a good low-cost television receiver that is within the buying range of the average American home, then broadcasting facilities and program service will develop with a speed which will amaze even the most ardent friends of television.

Why do I say this?

Because:

1. Existing radio station owners are smart enough to know that if acceptable television receivers can be produced for the mass market, television audiences will build at a rapid rate. This means that the operators of a television station will not have to wait an indeterminate number of years before they have television audiences large enough to produce substantial advertising revenue with which to pay operating costs and show some profit.

2. The application for television licenses by 100 or more prospective operators across the United States, which I believe the advent of an acceptable low-cost television receiver would bring forth, would have a salutary effect on the price of television transmitters and studio equipment. It would mean that manufacturers—instead of building one, two or three transmitters at a time—would build, possibly, 20 to 25 at one time. The lower prices made possible by this semi-quantity production as compared with the cost of tailor-made equipment would encourage still more enterprising business men to go into the television broadcasting business. Lest you think that this estimate of 100 or more television transmitters is over-optimistic, may I call your attention to the fact that the number of television broadcasting stations in existence, plus the applications on file with the Commission for experimental and commercial television broadcasting permits, total about 50.

3. The business interests erecting television transmitters in the key cities of the United States would create a tremendous pressure for the development of network facilities. Again, some enterprising organization will see that the combination of the rapid development of television facilities in a number of key cities of the United States, and a mass market price for the television receivers, would in the course of two or three years create an economic foundation for the profitable operation of network facilities, thus firmly establishing chain network television. These network facilities will also be available for frequency modulation programs and facsimile.

4. The big national advertisers would recognize that the existence of low-price television receivers would assure the rapid development of a vast home television audience. Future television advertisers will want to get in on the ground floor with television programs. The programs put on by these sponsors will be good programs—even though in the first two or three years the cost of television advertising per unit of circulation may be greater than advertising in already established advertising media. These marketing leaders know that television will be not only the greatest advertising force in the world—but the greatest sales force as well. For the first time, it will be possible for the manufacturer or distributor of merchandise actually to demonstrate his product

or products in millions of homes simultaneously and at extremely low cost. That is more than effective advertising. That is effective selling.

High Percentage Would Buy \$200 Receiver

Is there any foundation for believing that this is the way that television is going to develop in the postwar period? I believe that there is.

Recently, we made a survey in 11 cities of a cross-section of the public by age, income and sex. Among the questions we asked were:

Would you or your family consider buying a radio and television receiver if the price were \$400.00?

10.3% answered "Yes."

To those who said "No," we asked:

"Well, would you buy if the price were \$300.00?"

The cumulative percentage became 19.9%.

To those who still said "No," we asked:

"Well, would you buy if the price were \$250.00?"

The cumulative percentage became 34.3%.

To those who still said "No," we asked:

"Well, would you buy if the price were \$200.00?"

The cumulative percentage became 61.3%.

From the foregoing, the conclusion seems inescapable that when, in the postwar period, the radio industry produces a *good television receiver in the \$200 price range*, a very high percentage of the homes of the United States will be ready to buy television receivers as soon as service is available to them. Such a receiver, I believe, is possible—based on 1940 labor and material costs, and assuming no excise taxes. Of course, the postwar price would be increased by the factors of inflation and excise taxes.

Estimates Based on Present Standards, Allocations

We have prepared some estimates of the probable postwar rate of market development for television once there has been a complete agreement on standards approved by FCC which would give the industry the "green light" without any "ifs." It has been assumed for estimating purposes that there will be no changes in the standards or in the place which television occupies in the broadcasting spectrum, which might substantially delay the start of television or bring about more complicated engineering and manufacturing—thus making improbable, at least in the immediate postwar period, a \$200.00 television receiver as previously described.

I have followed with interest all of the statements by the Chairman of the Federal Communications Commission, James Lawrence Fly, on postwar television. I believe that I am correct in interpreting his thinking as being in favor of the rapid postwar development of television. Mr. Fly, who has given careful thought and study to television, has been quoted in the public press as saying at the joint meeting of I.R.E. and R.M.A. in Rochester, New York, in the fall of 1942 as follows:

"We can confidently predict a great expansion of the television and frequency modulation broadcast and general communications services, and planning for their proper development is definitely in order."

The report in **RADIO AND TELEVISION WEEKLY**, of October 6, 1943, on a talk given by Chairman Fly before the Advertising Club of Boston, is as follows:

"Largely because of the development of television and frequency modulation, the radio industry 'will not be a postwar problem child that we shall have to worry over.' The industry will take up 'no small amount' of the unemployment slack after the war, he forecast."

The estimated postwar television market projections that follow are based on television as we know it today and assuming that it can go forward without undue delay in the postwar period.

