

# LO-POWER COMMUNITY TV

August 1981



About our cover--

# MEET Mr. EASTON

author of our feature article on programming

ANTHONY T. EASTON is President of Easton Research and Development Company in San Francisco, an engineering and market research firm specializing in developing high-technology products and services for US and international markets. Mr. Easton is also founding Chairman of the Graduate Department of Telecommunications Management at Golden Gate University, the nation's only MBA program in the field. He is a member of the Golden Gate University faculty.

Prior to joining Golden Gate University, Mr. Easton was a member of the faculties of Strayer College and The American University in Washington, D.C. Previous assignments have included positions with NASA's Apollo project, Bendix Radio Corporation, Western Electric, and General Electric Corporation.

Current and former clients of Mr. Easton include GTE, E-Systems, Harris Corp (Farinon Electric subsidiary), ROLM Corporation, TYMNET, SP Communications, Westinghouse Broadcasting, and Thomson-CSF.

Mr. Easton has written numerous books and articles in the field of telecommunications management and futures technologies, and has conducted over 100 college-level courses in telecommunications, computer sciences and applied management fields. He has spoken at symposiums and conferences throughout the world in the fields of telecommunications and high technology. Mr. Easton is currently at work on a new book on Satellite Television Communications to be published by Playboy Press in the fall of 1981.

Mr. Easton received his bachelor's degree in Engineering Sciences from Johns Hopkins University and a dual-concentrate MS Degree in Management of Technology and International Business from The American University. Mr. Easton is a member of the Institute of Electrical and Electronic Engineers, the Society of Professional Engineers, the World Future Society, and the Explorers Club, among others. He is listed in Who's Who in America.

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Lo-Power Community Television magazine and associated low power manual and other publications are edited and published by Harlan L. Jacobsen to bring together the information required to make the concept of low power television work. People already in the broadcasting business well know many of the potentials and methods needed to make low power a tremendous financial success. Others, who have this one golden opportunity to get into television broadcasting should be made aware of how they can use this new service to their, and the public's great benefit.

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# H D HIGH DEFINITION:

## Opportunity for Low Power Broadcasters

How would you like to have the best picture in town on your low power station? Quality so good, it would be undetectable from motion pictures shown directly, and in some cases exceed that quality? Operate a station whose viewers were mostly the Cadillac set, with advertisers wishing to reach them willing to pay a heavy premium?

Your picture would be so good (and unavailable from others), that cable systems for miles around would spend money to get it to their viewers. Public places like bars and other public viewing areas would have your low power station tuned in. It would be so unique a TV station that affluent people would pay considerable money to receive your signal 20 miles further out than you would expect to have viewers.

### YOU MAY WANT TO RUN A H.D. LOW POWER STATION!

What is H.D.? It is High Definition Television, expected to take the country by storm, once it is available. It is far more of an improvement over regular Color TV than Color TV was over Black and White. It is 1125 lines of picture composition, more than double the lines (525) and more than four times the number of resolvable picture elements (PEL's), 25% more frames per second and ample room for maximum color carriers. Stereo sound tops off the quality aspect.

The present 525 line setup for American TV was established way back when by the FCC. They set standards, in their infinite wisdom, under the assumption that it would never be technically possible to make a picture tube larger than 12½ inches. 525 lines would suffice. Europe has over 600 lines, and is radically better quality (the PAL system).

To receive this high quality H.D.T.V. that you are broadcasting will require a specially adapted (probably projection TV) set. Such special sets will operate with either H.D. or conventional scan systems, depending upon which channel they are tuned into. Regular TV signals appear on large projection screens with discernible lines, and somewhat fuzzy. H.D. will be breathtaking in comparison.

High definition has been pushed by CBS and technically developed by Sony. Cameras, TV receivers and just recently a VTR for H.D. have all been perfected.

The only technical holdup is technical compression.....you don't get something for nothing..... higher definition requires wider video bandwidths.... to compress the 5 channels wide of spectrum space required for H.D. into the space of one channel. How is this done? Digitally..... the present analog video transmission system is wasteful of bandwidth. As the cost of complex digital integrated circuits has declined (through microcomputer and digital watch technology), digital compression and transmission has become economically feasible.

Once this is engineered and digital techniques completed H.D. will be available over the air. Closed circuit and industrial users will start using it before that.

It is hoped that, this time, the "standards battle" which accompanied creation of early TV scanning standards, then the transition to Color TV, stereo FM broadcasting techniques, and the stereo long playing record, can be avoided. Historically, each time a technological breakthrough was to be made universally available over the past few decades, there were competing "systems", incompatible with each other, requiring that the

FCC, or sometimes the buying public, as in the case of VHS vs. Beta VTR standards, make a choice. H.D., hopefully, will be set as a single standard before people are forced to invest in more than one version, only one of which would eventually survive.

Within 2 to 5 years (about the time you finally get your LPTV license you applied for in 1980), expect nearly half the theatres in the U.S. to have satellite receivers and H.D. projectors. Hollywood will be able to premiere movies at the same time in theatres all over the country. The projectionist will be unemployed. Quality will be as good as with film shown previously. H.D. is going to be available in Cinemascope® aspect ratio (height to width).

Look for closed circuit fights, sporting events and all major large-drawing events to be switched to H.D.

Look for regular TV producers and movies to soon switch to direct production in H.D. rather than film.

At least one Direct Broadcast Satellite (DBS) channel will undoubtedly be set aside for H.D.. To receive this, the viewer will need a small, garbage-can-lid size, parabolic receiving antenna. A down converter and a digital expander TV set made for H.D. (probably a projection set.)

As a low power station only, you can afford to go to H.D. All the regular stations are concerned with is big numbers. They need lots of receivers to get their ad rates. So, regular full service stations are not going to go to H.D. for a long, long time.

There will initially be only a few H.D. sets, so, just like when color came out, viewers with color sets passed by competing B/W programming to watch color programs. H.D. owners will note that the picture in H.D. is so much better, they will tend to watch mostly H.D.

Now, here is where you come in. You have a LPTV station in a big market and you become the only H.D. station in town. You pick up from the satellite H.D. channel and local viewers can now get H.D. on regular antennas instead of having to get a dish and a downconverter. The DBS broadcaster gets additional viewers and you have a primary program source. You produce local commercials (reproduced from film) and you do local live programming. Cost to get into H.D.? Cameras will theoretically not be much more expensive than regular cameras, except that they will not be producing for a mass market, so you can expect costs for a while to be at least \$20,000 for a good H.D. industrial grade camera.

You will need two. No modifications in your transmitter, or very little. You will need a digital compressor.

You are now ready to become the prestige station in town. All the "Got Rocks" (people with money) will shortly be getting H.D. TV Sets. Who will they be watching? Mostly your station.

Getting a LPTV license now is like buying a piece of land just outside of town. It's nice to have some idea what you're going to do with it, but not necessary to decide when you buy. It will be helpful to know or have in the back of your mind what it might be good for, but not necessary to make any decisions now. Also true in LPTV, by the time you get ready to go on the air, just like that piece of land, lots of people are going to come around making you offers to do something with that land. Some of these potential uses may not have even existed when you bought the land.

Rest assured your LPTV channel will, by the time you get it licensed and built, have lots of alternative uses that you will be able to really get excited about. (We hope you're not too old by then.) You do not have to concern yourself about decisions on what you are going to program yet. Right now, you are doing what is necessary to get licenses (and helping with the politics of getting the FCC off their duff). We run these articles on potential uses and methods to help you be informed what your potential alternatives are. H.D. looks like a very viable alternative for at least one LPTV station in each city.

‡ PEL- Picture Elements: each scan line is limited, by the bandwidth of the system, and by the size of the scanning beam, to a maximum number of individually resolvable "dots" or picture elements. With the U.S. system of 525 lines, this amounts to approximately 400,000 PEL's per frame. Increasing the number of lines, in H.D. TV, increases not only the height of the picture, but its scan width, proportionally.... given the required added video bandwidth, the number of PEL's increases as the **square** of the number of lines.... i.e., there's more **square area** of resolvable picture, hence more Picture elements.

‡Video Bandwidth- The range of frequencies required to transmit picture information. Less than six Megahertz for U.S. color TV standards, basic "information theory" tells us that increase of any one parameter, such as number of lines, frame repetition rate, color information, or combinations of these, require more frequency space in which to effect transmission over a carrier. Today's basic FCC channel spacings were established to give sufficient bandwidth, including guard space, for early B/W TV. Compressing Color information into that same bandwidth was a major achievement in the late fifties; digital compression techniques are even more effective, and will allow the essential information in a much broader band High Definition signal to be transmitted in the same archaic bandwidth.

‡ Digital Compression- A technique that encodes only the essential, non-redundant picture information into a digital pulse train, then reconstructs the full information at the other end of the transmission channel. For example, in scanning a particular line, perhaps fifty picture elements in a given frame will have the same color and intensity information. Conventional scanning transmits each of these repetitive elements in that portion of the picture, one after another. Digital compression transmits only the first intensity/color information, plus the information that a certain number of identical PEL's immediately follow, saving vital bandwidth. This technique has been used for years in voice and video communications in space and military applications. Lower integrated circuit costs make it practical for H.D. TV

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#### Letter to the Editor:

This letter is to subscribe to Lo-Power, and to thank you for the materials I've already received.

By way of introduction, I'll say that I represent a small group of investors interested in broadcasting to serve our local community. We're in the process of getting our business affairs organized while working on our application. It looks as if the information in your magazine and the support of your activities will come in very handy indeed.

I have to admit right off that we are pretty young and inexperienced — mostly just working folk with a desire to give free enterprise a shot, in the hope that we can create some wealth while providing a service, and just maybe have some fun while doing it. (And trying not to worry too much about what we may be letting ourselves in for!)

On a more serious note, however, we want to express to you our appreciation of your efforts in supporting this "movement," and also our intent to structure our application and supporting program of action along the lines suggested by your reply comments and general advice in the May and June issues. Even if we're small, and perhaps especially so, we can strive to be professional and thorough as possible.

Unfortunately, it seems there may be a couple of strikes against us (depending on the final rules, of course): first, we are setting up as a profit-making entity, and second, we are non "minority" controlled. Therefore, looking ahead, we anticipate the prospect of the class action litigation alluded to in your magazine and elsewhere. So, while this may be inappropriately early to start worrying about this sort of thing, it would still let us rest easier if we knew that we had supportive friends in the industry to help in the event our application were rejected (on the grounds above mentioned). We would enjoy reading your further views on the subject.

In any case, I look forward to corresponding with you as your schedule permits. Until then, here is fifty dollars for that first year subscription, and best of luck in all your endeavors....

Yours in Community TV,

M Everling

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## General considerations

It seems that almost everyone considering filing for a LPTV license has this big question mark floating around (in their balloon above them, like in the funny papers) wondering, "What would I put on for programming on a station if I did have a license and got on the air?"

Well, we keep telling you, stop worrying about that, that is the least of your worries. We can assure you that your problem is going to be choosing between all sorts of options. We will be explaining some of those in this publication, and will do a lot on that at the Seminar in Albuquerque on Nov. 7-8.

To put your concerns to rest, we can show you how to program relatively effortlessly 100% local, if that is what you want, to the other extreme of using satellite programming 100%, and all you do each month is write a check to the power company for a few bucks.

There are now over 50 channels of TV hitting your backyard from the satellite transponders already up there. Three years from now, there will be 300 hitting your backyard. The most a cable system can carry now without great capital expense is 35 channels, and if they really work at it, the best they could do even at great effort and expense would be 100 channels.

So, if they carry only 35, there will be tremendous pressure for the other 265 channels to find distribution to viewers. They can survive, you know, only if they get viewers. We already know that cable systems will not carry them all, so these channels coming on transponders in the next 36 months are going to be hustling to find access to viewers they will desperately need.... to find some way and someone to get their picture out to viewers. Most of the remaining 265 are going to want to distribute their picture in your town. LPTV or cable are their only two options. At least 265 are not going to make it on your local cable system, and many of these remaining 265 are going to be "bugging" (and paying) you to get their programming on your LPTV station.

If you have 10 LPTV stations in town, there will still be plenty of "programming" available. There may well be some (now forming) that could become the CBS of LPTV. If you can figure out for sure which one that is, you should rush to sign up with them before your competition does.

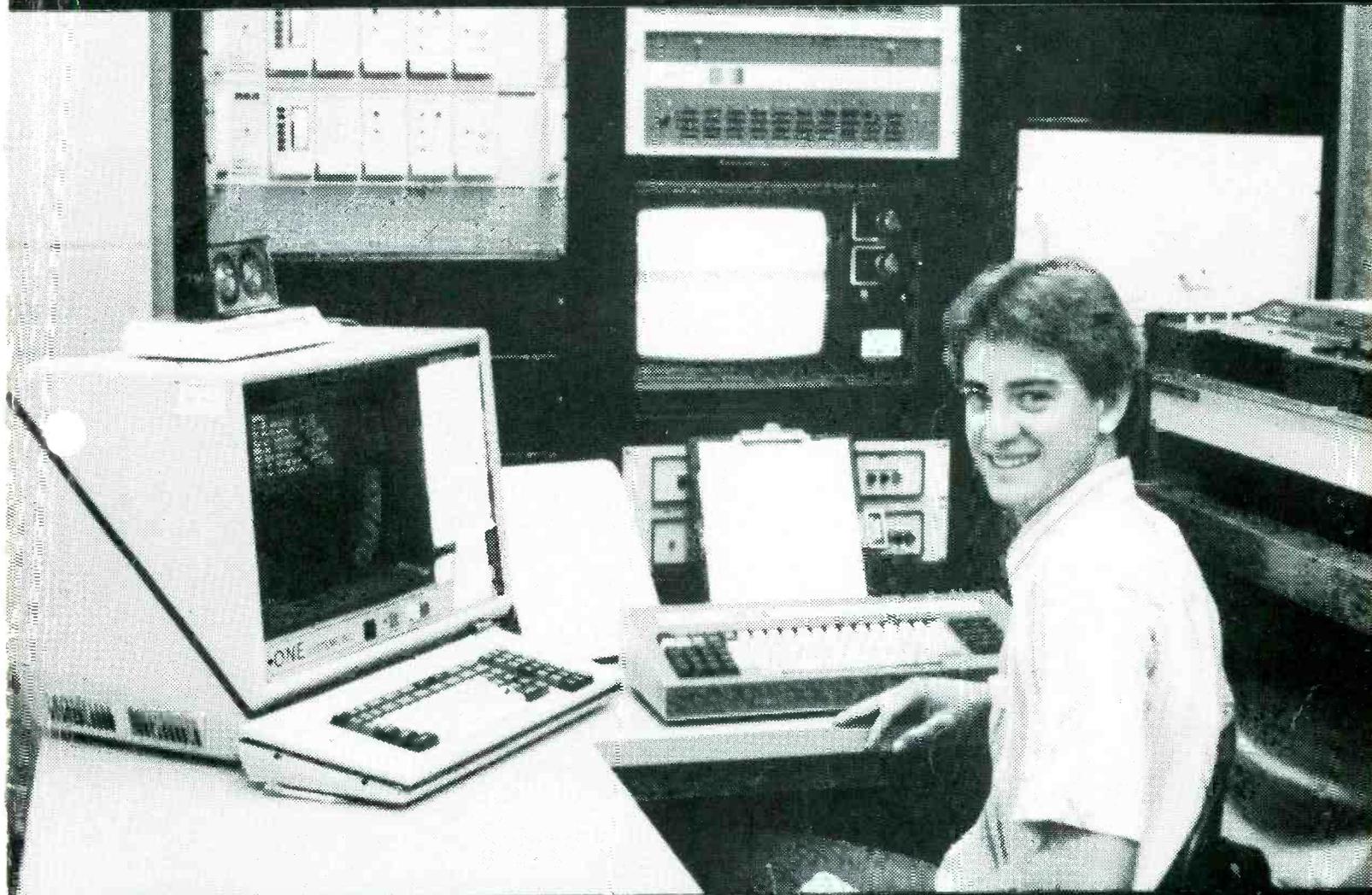
Keep in mind, however, there are going to be many "Dumont Networks" that don't make it over time, and when you finally figure out which was the "good one" you may already be tied down with the loser LPTV network.

Right now, fret about getting your license. That is 80% of your problem; other concerns are minor in comparison, and those decisions (such as programming) necessary later, will be easy to make, when it comes time to decide, because by then, scads of options will be available and obvious. Rest assured, many of them will be calling on you, hat in hand, before you ever get your station on the air.

— Harlan Jacobsen, Editor

# LO-POWER

October 1981



# COMMUNITY TV

# Downstreaming Commercials

## DEFINITION: CHARACTER GENERATOR

An electronic typewriter keyboard device that generates words on a TV screen as typed. The memory plays back crawling words either across the bottom or full-screen. Some are capable of several pages of memory.

A Utah firm has developed a character generator system that can put words on the screen of any specific translator down stream without the same words on the originating station's programming. It does not appear on any other translators than the one desired. Thus if you are broadcasting from a LPTV in Metropolis and have a translator in Smallsville rebroadcasting your Metropolis programming, you could put a tornado warning on the Smallsville screen without interfering with Metropolis' programming or translators elsewhere. You could also have character-generated commercials appear only on Smallsville screens even though they were controlled from Metropolis. Although not developed yet, the same could eventually be done with audio.

How does it work? Information for words are carried during the vertical blanking pulse, the space below the screen that you see when you roll the picture up with the vertical hold. There are something like 15 lines there and the information is carried on line 13 for one town, line 12 for another and so on. You simply put the information on whatever line the town you want is set to reproduce.

Other uses for this would be if you wanted to put commercials on in a certain hotel advertising their restaurant, Lounge show, etc. It could be worked out that you could do specific commercials just for that hotels viewers, or for several hotels.

Perhaps you wanted TV sets or a projection system in several different shopping malls and have the words running across the screen all day advertising services in each mall. You could program several malls and sell mall merchants on having their worded commercials on the screen. All would be broadcast at the same time as your regular programming. You would be able to do away totally with the regular TV picture in the malls if you liked, even though it would appear everywhere else.

These are just examples of what you can carry at the same time as your regular programming.



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## WHAT'S AVAILABLE OFF THE SATELLITES RIGHT NOW

There has been no LPTV market, so the 50 or so services on the satellites now have been charging only cable systems and MDS for their services. The sports channel listed here has discontinued charging cable systems, and instead now is paying for carrying their channel. There will soon be 300 satellite services competing. Look for most to pay you, except for the subscription movie services.

Here are some 10 present typical satellite supplied services and present charges to cable systems. Keep in mind there is a basic cable service charge of \$5 to \$7 and customers have the option of some of these additional services, at additional cost.

Programs fall under two general headings — basic and premium.

Channels offering basic programs are generally sold to the cable-TV system operator at a very low price and usually are combined into a package and sold for a lump sum to subscribers. Many of the channels have commercials.

Premium services are broken into "foundation services," such as major motion pictures and entertainment spectaculars, and "add-on services" that have lower-quality programs, channels with shorter operating hours or both.

Premium services are charged in addition to whatever other cable-TV services the customer buys, and are usually commercial-free and uncensored.

Some foundation services and their prices per customer include:

- Home Box Office — about 25 movies plus sports, concerts and specials each month. Shows about eight hours each weekday and 12 hours a day on weekends. Can be sold as cheaply as \$5 a month; the operator pays \$3.25. HBO recommends, however, that customers pay about \$10 a month, with the operator paying \$4.80.

- Showtime — about 25 movies plus plays, concerts and specials each month. Shows about 12 hours a day on weekdays and 24 hours a day on weekends. Can be sold as cheaply as \$7 a month; operator pays \$3.03. Recommended price \$9 to \$10; operator pays about \$3.70. The customer also may buy only the Front Row service, which allows viewing of only movies rated G and PG at a reduced price.

- The Movie Channel — All movies. Shows many of the same movies as the other premium channels, but also provides many slightly older films because it operates 24 hours a day every day. Can be sold as cheaply as \$6; operator pays \$3.75. Recommended price \$10.

- Premier — Similar to the other premium services, but because it is owned by four major movie companies that generally sell films to the other services, it can hold back some films for exclusive showing on Premier for nine months before releasing them to the other services. Shows about six hours a day on weekdays and 12 hours a day on weekends. If the customer pays \$8 or less, the operator pays \$3.75. Customer charges of more than \$8 are split 50-50 by the local operator and the company.

- Galavision — Major Spanish language movies, variety specials and live sports. Shows seven hours a day on weekdays and 14 hours a day on weekends. Can be sold as cheaply as \$7 a month; operator pays \$3.50. Recommended price \$11; operator pays \$5.09.

Add-on premium services are similar to foundation services in that they rely mainly on movies, are commercial-free and uncensored, and are billed separately from other cable-TV services. Add-ons however, are generally cheaper because they offer lower-quality products, shorter program hours or both. Some add-on services include:

- Home Theater Network — One G-rated movie a night, six nights a week. Operator pays \$2. Recommended customer price is \$4 or \$5 monthly.

- Private Screenings — Adult sex-oriented movies but no X-rated films. Two movies and a short on Friday and Saturday late nights only. Operator pays \$1.20. Recommended customer price: \$3.50.

- Rainbow Programming Service Escapade series of sex and action R-rated movies Tuesday through Saturday. Brava has a series of concerts, opera and a cultural magazine on Sunday and Monday. Operates 10 hours a day. Operator pays \$3. Recommended customer price: \$6 to \$11.

- Telemine — Impact Theater sex and action movies. Operator pays \$2.20. Recommended customer price. Also, Applause series of major movies, Broadway shows and specials. Operator pays \$3.75 per show. Customer pays \$5 for preselected shows at a recommended rate of \$5 a show.

- Las Vegas Entertainment Network — Live Las Vegas stage shows and sports events. Seven hours a night. Service to start in several months. No prices announced yet.

- Cinemax — A companion service created by the same company that sells Home Box Office, because the public apparently is willing to pay more for movie movies. Shows generally older or lower budget films than the main HBO service. Operates 24 hours a day. Costs the same as HBO.

- Computer games — Now being marketed in some cities. Will offer hundreds of computer games. No cost available yet, but price will probably include a monthly service fee plus the cost of a computer keyboard to operate the terminal.

# Yuma Newspaper Generates Two Channels of TV with NO Motion Camera 24 hours a Day

Some newspaper industry publications have been carrying items about newspapers leasing space from the local cable system for a local news channel and clearing \$50,000 profit or more yearly in relatively small cities.

Jeff Jacobsen journeyed to Yuma Arizona and did this interview and photos of the **Yuma Daily Sun** newspaper's programming of two local cable channels with an automated character generator system running 24 hours a day. No full motion camera is used. A flying spot scanner provides slide reproduction. One channel is all readable words of local news on the screen. The second channel is all classified ads, 24 hours a day. Our cover photo shows all the equipment used to generate their two channels of TV 24 hours a day.

.....

## YUMA INTERVIEW

Q. Could you go down what each of the four channels you offer is?

A. Yes; channel 13, which is on basic cable, is our Sun Cable News channel. That's local and state news only; some regional news if it's big, but we really try to push local news. That's redundant with channel 30 also; they're the same channel exactly. That's split down at the cable company. The next one down the line would be channel K. Channel K is our merchandise and transportation channel, and those are the paid ads. The next one is channel M. That's Real Estate and Rentals. Channel O is Associated Press, a newswire; we don't actually control it, we just set it up. It comes in on the wire, phone line. That's basically what we have for now.

Q. What's your setup with the cable system?

A. This cable company is owned by the newspaper, Western Newspapers. We just use the paper's data base, handy for local news, but we're just another department of the newspaper, actually.

Q. Is there any competition, like an MDS, in town?

A. No.

Q. There's a local TV station, though?

A. Yes, It's KYEL, a local station. It's all video. We haven't had any problems so far. The newspaper... of course they're fighting for stories a little bit, but we haven't had any problems that I know of in competition.

Q. How many subscribers does the cable system have?

A. I think it is about half the population of Yuma, which would be 20,000, but currently we're on a converter which the consumer would have to go buy one for \$40 and then own it. You



wouldn't get it with your basic cable hookup, but that's going to change in the next month or so. All the converters will be sold back to our cable company at Valley Telecasting and then with your subscription to cable TV you will get a converter. So, wherever there is a basic cable in this town, we'll have our penetration, also.

Q. Are there a lot of people in, say, a suburb type area outside of town that you can't reach through cable?

A. Right now we have foothills, a sort of growing suburb outside Yuma, but they're looking for cable in the middle part of next year, I believe. And that's really the only one I see in the near future. There are a few other smaller towns, Wellton and Tacna, but I have no idea what their plans are. They're 25 miles away, so it's not likely to happen soon.

Q. How many channels are on the cable system?

A. Actually, basic cable is 2-12, that's 10 channels, or 9 actually. HBO is included there, but we go all the way up to 35 to 40 channels.

Q. How many radio stations are in town?

A. KVOY and KJOK are two different radio stations in the same building, so I consider them really one. Their news would all come from the same place. Another is KTTI. There's also KBLU.

Q. Are you the only newspaper in town, or do you have competition there too?

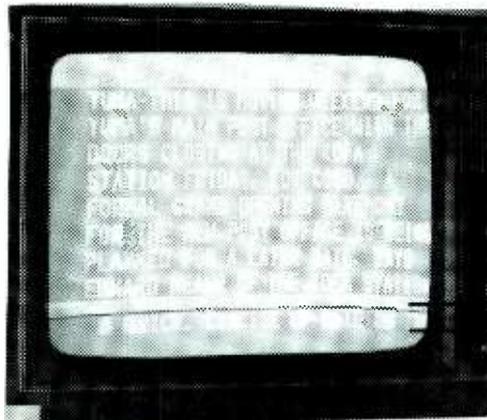
A. No, we're the only newspaper.



Pictured above is a scenery slide reproduced with a flying spot scanner with character generator words over. Bottom stripe is left to right crawling words advertising a pay movie channel. Small next stripe up is continuous time and date.

Q. Is your news channel basically a service? You don't make any income off that?

A. Oh yes, retail ads. On channel 13 and 30 we have a flying spot scanner; it shows slides of products for sale, and you can superimpose characters and colors using the character generator. We've been selling a lot of such ads lately; ads with different colors, whatever wording the advertiser wants, etc.



Colored stripe with time & date

crawling word commercial

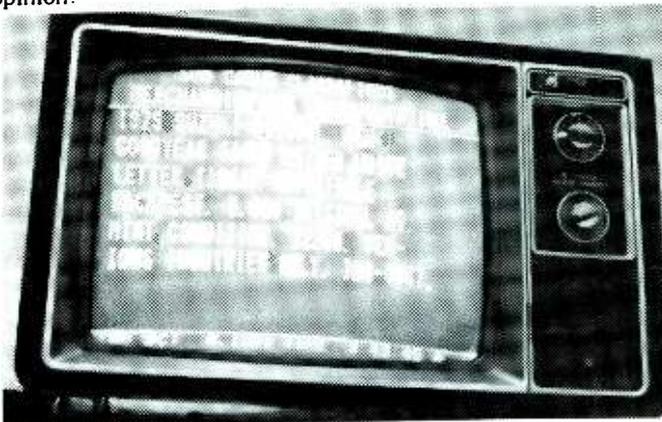
A. Well, from what I've read, it seems like a good idea. I don't really know a lot about it, just glanced at some brochures. That's going to be the way everything goes, though.... cutting out developing time. Videotape has just about made film obsolete.

Q. These four channels: do they have a good viewership?

A. We've done a survey... we're getting I believe upwards of 90% that are watching 10-15 minutes per day. I'm not sure when this survey was done.... last December. We got pretty good response, and we hadn't been on the air long. We've done a lot of channel structural changes. Up until two weeks ago, we had Reuters Financial News on the newswire service, but we've dropped that and replaced it with classifieds.

Q. If you went to another town and started a lo-power station on a small budget, what would you put on the air, from your experience here?

A. If I had one channel, I believe local news with retail ads. That sells the best because you can offer television time to the small businessman at a reasonable price, and times are tough for advertising. Reasonably priced advertising sells. That's my opinion.



Q. So you have retail ads on each channel?

A. No, only on one channel. The other two have classifieds, not retail ads. There are no ads on the Associated Press channel. We have a space along the top for a crawl that we could sell, but no full-page ads.

Q. If someone else in this size town wanted to compete, and was not associated with a newspaper, could they do it profitably?

A. Not in a town the size of Yuma. We feed off the paper's information, which is collected here. I can't see someone starting up here.... maybe in a larger city.

Q. Since putting this up, is there anything you'd do differently if you could do it again?

A. Well, not really. You know, you have to crawl before you can walk. They're already planning to bring in more stuff off satellite through our local cable company. Perhaps I'd get a rooftop dish. It hasn't stopped here, and you have to start somewhere. I think it ran pretty well. I have to give a lot of credit to the former coordinator, Tom Mars. He really put it all together before moving to the St. Louis Post-Dispatch. He works with a two-way interactive system there.

Q. Do you prefer other equipment on the market to what you have here?

A. Well, MSI is.... we haven't had too many problems with them. When we first began working with them, things were a little shaky because I believe they were going through some structural changes, combining two companies, Texscan and MSI, but that's been cleared up and we've really been happy with their service. They've been treating us well. As far as down time is concerned, we were only really down on two instances; we burned up a 5-volt power supply in early July, and were down a couple of days. That was fixed before they had to send anybody down. Actually, they sent a new power supply. I put it in, and did some board swapping to get it going again. So really, over the phone, they helped us enough. I can put in the boards. We did have spare parts for backup.

Q. Do you use any live camera on the air?

A. No, not yet. That's in the future.

Q. How does your signal get to the cable system?

A. We generate it here.... and the modulators send it by coax to Valley Telecasting Cable Company, which is a mile as the crow flies. I don't know how far in cable that is. They demodulate it, I guess boost the power and send it out to the city.