Television broadcasting facilities exist in New York, Philadelphia, Albany-Schenectady, Chicago and Los Angeles. I believe that a television station in Cincinnati could begin broadcasting shortly after the war when the needed equipment to complete this station is made available.

The First Television Market

The foregoing cities, assuming no radical change in broadcasting standards or allocations, would logically be the first television market. This first television market has 25,907,600 people, 7,410,922 wired homes and 28.46% of the U. S. buying power. Television coverage of only 10% of these homes would in itself constitute a very important new advertising medium, particularly when one considers that the effectiveness of television advertising per unit of circulation will undoubtedly be many times greater than that of any other form of advertising. Ten percent would represent 741,000 homes with television, or a probable postwar audience of over 7,000,000 people. In my opinion this could be attained approximately two to three years after the full commercialization of television. Three of these markets, New York, Philadelphia and Albany-Schenectady, have already broadcast television programs originating

at a central source—that is, NBC, New York. Thus, the nucleus of television network operation has already begun.

Television Networks

We can assume further that within three or four years after the commercial resumption of television, Washington, D. C.; Baltimore, Maryland; Hartford, Connecticut; Providence, Rhode Island, and Boston, Massachusetts, will have television transmitters. These cities, together with Philadelphia, New York, and Albany-Schenectady, could be interconnected with a television network circuit about 600 miles long. This network circuit would make television broadcasting service available to 33,336,000 people, 9,379,039 wired homes, representing 36.62% of the total U. S. buying power.

An additional 1,500 miles of network circuits could link the Middle West with the Atlantic Seaboard, bringing television service to Pittsburgh, Cleveland, Cincinnati, Indianapolis, Detroit, Chicago, St. Louis and Milwaukee. This would make television broadcasting service available to an additional 10,725,400 people living in these key cities—bringing the total market served by about 2,100 miles of network facilities to 44,061,500 people and 47% of the U. S. purchasing power.

This trunk line television network just outlined, with the secondary networks that would be offshoots from it, would serve the 19-state area bounded by Illinois and Wisconsin on the West and Virginia and Kentucky on the South. There are approximately 70,000,000 people in this area. It represents approximately 62% of the purchasing power of the country. All of this development can be expected to take place approximately five years after the full commercialization of television.

In approximately five years after the commercial resumption of television, television transmitters located in 157 key cities of the United States should be making television program service available to a primary market consisting of 72,159,000 people, 17,252,000 wired homes, or 59.6% of the total and 61.5% of the United States purchasing power. An additional ten million people should have television available to them by secondary television network developments. When television service is available to this area, television receiver sales should be at the rate of approximately 2,500,000 units per year at an average retail price, based on 1940 costs, of about \$200.00.

Automatic Rebroadcasting Transmitters

It would also be reasonable to expect that by the end of the fifth year,

after the full commercialization of television, the engineers of the industry should be able to develop a low-cost automatic rebroadcasting television transmitter which could be located in the areas which are outside the broadcasting scope of the television transmitters located in the 157 key cities of the United States. This transmitter would be automatically turned on at the beginning of the network broadcasting day and automatically turned off when the program service for the day was completed. Once a month, or as often as required, a service engineer would visit such an automatic rebroadcasting transmitter to keep it in peak operating condition.

Such a development will make it economically feasible to bring television service ultimately to practically every home in the United States. Assuming such a development takes place, and we have every reason to be confident that it will, then it would not be unreasonable to assume that within ten years after the full commercialization of television, television service would be available to 23,700,000 wired homes or 80% of the wired homes of the United States. This would represent a population of about 100,000,000 people and approximately 82% of the total U. S. buying power. Television industry sales at this point should be, approximately, 3,500,000 units per year for a total retail billing of between six hundred million and seven hundred million dollars (\$600,000,000 and \$700,000,000). This billing, together with replacement tubes for existing receivers, service, transmitter sales, television advertising revenue, etc., will make television the billion dollar industry that many have prophesied it will be.

There have been many predictions concerning all of the great new things which will be available to the American public when the war is over. Television will not spring forward as an industry the day the fighting ceases. It may be a year, or two or three years, after the war before television is ready to go forward on a commercial basis. That depends upon the character of the recommendations made by the Radio Technical Planning Board and the action taken by the Federal Communications Commission on the recommendations by that Board. Of this, though, we can be certain—that the generations that come after the war will take home television service just as much for granted as the present generation takes for granted the radio set which, at the push of a button, makes available the finest entertainment and educational programs of the United States and, instantaneously, brings us voices and music from across the seven seas. Today, we only hear those programs. Tomorrow, we will see them as well as hear them.

That is the promise of television.