Q. How long have these channels been on the air now?

A. I think since March 1980.

Q. If you put a picture in with an ad, does that cost the advertiser more?

A. Yes. Mostly because of the actual time it takes with the picture and the cost of development. It's really not much more expense, though.

Q. How long are the spots on?

A. It's 18 seconds.

Q. Is much engineering work needed on the equipment?

A. I do the maintenance work. It's really easy. It's just a matter of vacuuming a few filters. The scanner takes a little longer, but it's real low maintenance.

Q. Do you change channel contents each day?

A. We try to change news about twice a day, depending on the news flow. Our biggest changeover is right after press time, when we put on the local news. Classifieds are updated once daily at 5 PM.

Q. Who puts information into the system?

A. Myself and two girls...they work part time.

Q. Are these channels basically being well received by Yuma's population?

A. Yes, they really are.... they're going over better than expected.

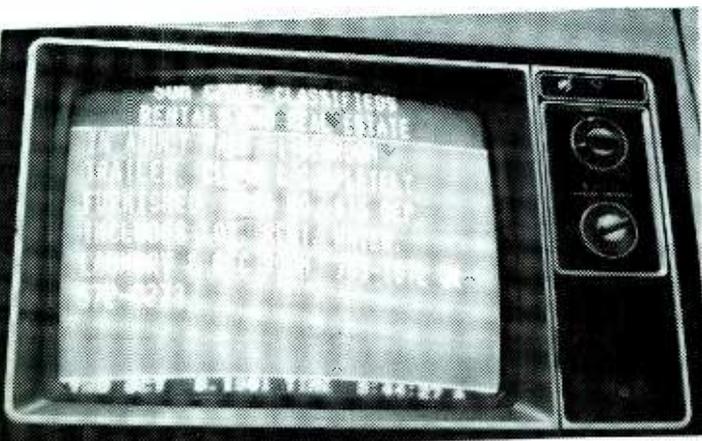
Q. Do your prices vary with time of day?

A., No. Those are for 24 hours, and there are 72 exposures, I believe, guaranteed.

Q. Are you making a good profit with these channels?

A. We're starting to, with classifieds. Up until a month ago, we had no one to sell cable ads, so all of a sudden, we have ads coming in, and we have classifieds. I really couldn't tell you financially where we stand, but we're starting. We really hadn't expected a profit for a couple of years.

.....



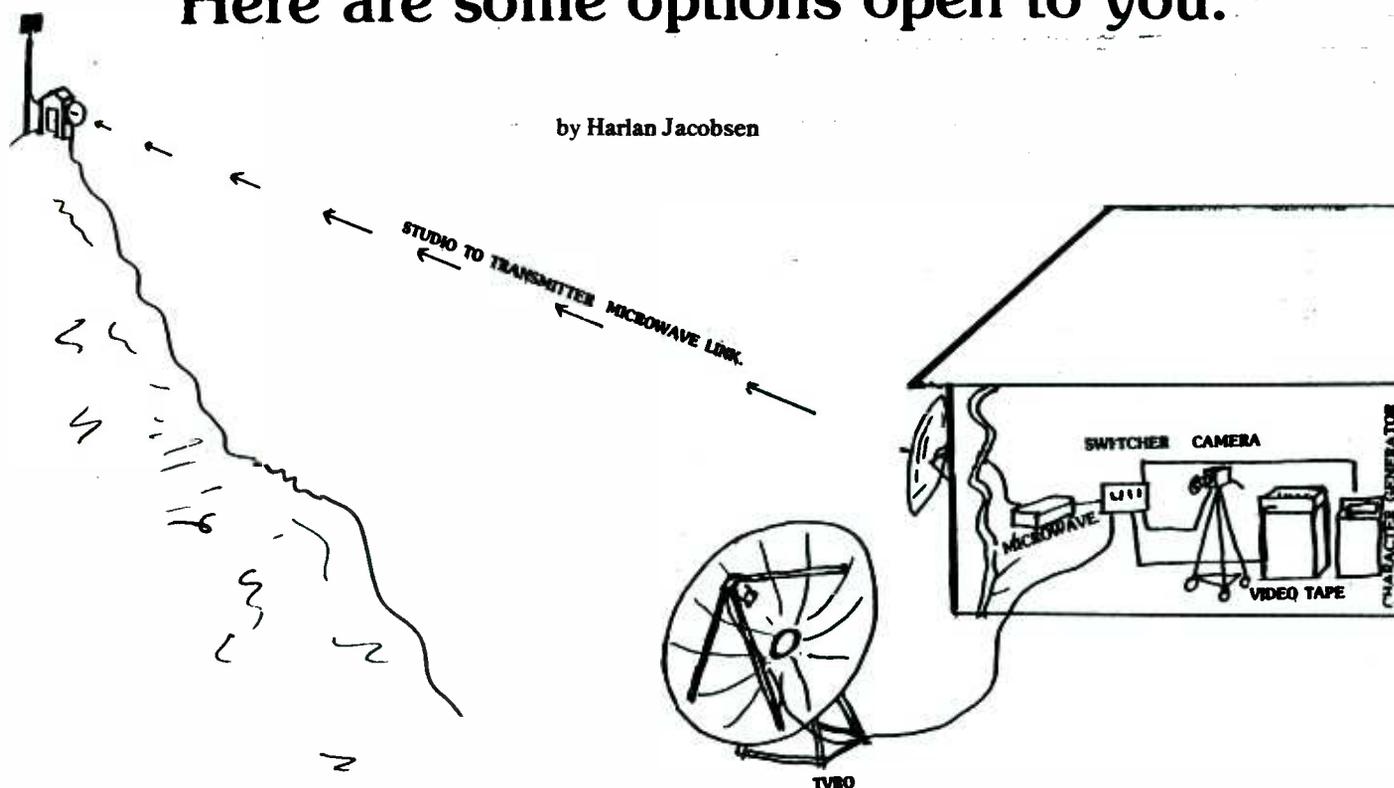
Q. There's a new Sony camera that makes video disks. Do you think that's a good idea?

# CONNECTING STUDIO OR SOURCE TO YOUR TRANSMITTER SITE...

Getting there can cost as much  
as the rest of your station

Here are some options open to you.

by Harlan Jacobsen



Many low power applicants, in making a decision as to where their control point and studio are located in relationship to where the transmitter and antenna are located, are unaware this will be a great factor in determining the cost of their station.

As a matter of fact, getting your video to your transmitter can cost as much as your entire station..... up to double the cost of the station!

## MICROWAVE STL

Let us start out with the most expensive method of getting there, namely microwave. If you are downtown with a studio that does not have a line of sight to your transmitter site, better get a different place for your studio. It would require a two-hop microwave relay to get there. This would add an additional \$10,000 to get to your antenna site.

A one-hop microwave installation (line of sight from your roof or small tower to your transmitter) will normally set you back about \$10,000 installed, though we have run into a version that may get you there for as little as \$3500.... but we will have more on that in later issues.

## Consider Several Options

Microwave is used by most traditional full service stations to get to their transmitter. This is called an STL microwave (Studio to Transmitter Link), and requires a license (easy to get) from the FCC. You can go 10 miles or even better with this if necessary, but remember, you must have line of sight. Microwave does have an occasional failure, and you will need a licensed technician on call to solve your maintenance problems. Long runs are sometimes affected by rain or snow.

Advantages: Only small degradation of picture quality, ability to go long distance with no additional cost.

Disadvantages: High cost, requires well qualified personnel on call to maintain. While it is possible to ride along control functions such as turning main transmitter on and off, switching to transmitter-located TVRO, etc, control functions add considerable cost.



### VIDEO ON COAXIAL CABLE

The simplest, least expensive way, requiring least maintenance, for up to 1/2 mile or perhaps even as much as a mile, is a simple coaxial cable and a video amplifier.

It seems possible with one good video amplifier (with built in emphasis) to go as far as 1/2 mile on coaxial cable. Built in emphasis means compensation for the greater loss of high frequencies in cable than of low frequencies. A second video amplifier, located at the 1/2 mile point, would enable you to go a total of 1 mile.

Coaxial cable is not self-supporting. It must be lashed to a steel cable supporting cable weight, or it must be buried. Some manufacturers formerly made (and it is assumed some still do) a coaxial cable with built in steel cable. An end view looks like a figure eight; they are combined in a single polyethylene jacket. This is more expensive, but easier to install, since most people do not have a "lasher" machine available.

The steel cable portion is fastened to supporting poles with a clamp, and the coaxial cable rides along underneath. Cable and necessary Video Amplifier together should run you from \$1,000 to \$1,500 for half a mile. You may get by with no video amplifier if you are only going a few hundred feet and use the right cable.

If you want control functions, you could multiplex it, but it would probably be cheaper to just run along, suspended with the coax, some small twisted-pair communication wires, which would include your audio.

Notice that the transmitter, generating the composite RF signal actually transmitted, is at the antenna site. The huge losses in strength in Coax at VHF, and even more at UHF, would eat up all your already low power, if you were to try to transmit the actual TV RF signal through a long cable. Color Video bandwidth is less than 6 Megahertz, down to a few hundred cycles, and fares much better than the 50 to 900 Megahertz, depending on channel, of the actual RF. You may also have to run power wires to an antenna-site located transmitter, but the minimum distance between your transmitter and the antenna is vital.

Burying cables in non-rocky areas is perhaps the best way to go, since your cable is less affected by heat and cold. Levels reaching your transmitter are affected on long runs by temperature efficiency of the cable improving as it gets cold and falling off when it gets hot. This is such a small percentage on short runs under a half mile, it is of little consequence, but on long runs, the difference between 110° F and 40° below does have an effect. Underground, then, is recommended for minimum temperature variation.

One ingenious installer buries hose comparable to that used on home vacuum cleaners. To later install his first wires, he attaches string or thread to a ping-pong ball, and sucks it through from the other end with a vacuum cleaner. The string is then used to pull through a steel cable, which in turn pulls through one or more heavy coaxial cables and bundles of twisted pairs. Leaving a spare pull-through cable permits later addition of more coax, power or control wires with minimal effort.

If you wish to string your cable to your transmitter on somebody else's poles, they may charge you around \$6 per year per pole to do so. Utilities may take 3 to six months to make up their minds to do so, so make your request early.

You may consider video runs longer than a half mile, but need to add a video amplifier every 2000 feet or so; "tilt loss" becomes more pronounced on highs.

Advantages: Less expensive than microwave, less outages, can be worked by non-licensed technician. No license required, no red tape or delays.

Disadvantages: Still expensive for long runs of several miles; very long distance impractical. Requires permission to cross property, permission or agreement to set up your own or use others' supporting poles which require rental payments.

### LASER FIBER OPTICS

We are writing this prematurely, but will mention it now nevertheless. We plan to attend the laser show in L.A. in middle November and will have an accurate report for you on costs of this method after that show. How does it work? Your video is changed into varying intensity (modulated) laser light, which goes through a tiny strand of fiberglass, which you have to string or bury like the coaxial cable in the previously mentioned option. The difference is that you can go long distances with no boosters along the way, and the fiber cable looks like it will be much cheaper than coaxial cable. At your transmitter, the varying light from the fiber is converted back to video. Audio is carried the same way, on the same fiber. The expense of adding control functions is not known, but is primarily in the conversion electronics..... the fiber optics can handle virtually any added signals you want. You can, of course, run the control signals on conventional twisted pair wires along with the fiber.



You may want to consider this option in doing remote lines, from City Hall, the High School, etc. The through-the air laser option which is discussed below, is even more attractive for such applications.

Advantages: Laser fiber-optics, long runs under 8 miles probably less expensive than microwave. No license needed. Not affected by weather. Huge bandwidth (the "carrier frequency is that of light), so bandwidth is not a problem. Telephone companies are beginning to use fiber optics to replace the multi-wire cables under city streets; a single strand can carry tens of thousands of separate phone conversations; the cost in doing this, of course, is the transmitting and receiving electronics used to combine and separate those conversations. Fiber optics are the only practical way for the telephone system to implement "video telephone" service, which LPTV operators may find eventually to be an inexpensive leased-line way to feed their remote transmitters.

Disadvantages: Permission needed to cross property, city streets, etc., leased space on poles, etc.

Probable one-mile cost, including modulator and demodulator, fiber optics and construction, \$3,000. Two miles perhaps \$5,000.

### MODULATED LASER THROUGH THE AIR

This one is new and has great possibilities and one serious disadvantage. Again, we are writing this before attending the Laser show. Concrete details are expected for the Dec. issue.

First, the Disadvantage: Laser light is easily disturbed by heavy falling rain or snow on long runs. If you live in a relatively dry climate (such as Phoenix) this would be of little consequence.

How it Works: You put a Laser on top of your building, pointed toward your transmitter site. (You must have line of sight.) You use a video modulator that puts your video signal on the pencil-size light beam, spotted to hit a receiving device at your transmitter site, that changes this back to video. You can use a second beam for audio, electronically multiplex a single beam, or use conventional wires for audio and control functions.

CBS has been using these direct modulated devices at race tracks to get video to where they want it without wires or microwave.

We do not have prices on this yet, but the both-ends price will be somewhere between \$1,000 and \$5,000. (Accurate details in December.)

If you are in a downtown location with your studio, you may often not be able to have your satellite earth station there, because the telephone company usually has downtown microwave towers in the same frequency bands as the satellite transponders. Therefore, your TVRO may have to be at your transmitter site.

If you use this laser device to get your local programming and commercials to your transmitter, you could arrange automatic switching to the TVRO in case the laser signal deteriorates or is cut off; thus, heavy rain, etc., only cuts off your local feed, leaving network feed to fill your programming gap. Similarly, any failure of STL or studio equipment would be backed up, so you would not go off the air.

Another advantage of this arrangement is doing remotes. After



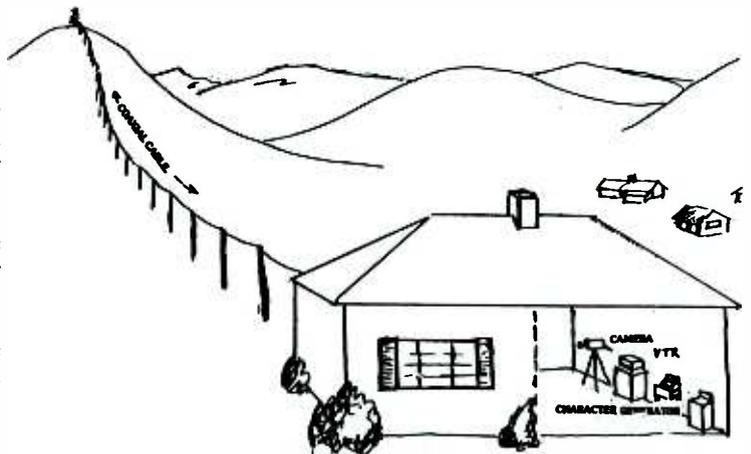
you have line of sight to your transmitter site from all around town, but can't see your studio from more than a block away. You could do remotes from anywhere in town by beaming a second laser modulator directly to your transmitter site. This might be something you may want to consider setting up regardless of what you use to get from your studio to transmitter, particularly if these Laser Relays become available under \$2,000. Remember, no license is required for these.

Potential Advantages: Light weight, transportable, inexpensive compared to microwave.

Disadvantage: Affected by rain, snow.  
More on this in December.

### LONG HAUL RF

What comes out of your camera, TVRO receiver, or from jacks on your VCR is Video. It occupies a frequency range from nearly zero to about six Megahertz. When it goes through a modulator, it is moved up to the higher radio frequency which TV sets are designed to receive..... still occupying a band of frequencies about 6 Megahertz wide, but capable of being transmitted through the air via antennas. (Your TV set demodulates the RF incoming signal back down to its video and audio components. Most VCRs have built in video to RF modulators, to make their connection to conventional home TV receiver antenna terminals easier.



As previously noted, even low frequency video is degraded in long cable runs, and RF is practical for such runs.

But VHF or UHF "RF" containing the composite, modulated video and audio, is not significantly degraded when transmitted antenna-to-antenna. (If you want to use cable for such modulated RF transmission, we suggest you use Channel 2, which is low enough to avoid as much cable loss.)

While antenna-to-antenna linking is subject to FCC licensing, transmitting RF through a cable is not, and you can use the same basic equipment and techniques used by CATV operators for a cable RF link.

In this cable-RF option, we change video and audio to RF with a modulator (\$100 up), use CATV technology to get it there (strung or buried cable), and at the transmitter end demodulate using essentially a TV set with no picture tube, to retrieve the separate video and audio required by most transmitter inputs. (Demodulator estimated \$150.)

There is practically no limit to distance, using CATV line amplifiers; it is cheaper than conventional CATV if you only use the low-loss of Channel 2, going as much as a mile with no amplification on coaxial cable.

Two or three LPTV stations using cooperative studio facilities could all go to a common transmitter site on one cable, using channels, 2,3,4, etc. at little extra cost. If the cable route passes a remote site, such as the High School, you can use it to feed backwards to your studio at the same time.

You may be able to get your local CATV operator to do your installation for you, or lease lines from him with this method.

For those of you in a mountain valley, needing to go a winding route to a mountaintop, say 4 or 5 miles away and have poles or a cut timber swath that you can go up on: you can carry RF on one single #8 or smaller copperclad wire, reamplifying with only one 40 dB cable system amplifier at the halfway point (2½ mile point). This should cost you under \$500 per mile.

This seems to be an unheard of or lost technology of carrying TV on a single wire. I built 5 miles of it in 1957 and used it for 9 years, successfully off of a mountain. It is relatively unaffected by weather or heat and all TV channels are relatively flat on it. Loss is about 18 dB per mile. The principal was developed by Dr. Gobou at MIT for use at UHF about 1955, and I simply enlarged it and used it on VHF. Several other cable systems copied it and used it elsewhere very successfully around the country. If any subscribers are interested in this, let me know and I'll show you how it is done (simplicity) Do not let anyone tell you Television cannot be transported cheaply on a single wire, because it can. (We developed it because we didn't have money for 5 miles of Coax at the time and it turned out to be far better (and 90% cheaper for cross-country use than Coaxial Cable.

**Advantages: Coax RF**— Easily available equipment. No restriction on length. Can go through town, hence usable for remotes. Shielded, no radiation or pickup of other signals. Overall signal degradation is loss of signal strength at RF, but relatively flat, unlike unequal degradation of upper and lower video frequencies; such degradation more easily restored by simple amplification than video frequency degradation.

**Single Wire RF**— Low cost (under \$1000 a mile). Can carry on leased poles or timber swath. Unlimited number of carriers, 2 miles or more between 110 power sources. No license required for either method (but see disadvantages).

**Disadvantages: RF Coax**— relatively high cost for longer runs, some deterioration in modulating and demodulating process. Permission needed use poles, etc.

**RF Single Wire Disadvantages:** Harder to construct in populated areas, can interfere with close-by home antennas if you select the wrong channel. Most serious problem is radiation of signal which in populated areas likely to incur FCC wrath, and reception by your multi-mile long "antenna" of incoming distant signals, ignition noise, interference, etc. That 18 dB per mile loss is going somewhere: that is coupling from your single wire to the rest of the world! There is some deterioration in modulating and demodulating process, and the same need to lease poles or get permission to cross property. Single wire RF should be considered primarily useful in really remote, sparsely populated areas.



**SATELLITE RECEIVER AT TRANSMITTER**

**Character generator and/or slow-scan by telephone line** — or rides in on vertical blanking interval on Satellite Receiver.

If your network is supplying TV to a satellite uplink in Chicago where it comes back down to you on your Satellite Receiver, you only need your Satellite Receiver at the transmitter..... assuming that you don't want local origination other than stills, characters (words on screen) or voice. In other words, you could do local announcements, on-screen words and inserted voice, and could show still local pictures and commercials but no full motion.

All this extra local information can be carried in the network's vertical blanking interval for you as a service and it would appear only on your transmitter output and no others'.

It is technically feasible for a network to program local commercials for as many as 1,000 low power stations at the same time.

Slides or **Mavica** type **Mav-Slides** and audio commercials would be sent to the network. You would need no studio, no interconnection to your transmitter. You would call the network to insert a local news flash only on your station.

Next step up from this would be to add a local character generator (typing keyboard) to put visual words over the incoming network picture, crawling across the bottom, or in full pages. You would also do voice interrupt or replacement of the

network audio and do both of these connected to your transmitter only by a telephone line. The network can send still full fidelity pictures for you along with audio commercials only preproduced for your station, during the blanking interval.

A signal is sent turning on your special converter, that says what is coming next is for you. The device then picks up enough information during the blanking interval to construct words and pictures (stills), remembers this, and reproduces it on key, when told to do so, replacing the network's picture during that keyed period. You or one employee could concentrate on selling commercials and not be tied down on day to day details of scheduling and getting them on.

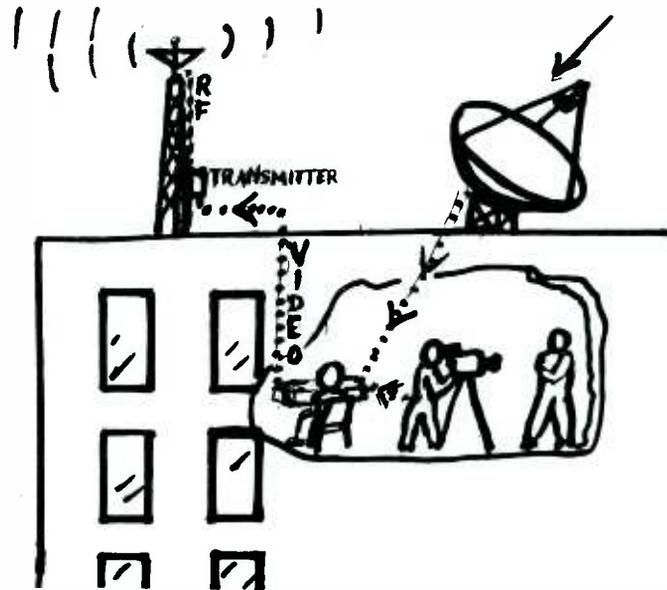
The local character generator could be used to put on special announcements, such as "all schools closed tomorrow because of blizzard conditions", "The fire is at Norm's Auto Repair and Volunteers are needed," etc.

Slo-scan could be used locally to send stills over the telephone line to the transmitter, one every 20 seconds or so, also, but the coded transmitter required to do so is too expensive currently to consider..... but the receivers are reasonable.

Therefore, if the network uses slo-scan, there is only one expensive transmitter, but many inexpensive receivers.

You could also program several local stations of your own, using slo-scan and telephone lines, which we explained in detail in a previous issue.

**Advantages:** Inexpensive  
**Disadvantages:** No full motion.



**LEAST EXPENSIVE —  
PUT YOUR STUDIO IN THE SAME TALL BUILDING  
OR  
PUT YOUR STUDIO ON THE HILL AT THE BASE  
OF THE TOWER.**

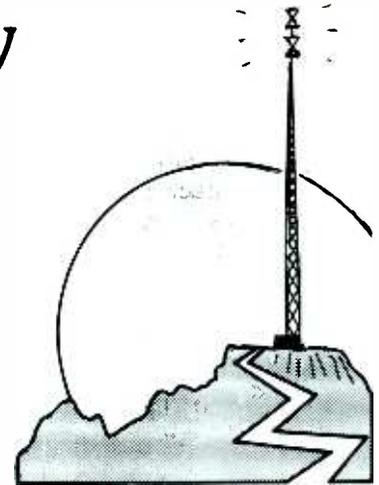
**Advantages:** Least expensive, video cable runs right to the LPTV transmitter with no video amplifier or additional electronics.

**Disadvantages:** Studio may be hard to get to and transmitter location on a tall building may be a different direction than the majority of the population have their antennas pointed. Another disadvantage is that downtown tall buildings may be near telephone company microwave towers that interfere with satellite pickup.

# LO-POWER COMMUNITY TV BROADCASTING CRASH COURSE

November 7—8, 1981  
Albuquerque, New Mexico  
SUPPLYING THE INFORMATION YOU NEED  
TO MAKE THE RIGHT DECISIONS  
ON LOW POWER.

IMPROVE YOUR ODDS



## GETTING A LOW POWER TELEVISION LICENSE

- WHAT's** happening with the FCC and LPTV?  
New rules and how they may affect you.
- WHERE** should you get ready to file?  
When the freeze thaws, you may miss out in the rush.
- WHEN**.....?  
What's going to be done to break the log jam.
- WHO** is going to get what?  
What to do to improve your odds.

## WHAT KIND OF LPTV STATION OPERATOR ARE YOU?

- Investor** — TV broadcasting sounds good.
- Video Hobbyist**—trying to expand to a business.
- Satellite Reception Installer or Hobbyist** — who wants the neighbors to be able to get good Television.
- Entrepreneur** — who sees this as a great business opportunity.
- Present Broadcaster** — wishing to expand properties.
- Cable Operator** — who wants to cover people he can't afford to wire to.
- Present Business Operator** — who sees this as a related business to expand to.

## WHAT IS GOING TO BE ON YOUR LPTV BIG PICTURE?

- Option 1. How to let the LPTV Satellite Networks do the work, you collect the rent.
- Option 2. Be a TV Broadcast Landlord, wholesaling your broadcast time; let others do all the work locally.
- Option 3. ALL Commercials, \$50 an hour—up, easy, proven method used successfully by a cable access operator. No competition, no other programming.
- Option 4. Hotel and MS apartment program supplier, underbid the cable system, even in wired towns.
- Option 5. How to make big bucks on all-religious stations. They do all the work.
- Option 6. Become the local NBC, ABC or CBS outlet in areas where they now have no Grade B station affiliated.
- Option 7. Full-time, Big-City narrow, narrow casting; Teleconferencing and specialized paid seminars.
- Option 8. Tourist LPTV stations operation; where all that income comes from with such a low overhead.
- Option 9. Local area LPTV Networks, Local Sports, etc., and how they will work.
- Option 10. Combine the best of all the other 9 in the right time slots, for maximum income.

**YOU NEED INFORMATION ON THE MANY OPTIONS OPEN  
TO LPTV BROADCASTERS TO SET YOUR DIRECTION.**

**THIS CRASH COURSE WILL PROVIDE ANSWERS.**

## THE MOST VALUABLE "REAL ESTATE IN TELEVISION

That's how some engineers characterize the black bar that shows up between pictures on your television screen when the Vertical Hold needs adjusting. The black bar, known as the "vertical blanking interval" can carry loads of textual

material that your viewers can summon up on their screen in the form of a daily informational "magazine." It represents a valuable new service to viewers and businesses, and an important new source of income for Low Power Television

## HOW TO DOUBLE YOUR INCOME USING AND SELLING YOUR VERTICAL BLANKING INTERVAL

1. Downstreaming local commercials and announcements exclusively on individual translators.
2. Deliver Electronic Mail via communicating word processors.
3. Facsimile Networks and Intelligent Copiers.
4. Voice Mail.
5. View Data, Markets, Business or Pleasure.
6. Teletext.
7. Closed Captioning.

8. Catalog Ordering.
9. Data Local Delivery.
10. Data Bank.
11. Shopping Center "traveling word" news and commercial displays.
12. Delivering selective commercials and announcements on individual hotel and apartment-house master systems, including superimposing house commercials over other channels with "traveling words."

Attending this portion of the course will lead to an understanding of why Sears and Federal Express are clamoring for over 100 LPTV stations, when they have little interest in regular programming.

**WHO OWNS YOUR BLANKING INTERVAL—  
YOU OR YOUR SUPPLYING NETWORK?  
WATCH THOSE NETWORK CONTRACTS!**

## HOW MANY LPTV STATIONS CAN YOU OPERATE?

### PERSONALLY HANDS-ON MANAGE:

You can operate a few stations in one general vicinity; crucial to get all licenses where you want them.

### ABSENTEE — HIRE MANAGEMENT

You can operate a large number of LPTV stations anywhere. File for the easy ones.

## WHERE SHOULD YOU PUT YOUR TIME AND MONEY NOW?

1. Filing more applications or getting big market applications ready.
2. Putting together studio equipment
3. Search or contract for program sources.
4. Look for buildings, etc. for station operations

## HOW TO FINANCE 15 LPTV STATIONS INSTEAD OF ONE

1. Initial Bare Bones- Low Cost Methods
2. Leasing
3. Who is interested in Financing You?
4. The License, your new valuable collateral.
5. Joint Facilities with other LPTV operators.

## OPPORTUNITIES TO START LOCAL & NATIONAL LPTV NETWORKS

### TYPES OF NETWORK OPPORTUNITIES

1. Narrowcasting— Dozens of program options
2. Narrow-Narrow-Casting
3. Business Data
4. Seminars
5. Teleconferencing
6. Programmed Sign Leasing
7. Religious networks— different faiths

### METHODS OF DISTRIBUTION

1. Low Cost Methods for Satellite Distribution
2. Direct-interconnecting your affiliate
3. Off-the-air relays
4. Bicycling Tapes
5. Slow Scan



## Covering as Many Viewers as a Full Service Station

1. Chain of stations
2. Translators: extended coverage
3. Getting distribution on Cable Systems
4. Aggressive promotion of necessary outdoor antennas.
5. Maximizing Antenna Pattern
6. Full Power for two cities from one site.

## WHO SHOULD ATTEND?

Low power applicants, would-be applicants, professionals dealing with applicants, suppliers of equipment for LPTV, program suppliers, educators, potential LPTV network executives, auxiliary businesses which can use vertical blanking intervals, teleconferencing personnel,

satellite reception entrepreneurs, translator operators considering low power and local programming, cable access programmers, newspapers considering leasing cable and LPTV channels.

## WHO IS ON THE PROGRAM?

Satellite-supplied programmers, three engineers, syndicated program experts, three experienced small market programmers and station operators, Washington FCC Licensing Expert, Washington FCC Policy Expert, and two Television Magazine staffers.

## Crash Course Video Presentations Include

### SONY MAVICA CAMERA

The Press Videotape demonstration of the new Sony Mavica electronic slide camera, that is also usable as a full motion camera will also be shown, and it's great impact on LPTV will be explored during the Saturday program.

### SETTING UP A STUDIO

Saturday evening, 2 hours will be set aside, 8 PM to 10 PM for video presentations on Setting Up a Studio.

**THIS CRASH COURSE WILL PROVIDE ANSWERS.**

# LO-POWER COMMUNITY TV BROADCASTING SEMINAR 'How To' Crash Course Nov. 7-8

## SATURDAY AGENDA

9:30 Crash Course LPTV Industry Introductions  
 10:00 Satellite Supplied LPTV Programming  
 12:00 Lunch (included)  
 1:00 Coverage and Licensing Considerations  
 1:30 Engineering-Panel- Questions & Answers  
 2:00 Syndicated Programming; LPTV Networks  
 2:30 Ten LPTV Programming Options  
 3:30 Break  
 3:45 Financing For Maximum Return  
 4:00 Your Application and the FCC

## SUNDAY AGENDA

10:00 Small Market Programming that works anywhere.  
 11:00 Narrowcasting— Don't try to "Out-General-Motors General-Motors"  
 12:00 Lunch (included)  
 1:00 The Most Valuable Real Estate in Television: Vertical Blanking Interval  
 1:30 Teleconference demonstration and LPTV Expert's panel answering Participant's questions.  
 2:00 More Money in the Side Door  
 2:30 When Do We Start Broadcasting?

\*Order of programs may be changed to accomodate speakers' schedules; pick up late schedule at the course.

### CRASH COURSE HOTEL: The Hilton Inn & Conf. Center

Albuquerque, New Mexico 87102.  
 Telephone [505] 884-2500

The hotel is located at junction of I-40 and I-25.

To make written reservations write:

Hilton Inn, PO Drawer 25525  
 Albuquerque, NM 87125

### SEE YOU IN ALBUQUERQUE!

**REGISTRATION FEE:** \$100 per person, includes two lunches and material packet.

**CANCELLATION POLICY:** Full refund of fee if written cancellation is received by November 1.

#### TAX DEDUCTION FOR EDUCATIONAL

**PURPOSES:** Treasury regulation 1.162-5 permits deduction of educational expenses— registration fees, travel, meals and lodging.

## LOW POWER COMMUNITY TELEVISION CRASH COURSE

FOR FURTHER INFORMATION OR PHONE REGISTRATION, CONTACT: (602) 945-6746

Note: Please use separate sheet for additional registrants.

I/we wish to register for the Crash Course. \$100 is enclosed for each registration.

(Make checks payable to Lo Power Community Television)

Please send me listing and prices of Video Tapes available of convention and crash course proceedings.

Please add my subscription to Lo Power Community TV Magazine. I enclose \$50.

I/we wish to obtain more information or attend a crash course planned for early '82 in New Jersey.

To: Lo Power Community Television, 7432 E. Diamond, Scottsdale, AZ 85257:

Name \_\_\_\_\_

Title \_\_\_\_\_

Organization \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Telephone \_\_\_\_\_



# NEWS

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003687

This is an unofficial announcement of Commission action. Release of the full text of a Commission order  
contains minutes of official action. See MCI-V, FCC 515 F 2d 385 (D.C. Cir. 1975).

Report No. 16608 ACTION IN DOCKET CASE September 30, 1981 - BC

## FCC SEEKS COMMENT ON RELAXATION OF RULES FOR SUBSCRIPTION TV (DOCKET 21502)

The Commission has adopted a further rulemaking notice in which it is seeking comment on proposals to relax the rules governing subscription television service (STV).

(STV, or pay TV, involves transmitting "scrambled" programs over the air to viewers who pay a fee for the service. An STV subscriber who tunes his TV receiver to the channel on which the STV station is operating will see a scrambled picture and hear garbled sound. To receive the program in proper form, the viewer activates the decoder attached to his TV set.)

The FCC said its proposals, if adopted, would reduce the degree of government restrictions on STV service thereby permitting the natural expansion of the industry to the benefit of the public -- i.e., by allowing STV service in smaller TV markets, by increasing program choices, and by opening up opportunities for smaller entities to engage in such service.

### The Major Proposals on Which the Commission is Seeking Comment:

- Whether the rule restricting STV operation to those communities within the Grade A contour of at least five commercial television stations, including that of the STV operator, should be modified or deleted (the "complement of four" rule);
- Whether the requirement that an STV station broadcast at least 28 hours of conventional (free, over-the-air) programming per week should be modified or deleted;
- Whether the FCC should allow the purchase of decoders by STV subscribers or should retain the current system of only permitting the leasing of such equipment;
- Whether the requirement that an applicant for STV authorization ascertain the needs and interests of the community specifically with regard to subscription programming should be deleted; and
- Whether STV stations should be required to comply with current TV technical standards they currently do not meet.

### Past Actions Relaxing STV Restrictions

As a result of the 1977 ruling by the U.S. Court of Appeals for the D.C. Circuit in *Home Box Office v. FCC*, in which the court concluded that the FCC had exceeded its authority over cable TV and vacated pay cable rules, the Commission deleted its restrictions against STV stations broadcasting certain feature films and sports events, the prohibition against broadcasting commercials during STV operations and the limitation that no more than 90 percent of STV programming could be sports events or movies. It held that STV and cable TV were two communications activities in direct competition and thus should be given equal treatment insofar as program availability was concerned.

Subsequently, in 1979, the Commission eliminated the rule providing that only one station in a community could engage in STV operations. It found that deletion of the "one-to-a-community" rule would not endanger the continued availability of a substantial amount of free television, but rather could hold the promise of more diversity in the mode and substance of television fare.

### Growth of STV Service

In the past four years, the FCC noted that STV has experienced remarkable growth -- from two stations in 1977 (WHHT, Newark and KBSC, Corona, Calif.) to 24 operational stations as of September 25, 1981.

The 24 operational STV stations are: KNXV, Phoenix, Ariz.; KBSC, Corona, KWHV, Los Angeles and KTSF, San Francisco, Calif.; WKID, Fort Lauderdale, Fla.; WATL, Atlanta, Ga.; WFBN, Joliet and WSNS, Chicago, Ill.; WNUV, Baltimore, Md.; WQTV, Boston and WSMW, Worcester, Mass.; WIHT, Ann Arbor and WXON, Detroit, Mich.; WHHT, Newark and WRVB, Vineland, N.J.; WBTT, Cincinnati and WCLQ, Cleveland, Ohio; KAUT, Oklahoma City and KGCT, Tulsa, Okla.; WWSG, Philadelphia, Pa.; KTWS and KNBN, Dallas and KTXA, Fort Worth, Tex.; and WCGV, Milwaukee, Wis.

Nearly half of the 24 operated as conventional stations prior to switching to a pay mode for a portion of their broadcast day. This includes KBSC, Corona, Calif., which has the largest subscriber count -- 350,000. Approximately 1,079,000 persons subscribe to STV services.

### STV Market Influence

There currently are 74 markets which meet the requirements of the "complement of four" rule. These markets include over 70 percent (53.7 million) of the total television households in the United States.

There are 217 vacant UHF and 36 vacant VHF allocations in the markets now eligible for STV. There are 14 applications approved for STV stations in eligible markets, and commencement of their operation will bring STV into a total of 25 markets with 38 stations serving a potential audience of over 33.2 million television households. As of September 1981, there were 52 applications pending for 29 communities, and if granted, the total number of STV operations would rise to 67 stations serving a potential of over half of all TV households.

### The "Complement of Four" Rule

Given current levels of TV channel utilization, the "complement of four" rule denies STV access to 139 (65 percent) of all TV markets. Even if all existing TV allocations were occupied by operating stations, STV still could not exist in 96 (43.5 percent) TV markets comprising about 13.6 percent of all television households.

The "complement of four" rule is the most significant of the restrictions to be evaluated. Its elimination would allow programming fare to be increased by expanding viewer options -- STV would bring new shows, different from current network fare, reruns or syndicated programming, as well as highly specialized programming. It would also increase STV's comparability with other pay systems such as cable and MDS (multipoint distribution service), thus giving viewers not only wider programming choice but also delivery modes and price.

Application of a staff model to all television markets if the "complement of four" rule were eliminated, indicated that in both one and two station markets conventional television would prevail; in markets with three or more operating stations there could be some loss of conventional service. However, the Commission said, this would depend on the level of cable penetration.

In determining the likelihood of a shift to STV service if the complement of four were deleted, the staff found that there were only four markets where conditions suggest a loss of service: Rochester, N.Y., Chiltonoog, Tenn., South Bend and Fort Wayne, Ind.

The Commission therefore asked for comments on its staff study (which is attached as Appendix A to the further rulemaking), as well as on industry developments that might affect the underpinnings of that study.

### The 28 hours of Conventional Programming Per Week Limitation

The Commission said this restriction also was ripe for reevaluation. It questioned whether the rule was now necessary to protect the availability of conventional programming on STV stations. It said that the mix of conventional and pay programming was better determined by the judgment of the individual entrepreneur and the demands of the marketplace.

It noted that most STV stations are far exceeding the minimum of 28 hours, and that in markets with four or more conventional television services there might be a need for requiring any conventional programming by STV stations, while a market where there is no conventional service might provide strong public policy support for a requirement that some conventional programming be required.

Therefore, as an alternative to eliminating the requirement, the FCC said it was considering modifying that rule to require conventional programming on a sliding scale according to the number of conventional stations in a market. For example, where the only station in a market is STV, it might be required to present 28 hours of non-STV programming per week. If there were one conventional station, the STV station would present at least 14 hours of non-scrambled programming. If two conventional stations were in operation, only 7 hours of such programming would be required. If three or more conventional stations are in operation, an STV licensee would have no conventional TV programming requirement.

### Decoders

The Commission noted that in adopting its rule in 1968 requiring that STV equipment be leased not sold, it had concluded that was the best way to protect the public against the obsolescence of equipment and cessation of service.

However, it said, since other pay technologies, such as cable, are offered on a lease or purchase basis, the option belonging to the system owner, why not STV? It added that STV's significant growth should obviate any concern regarding the immediate demise of this service. Furthermore, it said, a subscriber is adversely affected if the rental fee exceeds the initial purchase price, and that the sale of decoder equipment would provide working capital and would assist licensees in commencing and establishing their subscription operations.

In order to explore this subject further, the Commission asked for comment on whether there is any reason an STV operator should not have the option of deciding to sell or lease decoders; could the FCC allow the operator to have this flexibility without adversely affecting the public interest, and what benefit, any, could result from the subscriber having this option.

### Ascertainment Requirements

Now that it has had the opportunity to observe a number of STV services in operation, the Commission said it felt that ascertaining the community's STV needs could be more than adequately accomplished by the operation of the marketplace. It said it was evident that consumers subscribe only to those systems offering programs meeting their STV interests. Therefore, it clearly is in the operator's best interests to fashion station offerings to meet those needs. It said these were preliminary views on which it was inviting comment, adding that it was proposing to eliminate the STV ascertainment study.

### STV Technical Standards

Because of the failure of STV technical systems to comply with current television technical standards, no STV station has been issued an authorization but instead operate under program test authority. Since these procedures are neither administratively efficient nor certain, the FCC said it was proposing alternative solutions. Those alternatives are set out in detail in the further rulemaking, and include possible waiver of compliance with standards requiring receivers to provide a consistent quality level of visual and aural programming with a minimum of adjustment; establishing goals and timetables for compliance with all technical standards; or requiring all STV stations to meet current standards in each new market that is entered. The FCC asked for comments on these alternatives.

### Other Requirements

A number of other requirements are imposed on STV applicants, the Commission said, including submission of information detailing the method of STV operation, the programming offered, the financial structure of both the applicant and the franchise holder, as well as the type of technical equipment to be used. Dependence on resolution of various issues in this proceeding, many informational requests may no longer be necessary.

Comment dates will be announced later.

Action by the Commission September 30, 1981, by Further Notice of Proposed Rulemaking (FCC 81-449). Commissioners Fowler (Chairman), Quello, Washburn, Fogarty, Jones, Dawson and Rivera, with Chairman Fowler issuing a statement.

- FCC -

For additional information contact Freda Lippert Thyden at (202) 632-7792 or Scott Roberts or Teri Freundlich at (202) 632-6302



# Narrowvision

## NATIONAL TRANSLATOR ASSOC.

Box 11306 / Suite 2100 / 36 South State / Salt Lake City, Utah 84147

30 September 1981



Mr. Harlan Jacobson  
Low Power Community TV  
7432 E. Diamond  
Scottsdale, Arizona 85257

Mr. Jacobson:

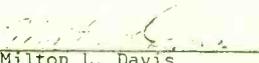
Paul Evans, Administrative Secretary/Treasurer of our organization, has informed me of your request to allow the attendees of your seminar to use the facilities of the N.T.A. convention.

It is unfortunate that you chose to schedule your seminar so close to the N.T.A. convention. It is also unfortunate that you have attempted to utilize the efforts of N.T.A. and their exhibits without sharing the cost.

We feel that we have made every effort to provide a comprehensive program for our registrants. It would be unfair and illogical to allow the participants of your seminar to usurp time and space when they have not paid an equivalent amount. We, therefore, insist that you stop informing your group that they will be allowed access to the displays of N.T.A., for this is not acceptable to us in any way.

For your information, arrangements have been made to have security people at the entrance to the exhibit area to insure that only those registered for the N.T.A. convention are admitted.

MLD:

  
Milton L. Davis  
President

cc: Paul Evans

DEDICATED TO THE IMPROVEMENT OF OVER THE AIR BROADCAST SERVICE TO  
UNITED STATES RESIDENTS THROUGH THE MAXIMUM UTILIZATION OF TV AND FM  
TRANSLATORS

October 5, 1981

Dear Mr. Davis:

Our original discussion on running our crash course back-to-back with the N.T.A. convention was several months ago. We asked you at that time for a response to your feelings about it in three days and informed you we needed to know by then because of publication deadline. We held up for five days and having never received the courtesy of what your decision or feeling about it was, we went ahead. Until this letter months later, we had absolutely no response from N.T.A. though you had promised to get back to us in the three days after "contacting" others. We had talked to two manufacturer exhibitors who both thought it was a good idea prior to contacting you.

We have several hundred people who obtain low power TV information from us, and many were interested in attending our crash course but knew nothing of the N.T.A. or any translator association or convention. We suggested they would be able to attend both with one trip this way, and we are sure you already have people who are registered for your event as a result. We publicized at our expense your event because we thought it was of help to everyone to know it existed and could be attended in the same trip.

1. You would get many more attendees and possible association members as a result of our regular readers plus our over 3,000 mailing to other LPTV interested people who are nonsubscribers and people that already were coming to our crash course.

2. Exhibitors would get additional exposure to a lot more people. They paid you for the privilege of exhibiting \$450 to \$1,330 or more per space (not a nickel to us), and we promoted more people at our expense.

3. Better deal for our crash course attendees (no more money for us) being able to attend the convention if they had time all in the same trip, or those that could only come for the weekend would still be able to visit with suppliers who were already in town. A bonus for attendees and the exhibitors.

The National Association of Broadcasters, which is much larger than your event, allows exhibitor passes to

seminars or association politics but just want to visit with suppliers all at one place.

The National Video shows are operated the same way. I have attended many cable convention exhibit areas that same way. The November 17 - 19 Laser Industry show in Anaheim also has free access to exhibitors. You are telling us that anybody that comes to a N.T.A. show has to pay you \$190 to visit with the exhibitors, exhibitors that paid you a large amount of money to show there. We are only talking about Saturday, and your convention folds at 2 p.m. on that same day.

It would seem to me you are certainly giving a lot of encouragement for other low power associations to be started or succeed.

There are a lot of rip-off artists involved in the LPTV scene already, and it seems surprising that a "so called" nonprofit organization needs to be approaching that category.

Per your letter, let me say the participants of our Saturday and Sunday crash course are not going to be usurping your time or space. We have rented our own crash course space at the Hilton. As far as utilizing your exhibitors without sharing the cost, let me remind you, your exhibitors pay you thousands of dollars to exhibit there to be exposed to prospects. Exhibitors do not cost you; they pay you. What they pay for is prospects, and we paid for at our expense getting these additional people for them.

One of the highest costs of running any convention or seminar is publicity and advertising, namely getting people there. We were paying for that high cost item all out of our pocket, and you were getting all the exhibitor's revenue. You were also getting many additional people to attend your convention and pay you \$190 each as a result of our mailings, again all at our expense. We were generating money for you, what we asked you for would not generate a nickel for us.

We think your attitude is appalling and small potatoes. We have therefore just before mailing over 3,000 pieces to LPTV people removed one full page devoted to promoting also attending your convention. We have removed all mention of your convention from our big mailing as a result of your letter. This will avoid any confusion per your letter.

We are not paid by the people that the mailing was to, to tell them anything. We are now merely letting them "know about our two day crash course".

However, subscribers to our magazine do pay us to keep them informed, so we do include information on your convention in this issue as well as the fact we have carried notice of it in past issues. We note that as far as people that are attending your convention you are not recompensating by telling them about our two day crash course on the weekend, even though it is to their interest to know about its existence. Yet you pretend our two day LPTV programming crash course does not exist.

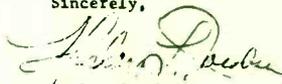
Everyone that signs up for our crash course will receive a program not only of our course but also a program of what you have to offer on Tuesday, Wednesday, Thursday, Friday and Saturday.

Regarding your letter again, we never asked to use your facilities; we only asked about arrangements for people that were only attending the Saturday and Sunday crash course to have some access to exhibitors. Many of the exhibitors will also be participating in our two day program, so the crash course attendees will perhaps have adequate chances to get together there.

There will also be other shows more appropriate for exhibitor business after the freeze is over after the first of the year.

Though we didn't personally lose anything by it, we look on receiving your "narrow vision" letter as indeed unfortunate for everyone else concerned, including lost income for the Translator Association.

Sincerely,



Harlan Jacobson  
Lo-Power Community Television

P.S. We are carrying your letter and this reply in our October issue in full so our LPTV readers and crash course attendees will know what the picture is.

# Albuquerque, New Mexico November 7-8, 1981

## CRASH COURSE NEWS— LAST MINUTE

Crash Course attendees have a problem with the NTA Convention people deciding not to allow traditional exhibitor passes in Albuquerque. So, the way things stand as this is written, those not paying \$190 to attend the 3 day NTA Convention proceedings may not, supposedly, attend and talk to the manufacturers and other suppliers exhibiting at the NTA. Most will still be in town and accessible, however, at the Crash Course portion.

This is highly unusual in this industry, that no exhibitor passes will be issued (they were in Atlanta) and we carry the correspondence on another page under the title "Narrowvision."

As you know, we originally had scheduled on short notice a July LPTV Crash Course in Denver. The FCC proceedings were moved up to where it was apparent nothing much would be happening until January, and there was no longer a rush for that information. We had inadvertently missed an important Ad Deadline and felt we would not have as many people attending as we would have liked as a result of the short lead time.

When we heard of the translator convention being scheduled in November, we discussed with some exhibitors, why not move up the date and have our program the same weekend following the NTA convention? That way, those really getting into it that had time could attend several more days by including the NTA convention all in the same trip. All the translator manufacturers would be in town, and it would just be a better program for everybody, including the NTA, which would get several of the people originally scheduled to attend Denver, that would want to attend theirs also as long as they were going to town anyway. (We know of some of these people originally signed up for our Denver course that have been registered for both the NTA and the Albuquerque Crash Course for some time now.)

We scheduled our speakers so that anyone who was on their program that was also on the Crash Course Speaker List would be on during the time period their convention was still active on Saturday, namely 9:30 AM until 2 PM. People attending both, that had already heard these speakers, would cut the AM Crash Course proceedings, and could likely attend the NTA meetings (mostly internal association politics, we understand, on Saturday.) rather than hear the same speakers again.

Therefore, the Crash Course could not interfere, it would only bring the NTA extra people signing up for their several days, possibly some new members; the exhibitors who were already paying the NTA considerable amounts for exhibition space would have had some additional prospects for their sales force.

Our main benefit was the same as the attendees; we would do both with one trip. We intended to be at the NTA Convention as an exhibitor and reporter, anyway. Second, it is one day each way less travel time to Albuquerque than transporting our equipment to Denver and with our other businesses, it is hard to squeeze out "away time." However, because of NTA's narrow attitude about it, we pulled all mention of the NTA convention from our recent large mailing.

Judging from some of our phone calls, some of the original people signed up for Denver are asking for reassurance that we won't postpone this one. Rest assured, we are going ahead with it, full steam, and everything seems to be falling into place remarkably well, except for lack of NTA cooperation.

We never needed NTA permission or blessing or any such to run a Crash Course in Albuquerque on LPTV, and we moved it there

thinking it was a better deal for everyone, including the NTA. We still think so.

You may not be aware of the fact that the National Translator Association has added to their Nov. 5-6-7 Albuquerque program a technical seminar, for technical types, on translator installation and maintenance. Cost of the Nov. 4 and 5 Technical Translator portion is \$50.00 if not registered for the rest of the program Nov 5-6-7, or \$30 if you are registered for the rest.

You can get additional on both NTA programs by contacting the National Translator Association, Suite 2100, 36 S. State St., Salt Lake City, UT 84111; Telephone (801) 237-2623.

We believe you will leave the Sat. and Sun. **Low Power Community TV** Crash Course much more aware and enthusiastic about what an opportunity you are into with low power. Most people getting into LPTV currently see only the tip of the iceberg when they look at its potential.

The course is designed to give you the information you need to get a firm footing in knowing and controlling which direction you are going with LPTV.

If you are unable to attend one or the other or both, we will give you a rundown in this magazine, next 2 or 3 issues, of the important things covered at the NTA convention as well as the Crash Course.

If you know of someone who should attend, or you would like to send a program flyer, let us know. You will find the course priced reasonably (\$100 with advance reservation, \$125 at the door.) It does include 2 meals and a big packet of materials. Considerable advertising money has already been spent and the people involved are knocking themselves out to make the program and the speakers' subjects in this program well worth your time and money.

We tried to make some sense out of Airline specials, but gave up on that one. Many have special rates for arriving on certain days — leaving on certain days, and all other types of specials. Have your travel agent figure out who has the best price for your trip. Remember, many "special" airline fares require you to book a week in advance.

As far as hotels are concerned, there will be several hundred translator people checking out Saturday. So, if you are coming in Saturday AM there should be little problem at the Hilton. Hilton rates are \$45 one person, \$55 for two. One block from the Hilton



is a very nice place called the Dollar Inn. Here is their price schedule

ROOM RATE INFORMATION		
1 Person	—Queen Bed	\$22.00
2 Persons	—Queen Bed	\$25.00
2 Persons	—2 Double Beds	\$27.00
Each additional guest	—\$4.00	
Day Rate	—1 or 2 Guests	\$16.00
SUITES: One or Two Persons		
(a) Governor's "Taj Mahal Bed"		\$39.00
(b) Executive (a) King Bed		\$32.00
	(b) Queen Bed	\$29.00
(c) Honeymoon or Anniversary		\$29.00
(d) Family room — 3 beds — 3 people		\$38.00

Phone number is (505) 884-0250. They do not have free airport pickup. The airport is about 5 miles away. You may be able to ride in on the Hilton airport pickup if you get in Saturday AM, check your bags at the Hilton, and check in later at either place, if you get in about the time things are getting underway.

# Listing of LPTV applications since the freeze

Continued from last issue

**ALABAMA**

Florence  
 3 10w Benny B. Digesu 9/15/81  
 Carle Broadcasting

Mobile  
 52 1 WKRG TV K. 4/24/81  
 Giddens

**ALASKA**

Bethel  
 2 10w State of 7/17/81  
 Alaska

Chignik Lake  
 13 10w Chignik L. Lind 7/1/81  
 Lake Village  
 Council

Kodiak  
 4 10w State of 7/17/81  
 Alaska

Northway  
 8 10w Northway L. Felix  
 Village 8/11/81  
 Council

Nuiqsut  
 9 10w State of 7/17/81  
 Alaska

Old Harbor  
 13 10w State of M. 3/27/81  
 Alaska Hoveasten

Petersburg  
 4 10w State of 7/17/81  
 Alaska

Seward  
 17 100w Visual R. 7/17/81  
 Enter. Jackson  
 Un.

**ARIZONA**

Alpine  
 2 1w Alpine H. 9/24/81  
 Comm. Van Slyke  
 TV

Douglas  
 3 100w Dennis D. Owen  
 H. Owen 7/1/81  
 3 100w Russwal M. 9/30/81  
 Corp. Riverburgh

Flagstaff  
 4 10w Majelmar H. 10/5/81  
 Inc. Cooper  
 4 10w Robert B. R.G. 7/1/81  
 Blow Blow  
 4 10w Comm. G. 10/5/81  
 Investment Hatch  
 11 10w David A. D. 9/28/81  
 Bell Bell  
 11 100w Edward M. E. 7/1/81  
 Johnson Johnson  
 51 100w Gregory G. 9/24/81  
 Petersen Petersen

Holbrook  
 12 10w Midsouth K. 7/1/81  
 Broad. Schledwitz

**CALIFORNIA**

Barstow  
 3 10w Deloy D. 9/24/81  
 Miller Miller

Bishop  
 7 100w Listeners B. 9/24/81  
 Network TV Lambert

China Lake  
 6 10w Deloy D. 9/28/81  
 Miller Miller

Chinatown  
 66 1.0kw Nora J. 9/14/81  
 Lam Sung  
 Ministries

Cloverdale  
 27 1kw Response 7/15/81  
 Broadcasting  
 34 1kw Response 7/15/81  
 Broadcasting  
 39 1kw Response 7/15/81  
 Broadcasting

Fort Bragg  
 51 100w Quentin D. 7/1/81  
 Breen Breen

Goleta  
 26 1kw Guy S. G. 7/1/81  
 Erway, Jr. Erway, Jr.

Grand Valley  
 58 20w KUTV Inc. 7/1/81

Inglewood, Torrance  
 38 1000w CBM M. 9/10/81  
 Broad. Peters

Los Angeles  
 38 1000w Life J. Lee 9/14/81  
 Broadcasting Co., Inc.

Mission Viejo  
 47 100kw K.B. La R. 6/22/81  
 Inc. Ragan

Paso Robles  
 19 1000w Response H. 9/28/81  
 Broad. Miller  
 Corp.  
 36 1000w Response H. 9/28/81  
 Broad. Miller  
 Corp.

Penn Valley  
 56 100w Comm. J. 9/15/81  
 Ent. Craven  
 Partnership

Redondo Beach  
 38 100w Amerex B. 6/22/81  
 Oil Jacobs  
 Associates, Inc.

CALIFORNIA

San Diego  
 Tekkom Inc. Carl Hilliard

Santa Ana  
 Freedom D.R. Segal Newspapers Inc.

Santa Barbara  
 38 1000w Edward E. 6/30/81  
 J. Safdie Safdie

Santa Rosa  
 34 1000w Ronald R. 6/30/81  
 J. Malik Malik

South Shore Lake Tahoe  
 18 100w Bueno K. 6/30/81  
 Comm. Sanchez  
 18 100w Bueno K. 7/20/81  
 Comm. Sanchez

S. West San Francisco  
 66 10w Overseas F. 5/21/81  
 Chinese Wu  
 Comm. Inc.

Ukiah  
 8 10w Deloy D. 9/28/81  
 Miller Miller

Viralia  
 55 1kw Western S. 3/27/81  
 B'G Ross  
 System

COLORADO

Colorado Springs  
 42 100w Western J. 3/31/81  
 Bible Stafford  
 College

Craig  
 2 20w KUTV Inc. 7/1/81  
 52 20w KUTV Inc. 7/1/81

Fort Collins  
 30 1000w Ft. L. Furry 6/30/81  
 Collins Comm.

Glenwood Springs  
 2 100w KUTV Inc. 7/1/81  
 65 100w KUTV 7/1/81

Grand Valley  
 45 20w KUTV Inc. 7/1/81

Hermosa  
 41 1000w Response H. 9/28/81  
 Broad. Miller  
 Corp.  
 45 1000w Response H. 9/28/81  
 Broad. Miller  
 Corp.  
 49 1000w Response H. 9/28/81  
 Broad. Miller  
 Corp.

Meeker  
 2 20w KUTV Inc. 7/1/81  
 46 20w KUTV Inc. 7/1/81

New Castle  
 36 20w KUTV Inc. 7/1/81  
 65 20w KUTV Inc. 7/1/81

Parachute  
 2 10w Sky L. 7/1/81  
 Window Smathers  
 TV Inc.  
 2 10w Sky L. 9/30/81  
 Window Smathers  
 TV, Inc.  
 3 10w Sky L. 7/1/81  
 Window Smathers  
 TV Inc.  
 5 10w Sky L. 7/1/81  
 Window Smathers  
 TV Inc.  
 5 10w Sky L. 9/30/81  
 Window Smathers  
 TV Inc.  
 11 10w Sky L. 7/1/81  
 Window Smathers  
 TV Inc.

Rangely  
 39 20w KUTV Inc. 7/1/81  
 61 20w KUTV 7/1/81

Rifle, Rural Garfield Cty.  
 2 20w KUTV Inc. 7/1/81  
 57 20w KUTV Inc. 7/1/81

Wheat Ridge  
 47 1kw Women C. 4/29/81  
 for Parker  
 Ideal TV

FLORIDA

Bradenton  
 49 1kw WTSP TV L. 4/24/81  
 Inc. Clamage

Clearwater  
 60 1kw WTSP TV L. 4/24/81  
 Inc. Clamage

Dunedin  
 57 1kw WTSP TV L. 4/24/81  
 Inc. Clamage

Hollywood  
 63 1000w Canal M. 6/30/81  
 Cine Bouillerce  
 Hispania Inc.

Key West  
 8 100w E. Johnson 7/1/81  
 8 100w D. Bell 9/28/81  
 13 100w R. Blow 7/1/81  
 13 100w D. Bell 9/28/81  
 34 100w Q & D Breen 9/24/81

Lakeland  
 49 1kw WTSP TV L. 4/24/81  
 Inc. Clamage

Orlando  
 15 1000w El Ojo M. 9/14/81  
 del Estrin  
 Caiman TV Co.

St. Petersburg  
 56 1kw WTSP TV L. 4/24/81  
 Inc. Clamage

Tallahassee  
 2+ 10 Wm Monroe 4/22/81

**LOW POWER APPLICATIONS TO DATE OF MAILING: \$15.00.**  
 (All 48 states) Updated monthly in this magazine. To order all  
 previous LPTV application listings, send \$15.00 and ask for "UP  
 TO" booklet. Low Power Community Television Publishing,  
 7432 E. Diamond, Scottsdale, AZ 85257.

■ PHOTOCOPY SERVICE- Complete copy of a specified competitive application as filed with the FCC in Washington- \$20.00 each.

FLORIDA			Burley			Portland		
Tampa			53 100w KUTV Inc.	G. Hatch	9/28/81	11 10w	Deloy Miller	10/5/81
48 1kw WTSP TV Inc.	L. Clamage	4/24/81	Moscow			Wabash		
56 100w Tampa Acorn TV for Action	J. Masterson	7/24/81	9 10w	C. Bozman	7/1/81	3 10w	Dennis H. Owen	7/1/81
Tarpon Springs			Twin Falls			IOWA		
49 1kw WTSP TV Inc.	L. Clamage	4/24/81	4 10w	D. Bell	9/28/81	Mason City		
Vero Beach			4 10w	R.G. Blow	7/1/81	67 1000w Midwest Radio-TV Inc.	J. Rupp	6/30/81
4 10w	E. Johnson	7/1/81	4 10w	R. Vail	10/5/81	Ottumwa		
4 10w	D. Bell	9/24/81	5 10w	King G. Willoughby, Jr.	10/5/81	15 100w	Dennis H. Owen	7/1/81
10 10w	R. Blow	7/1/81	5 10w	Tekkom C. Hilliard	10/5/81	KANSAS		
10 10w	D. Bell	9/28/81	5 10w	E. Johnson	7/1/81	Chanute		
13 10w	D. Miller	9/24/81	5 10w	Majelmar H. Cooper	10/5/81	3 10w	Deloy Miller	9/28/81
53 1kw Aquarius Releasing Inc.	T. Levene	9/24/81	49 1kw	B. Petersen	9/24/81	8 10w	Dennis H. Owen	7/1/81
GEORGIA			ILLINOIS			Emporia		
Atlanta			Lisle			6 10w	Bluestem Broad. Co.	E. McKernan III 9/24/81
57 100w Sur Este Broad. Corp.	G. Neubert	9/4/81	54 100w Roman Catholic Diocese of Joliet	Fr. Irwin	7/17/81	Seneca		
64 100w Sur Este Broad. Corp.	G. Neubert	9/4/81	Pontiac			8 10w	Deloy Miller	9/24/81
Columbus			10 10w	Livingston L. Nelson	9/28/81	KENTUCKY		
6+ 10w	Wm. Monroe	4/21/81	Rockford			Murray		
Fitzgerald			68 .1	Winnebago TV Corp.	E. Balaban 4/24/81	38 1000w WML TV Co.	S. Parker	9/28/81
35 100w Pryon Comm. Inc.	G. Pryor	9/24/81	Springfield			Somerset		
Waycross			33 1kw	WICS TV Inc.	M. Friedland 4/10/81	9 10w	David Crabtree	9/30/81
2 10w	D. Owen	7/1/81	Streator			LOUISIANA		
2 10w	D. Bell	9/24/81	10 10w	Midsouth Broadcasters	7/1/81	Franklin		
HAWAII			West Chicago			13 100w	C. Chatelain	5/26/81
Honolulu			18 100w	Comm. Service TV Co.	F. Dominquez 7/20/81	15 100w	C. Chatelain	5/26/81
48 1kw Western Telest. Inc.	C. Harper Jr.	4/23/81	INDIANA			Jennings		
IDAHO						13 100w	C. Chatelain	5/26/81
						15 100w	C. Chatelain	5/26/81

■ UP-TO-DATE MANUAL AND PACKET ON LOW-POWER TV - \$25.00.

Monroe  
 27 100w Ouachita TV Inc. R. 5/14/81 Roberts  
 MAINE  
 Augusta  
 3 10w BBI/ W. 7/7/81 New England Poorver  
 Calais  
 6 10w Midsouth Broad. K. 7/1/81 Schledwitz  
 E. Millinocket  
 11 10w TV Broad. of Calvary W. 9/28/81 Hickam  
 Houlton  
 25 100w Midsouth Broad. K. 7/1/81 Schledwitz  
 Millinocket  
 11 10w Dennis H. Owen 7/1/81  
 MARYLAND  
 Bethany  
 10 10w Green Hills LPTV Inc. W. 9/28/81 Lenhard  
 Bloomfield  
 34 1000w Country Broad. Co. R. 7/1/81 Miller  
 Brookside Community  
 68 100w Royal Vision Association L. 6/29/81 Murov  
 Kirksville  
 40 1000w KTVO Inc. E. 7/1/81 Reed  
 MASSACHUSETTS  
 Worcester  
 48 1000w TV 48 Inc. E. 6/29/81 Mattar III  
 MICHIGAN

Alpena  
 13 10w Dennis H. Owen 7/1/81  
 Bay City  
 61+ 1000w Vista Com. B. 7/6/81 Mayfa  
 Detroit  
 14 100w Wm Tyndale College W. 4/22/81 Johnston  
 Hancock  
 7 10w Deloy Miller 9/28/81  
 Kalamzoo  
 52 1kw Wood B'G Inc. M. 4/10/81 Lareau  
 Lansing  
 69 1kw Wood B'G Inc. M. 4/21/81 Lareau  
 MINNESOTA  
 Little Falls  
 16 100w Garnett Co., Inc 7/1/81  
 Minneapolis/St. Paul  
 51 1000w Twin Cities Public TV Inc. W. 6/29/81 Kobin  
 MISSISSIPPI  
 Clarksdale  
 4 10w Delta Press Publ. Co., Inc. J. 9/15/81 Ellis  
 8 10w Midsouth Broadcasters 7/1/81  
 Cleveland  
 4 10w Radio Cleveland Inc. G. 9/15/81 Shurden  
 Greenville  
 5 10w Freedom Newspapers Inc. D. 9/28/81 Segal

Indianola  
 4 10w Deloy Miller 9/24/81  
 Jackson  
 67 1000w Kinetications 6/29/81  
 Tupelo  
 56 1000w Entertainment Dev. Co. 5/14/81 D. Magee  
 MISSOURI  
 Bethany  
 10 10w Green Hills LPTV Inc. W. 9/15/81 Lenhart  
 Milan  
 5 10w Green Hills LPTV Inc. W. 9/15/81 Lenhart  
 Rolla  
 7 10w Midsouth Broadcasters 7/1/81  
 7 10 10w Sowers News-papers, Inc. T. 9/8/81 Sowers  
 St. Louis  
 7 10w David Crabtree 6/29/81  
 MONTANA  
 Kalispell  
 2 10w Dennis H. Owen 7/1/81  
 2 10w Comm. Invest. G. Hatch 10/5/81  
 6 10w Star Publishing Co., Inc. W. 10/5/81 Sniffin  
 Mile City  
 8 100w Debra M. Kamp 7/1/81  
 8 10w Copper Bcg. Co., Inc. G. 10/5/81 Hatch  
 NEW JERSEY  
 Ocean  
 22+ 1000w Press Broad. Co. E. 6/29/81 Lass  
 49 1000w Press Broad. Co. E. 6/29/81 Lass

You may order our research personnel to make photocopies of all pages of a specific application filed. The charge is \$20.00 per filing. Order all of this through our Scottsdale office. Your order will receive prompt attention.

NEW MEXICO

Alamogordo

3 10w Alamogordo B. 10/5/81  
Dail News Holder  
Inc.  
12 10w Deloy Miller 9/24/81

Brainerd

2 10w Dennis H. Owen 7/1/81

Farmington

2 10w Majelmar H. 10/5/81  
Inc. Cooper  
2 10w David A. Bell 9/28/81  
7 10w Robert G. Blow 7/1/81  
7 10w David A. Bell 9/28/81  
43 lk Debra M. Kamp 9/24/81

Gallup

5 10w Dennis H. Owen 7/1/81

Silver City

2 10w Deloy Miller 9/25/81

NEW YORK

Syracuse

49 100w WIXT TV L. 4/10/81  
Inc. Israel

White Plains

2 100w West. J. 4/29/81  
Video Inc. Grieco  
29 100w Anerex B. 7/20/81  
Oil Jacobs  
Associates Inc.

NORTH DAKOTA

Devils Lake

12 100w Quentin Breen 7/1/81

Dickenson

11 100w Debra M. Kamp 7/1/81

OHIO

Jackson

5 10w Lewis E. Davis 9/30/81

Lancaster

8 10w Chester Frear 9/15/81

Lima

3 10w Freedom D. 10/5/81  
Newspapers Segal  
Inc.

68 100w Gaylord J. 7/17/81  
Broad. Co. Moffitt

Toledo

60 100w Wood M. 4/21/81  
B'G Inc. Lareau

Willoughby

46 100w Satellite R. 9/9/81  
Syn. Smith  
Systems  
Inc.

OKLAHOMA

Altus

2 10w Deloy Miller 9/24/81

Ardmore

55 100w Parrish R. 9/15/81  
TV Sys. Inc. Parrish

Blackwell

7 10w Midsouth 7/1/81  
Broadcasters  
9 100w Debra M. Kamp 9/24/81

Burns

9 100w Theresa Miller 7/1/81  
Kurt Petersen

Clinton

2 10w Midsouth 7/1/81  
Broadcasters

Durant

6 10w Midsouth 7/1/81  
Broadcasters

Elk City

2 10w Elk City J. 9/28/81  
Comm. Phillips

Muskogee

51 100w TAP T. 7/1/81  
Comm. Inc. Parrish

Ponca City

18 1000w Pioneer D. 9/30/81  
Broad. Hall

Thomasville

6 10w Midsouth 7/1/81  
Broadcasters

Tulsa

32 1000w Amer. P. 7/20/81  
Tele- Parks  
Link Sys.

Woodward

7 10w Deloy Miller 9/24/81  
69 100w OKTV Trans. D. 9/9/81  
Sys. Inc. Maupin

OREGON

Baker

37 100w Gregory 7/1/81  
Petersen

Bend

11 10w Dennis H. Owen 7/1/81  
11 10w KBND Inc. D. 9/24/81  
Kahle

33 100w B. Petersen 7/1/81

La Grande

5 100w Deloy Miller 10/5/81

Myrtle Creek

34 100w Cascade 7/1/81  
Pacific Television

Portland

65 1000w La Perla S. 9/10/81  
del Segal  
Norte TV Co.

Roseburg

31 100w Cascade R. 7/1/81  
Pacific Larson  
Television

The Dalles

4 10w Dennis H. Owen 7/1/81

PENNSYLVANIA

Allentown

60 100w Whit Inc. V. 3/26/81  
Whitaker

Coudersport

11 10w Midsouth 7/1/81  
Broadcasters

Garden View  
 5 10w Deloy Miller 10/5/81  
 Kane  
 5 10w Dennis H. Owen 7/1/81  
 Oil City  
 5 10w Deloy Miller 9/28/81  
 Philadelphia  
 42 1kw WWSH Inc. W. 4/29/81  
 Schwartz  
 Pittsburgh  
 34 .1kw WIIC W. 4/29/81  
 TV Corp. Schwartz  
 Ridgway  
 9 10w Midsouth K. 7/1/81  
 Broad. Schledwitz  
 St. Marys  
 30 100w Dennis H. Owen 7/1/81  
 Uniontown  
 42 1000w Uniontown R. 7/1/81  
 Broad. Larkin  
 Corp.  
 SOUTH CAROLINA  
 Charleston  
 58 1000w Frontier S. 7/20/81  
 Gulf Goldman  
 Broadcasting  
 Florence  
 21 1.0kw Florence B. 7/21/81  
 Christian Sanders  
 TV  
 TENNESSEE  
 Athens  
 7 10w David Crabtree 7/20/81  
 Chattanooga  
 21 1000w NSN Inc. O. 7/24/81  
 Nichols  
 Cleveland  
 47 100w TV B. 7/20/81  
 Local Inc. Morris

Jackson  
 32 1000w Jackson D. 7/20/81  
 Local Kent  
 Television  
 Rogersville  
 9 10w Beal C. 7/20/81  
 Broad. Beal  
 Co.  
 Springfield  
 10 10w Great W. 7/20/81  
 Souther Barry  
 Broadcasting  
 TEXAS  
 Austin  
 11 10w Allandale F. 5/26/81  
 Dailey  
 Brownwood  
 60 10w Munsch- 9/28/81  
 Westenhaver Co.  
 Bryan  
 5 10w Del P. 10/5/81  
 Rio Prod. Davis  
 Inc.  
 5 10w Drew & J. 10/5/81  
 Drew  
 Lawyers  
 Bryan  
 5 10w Kemmerly S. 10/5/81  
 & Kemmerly  
 Kemmerly  
 12 10w Edward Johnson 7/1/81  
 12 10w Harte C. 9/24/81  
 Hanks Everill  
 LPTV Inc.  
 12 10w TV Broad. 1st 9/28/81  
 Assem. of God  
 12 10w Drew & J. 10/5/81  
 Drew  
 Lawyers  
 12 10w Kemmerly & S. 10/5/81  
 Kemmerly Kemmerly  
 12 100w Tel Radio D. 10/5/81  
 Comm. Porter  
 Prop. Inc.  
 47 1000w Presidio C. 9/15/81  
 Ent. Chick  
 Inc.  
 60 10w Munsch- 9/28/81  
 Westenhaver Co.  
 Carrizo Springs

60 10w Munsch- 9/28/81  
 Westenhaver Co.  
 Crockett  
 60 10w Munsch- 9/28/81  
 Westenhaver Co.  
 Dallas  
 45 100w Garcia M. 9/11/81  
 Broad. Pascucci  
 Corp.  
 55 100w Amerex B. 6/30/81  
 Oil Jacobs  
 Associates Inc.  
 Del Rio  
 5 10w Edward Johnson 7/1/81  
 5 10w TV Broad. of 9/28/81  
 1st Assem. of God  
 5 10w Tel Radio D. 10/5/81  
 Comm. Porter  
 Prop. Inc.  
 7 10w Robert G. Blow 7/1/81  
 7 10w Del Rio Prod. 10/5/81  
 Inc. P. Davis  
 10 10w Harte Hanks C. 9/24/81  
 LPTV Inc. Everill  
 48 100w Theresa Miller 7/1/81  
 Kurt Petersen  
 60 10w Munsch- 9/28/81  
 Westenhaver Co.  
 Denison  
 9 10w Harte- 9/28/81  
 Hance LPTV Inc.  
 Eagle Pass  
 9 10w Deloy Miller 9/28/81  
 55 100w Theresa Miller 7/1/81  
 Kurt Petersen  
 55 100w Tel Radio D. 10/5/81  
 Comm. Prop. Porter  
 60 10w Munsch- 9/28/81  
 Westenhaver Co.  
 Huntsville  
 5 10w Harte- 9/28/81  
 Hance LPTV Inc.  
 59 10w Munsch- 9/28/81  
 Westenhaver Co.  
 Jacksonville  
 2 10w Waller W. 9/28/81  
 Broad. Waller  
 Inc.  
 60 10w Munsch- 9/28/81  
 Westenhaver Co.

Kerrville

2 10w Deloy Miller 9/28/81  
60 10w Munsch- 9/28/81  
Westenhaver Co.

Lufkin

2 10w Robert G. Blow 7/1/81  
2 10w David A. Bell 9/28/81  
2 10w Attaway D. 10/5/81  
Broad. Attaway  
Group Inc.  
2 10w Drew & J. 10/5/81  
Drew Drew  
Lawyers  
2 10w Kemmerly & S. 10/5/81  
Kemmerly Kemmerly  
2+ 10w TV Board of 10/5/81  
1st Assembly of God  
5 10w Edward Johnson 7/1/81  
5 10w Drew & J. 10/5/81  
Drew Lawyers Drew  
5 10w Kemmerly & S. 10/5/81  
Kemmerly Kemmerly  
5 100w Tel Radio D. 10/5/81  
Comm. Porter  
Prop. Inc.  
5 100w Internat. P. 10/5/81  
Bcg. Broyles  
Network  
60 10w Munsch- 9/28/81  
Westenhaver Co.  
66 1kw Drew & J. 9/30/81  
Drew Drew  
Lawyers  
66 1kw Kemmerly & S. 9/30/81  
Kemmerly Kemmerly  
66 1kw Kemmerly & S. 10/5/81  
Kemmerly Kemmerly  
66 100w Theresa Miller 7/1/81  
Kurt Petersen  
66 1000w Drew & J. 10/5/81  
Drew Drew  
Lawyers  
67 1000w Presidio C. 9/15/81  
Ent. Inc. Chick

Nacogdoches

2 10w Edward Johnson 7/1/81  
2 100w Tel Radio D. 9/28/81  
Comm. Prop Porter  
2+ 100w Internat. P. 10/5/81  
Bcg. Broyles  
Network

New Braunfels

52 1000w William Powell 6/30/81

Palestine

Ow Munsch- 9/28/81  
Westenhaver Co.

Paris

5 10w Drew & J. 9/30/81  
Drew Drew  
Lawyers  
5 10w Kemmerly & S. 9/30/81  
Kemmerly Kemmerly  
5 10w Kemmerly & S. 10/5/81  
Kemmerly Kemmerly  
5 10w Drew & J. 10/5/81  
Drew Drew  
Lawyers  
5 100w Theresa Miller 7/1/81  
9 10w Harte C. 9/24/81  
Hanks Everill  
LPTV Inc.  
10 10w Edward Johnson 7/1/81  
10 10w Drew & J. 10/5/81  
Drew Drew  
Lawyers  
10 10w Kemmerly & S. 10/5/81  
Kemmerly Kemmerly  
13 10w Robert G. Blow 7/1/81  
13 10w Drew & J. 10/5/81  
Drew Drew  
Lawyers  
13 10w Kemmerly & S. 10/5/81  
Kemmerly Kemmerly  
60 10w Munsch- 9/28/81  
Westenhaver Co.

Pecos

60 10w Munsch- 9/28/81  
Westenhaver Co.

Rio Grande City

60 10w Munsch- 9/28/81  
Westenhaver Co.  
N. Westenhaver

Snyder

60 10w Munsch- 9/28/81  
Westenhaver Co.

Sulphur Springs

60 10w Munsch- 9/28/81  
Westenhaver Co.

University Park

35 100w Womens Day S. 4/21/81  
TV Martin

Uvalde

60 10w Munsch- 9/28/81  
Westenhaver Co.

Victoria

2 10w Hombres D. 9/24/81  
Ent. Inc. McDougal

2 10w Hombres D. 9/25/81  
Ent. Inc. McDougal  
44 1kw Wm. Powell 3/27/81

Wichita Falls

40 1kw Wichita W. 3/27/81  
Falls Jarrell  
B'G

UTAH

Aurora Rural Just Cty

2 100w KUTV, Inc. G. 5/26/81  
Hatch  
75 100w KUTV, Inc. G. 5/26/81  
Hatch

Cedar City

2 10w Dennis Owen 7/1/81  
2 10w KUTV Inc. G. 10/5/81  
Hatch  
60 100w Summit J. 7/1/81  
Comm. Inc. Hirshfield  
67 10w KUTV Inc. G. 10/5/81  
Hatch

Delta, Rural Millard Cty

2 100w KUTV Inc. J. 7/1/81  
Hatch  
64 100w KUTV Inc. J. 7/1/81  
Hatch

Myton

43 100w KUTV Inc. W. 7/1/81  
Watson

Salt Lake City

32 100w University J. 7/1/81  
of Utah Brophy

St. George

27 100w Summit J. 7/1/81  
Comm. Inc. Hirshfield

VERMONT

Montpelier

44 1000w TV 44 Inc. E. 7/20/81  
Mattar III

Newport

11 10w Listeners B. 9/24/81  
Network Lambert  
TV

VIRGINIA

Bristol  
 50 1000w Roy H. W. 7/20/81  
 Park Thomas  
 Broadcasting of Tri-  
 Cities Inc.

Town Concord

33 100w Paul Passink 7/20/81

WASHINGTON

Aberdeen

3 10w Payne 7/1/81  
 Broadcasting Co.

Bellingham

24 100w Payne 7/1/81  
 Broadcasting Co.  
 58 100w TV Broad. 5/28/81  
 1st Assm. of God  
 58 100w Quentin Breen 7/1/81

Blaise

10 10w Payne 7/1/81  
 Broadcasting Co.

Bryan

5 10w Robert B. Blow 7/1/81  
 Robert G. Blow

Chehalis

3 10w Midsouth K. 7/1/81  
 Broad. Schledwitz

Chelan

2 10w Midsouth 7/1/81  
 Broadcasters

Ephrata

5 10w Payne 7/1/81  
 Broadcasting Co.

Hoquiam

3 10w Deloy Miller 9/24/81

Lynden

24 100w TV Broad. 9/28/81  
 1st Assm. of God

34 100w Midsouth 7/1/81  
 Broadcasters

Moses Lake

5 10w Peggy Rothchild 7/1/81  
 8 100w A. Petersen 7/1/81

Omak

12 10w Midsouth K. 7/1/81  
 Broadcast. Schledwitz

Patfros

15 100w OK-TV, Inc. 9/24/81  
 R. Anderson

Seattle

33 100w Highlight J. 7/20/81  
 Broad. Allen

Spokane

13 100w Graves- H. 7/28/81  
 Turnquist Graves

Wenatchee

2 10w J. Corcoran 9/24/81  
 6 10w Payne 7/1/81  
 Broadcasting Co.

WISCONSIN

Milwaukee

65 1kw WITI TV Inc. K. 4/24/81  
 Mosher  
 68 100w Citizens S. 5/21/81  
 Television Simon  
 Sys.

WYOMING

Cheyenne

11 10w Star W. 9/24/81  
 Pub. Co., Sniffin  
 Inc.

Laramie

8 10w Star W. 9/24/81  
 Publ. Co., Sniffin  
 Inc.  
 13 10w Robert B. Blow 7/1/81  
 Robert G. Blow  
 13 10w Comm. G. 10/5/81  
 Investment Hatch  
 46 100w Quentin Breen 7/1/81

Rock Springs

43 100w Bernard Petersen 7/1/81



The only "one place"  
 source of information  
 available on the new  
**Low-Power Television  
 Industry.**

**Lo-Power Television  
 7432 E. Diamond  
 Scottsdale, AZ 85257.**

## HOW YOU GET THE GOVERNMENT OFF THEIR REGULATORY DUFFS:

You may remember how this country got translators. It was not the wisdom of the FCC. It was through American Ingenuity, that had the guts to do, unauthorized, what the FCC said was illegal, couldn't be done, and would cause horrible interference problems. After there were large numbers of translators working so well, and people getting good TV that didn't have any TV before..... the FCC finally had to license them.

What has happened in Canada parallels that, with Low Power TV. In town in the North Woods, an entrepreneur set up a chain of towns with low power, low cost transmitters. He taped programs in the big cities and played them back on the air in the small towns, and moved the tapes one town ahead every day. The Canadian Government tried to shut them down. Nearly one entire town got up in arms and went to the government office and camped on their doorstep until they got their TV back. So, the Canadian Government decided they had to license Low Power stations.

Now, there is a new twist. A similar guy has been putting in Satellite Receivers and broadcasting the reception of Satcom 1 to entire North Woods small towns. This got the government up in arms because: 1. It was a violation of International Treaty to rebroadcast without permission, and without paying for it. 2. They were getting all kinds of unlicensed TV transmitters broadcasting on the TV band illegally, and 3. Canada has a big drive to not allow or to discourage watching (heaven forbid) American programming. Canadians are supposed to watch Canadian programming.

So, they had to do something; they are now allowing a firm (acronym is CANCOM) to broadcast 4 channels by satellite. The local contractor (broadcaster) pays \$4 per family per month, scrambles and sells it for whatever he can get, whether he distributes by cable or scrambled LPTV.

We get calls every week from satellite receiver owners, such as a Texas rancher who wants to get his good reception 3 miles down the road to his hired hand's family, and he wants a low power license. Well, let's just say, after getting into the LPTV licensing gobbledegook and finding out that they are not licensing them anyway, in Texas, he just buys some inexpensive CATV type equipment and broadcasts it down the road. What do they need the paperwork for? There are, believe me, many of these low power operations going now, and many more in the works. Get enough of these popping up all over the country and the FCC is going to realize it has to get LPTV licensing off the ground, or LPTV will go on without FCC blessing. They are also going to eventually realize they need to set up another simple licensing system called "Mini Power". More on this later.

### FCC SLOWNESS MAY GET EVEN SLOWER.....

The FCC was budgeted for approximately 1941 employees in 1982. Reagan's requested 12% cut has not been acted on yet by Congress. If it prevails (it may not), we have been informed that 125 temporary Commission employees would be laid off; 79 more would be lost through attrition, and 296 would be fired. None of these cuts will happen (even if Congress acts immediately) until March or April. LPTV means work for the Commission; look for this to be an excuse to put off LPTV or drag it way out. All government agencies tend to be against anything that means work. LPTV will be no exception.

The Lottery Law carried a section that required the FCC to have it implemented within 6 months. The staff that had been working on the LPTV rules, time and energy emphasis, it is reported, have been shifted to the lottery procedure. (Lottery is for other services besides Low Power.) As a result, LPTV final rules may be dragged out an additional 60 days. March, perhaps?

# MDS

LPTV people interested in MDS may want to contact **Microband** at (212) 867 9590, which is heavily involved with MDS.

## MAYBE YOU ARE BARKING UP THE WRONG TREE.

or

## MAYBE YOU SHOULD BARK UP TWO TREES.

Looking through LPTV applications you will discover many MDS owners and many MDS programmers applying.

It appears that they look upon Low Power as a valuable Auxiliary license. Perhaps Low Power applicants should look at MDS as an auxiliary opportunity. The proposed rules say that you can only own one LPTV station in a market, but it does not say you cannot also own an MDS service and an LPTV station.

Many Low Power applicants cannot seem to decide: do they want to be a subscription station, where the money supposedly is, or do they want to be a totally free station, sponsored by advertising?

If you also program an MDS, you can do both at the same time. As a matter of fact, you could use your LPTV "free" station to advertise your pay MDS service.

What is MDS? It is Multipoint Distribution Service, into which the FCC has built another quirk. The transmitter and license owner has to be a separate entity from the programmer, and it is set up on a common-carrier basis. So, you have to decide, are you going to be the transmitter and license owner, and lease it to someone else to program, or are you going to get Uncle Louie to own the MDS license and transmitter, and you be the programmer?

There are some economies here. If you own or lease a transmitter site or tower, it costs very little more to put in a second transmitter and antenna. (Outside of the transmitter and antenna cost.) We use the same or joint satellite receiver setup. You could use the same personnel with little additional expense to operate both.

The MDS subscriber needs a microwave antenna and a downconverter and in many small towns MDS operators do not bother to scramble as a result. HBO supplies MDS satellite program services for about \$3.50 per subscriber per month. If you charge \$15.95 per month, which seems about average, you can often pay for an MDS station in as little as 6 months. Understandably, you can do the same thing with low power, but MDS has an advantage in that it is not tied up by the FCC; now we are — now we are not, monkey business like LPTV. Licensing is rather straightforward. There are only two MDS channels available in each city, but there is talk of the Commission expanding this to 5 channels in each city. You could very nicely operate both MDS and LPTV in your city, if the MDS channels are not already gone.

Transmitters and transmitter antenna costs are similar to LPTV UHF apparatus. Main supplier of MDS transmitters is EMCEE, Box 116, White Haven, PA 18661 (717) 443-9575. Main disadvantage of MDS is that each homeowner requires special antenna and downconverter (about \$65.) However, in small towns, this may be as good as scrambling (or better). At MDS frequencies, line of sight to transmitting antenna from each subscriber is essential.

.....

**WE LOOK FORWARD TO ACTUALLY MEETING  
OUR SUPPORTIVE SUBSCRIBERS**

We have sent money to lease an exhibit booth at the National Translator Association's convention, Nov. 5-6-7 at Albuquerque, so if you attend that convention also, be sure and stop and say hello. We hope to see many of you at the Crash Course we're giving afterwards.

We are working out details on Video and Audio taping of activities and our 2 day LPTV Crash Course, so if you should not be able to attend, you could get much of it that way. Whether we can work out a deal to just rent you the tapes or just sell them or both, what ever would work out most conveniently and least costly to you, we have not yet determined and firmed up. Drop us a line if you are interested in tapes. Remember, we are not a money grabbing, what the traffic will bear, outfit. We will try to make them available at little over our actual costs.

However, our experience is that by actually attending this type of course, you will discover you learn as much or more just visiting with other attendees as you do from prepared programs. We will also try to bring you in the next issue of this magazine what we learn at the 2 events from that source. If you attend, I am sure you will pick up much additional information of that type yourself, that even we miss.

We have a lot of people that think we sell consulting service, or that we sell equipment. That apparently is where the money is.

We intend to stay however only in the LPTV information publishing business and run some informational seminars to fill in needed information gaps. We provide whatever hotline phone service information we can free of charge to our subscribers and what we don't know, we will either find out or refer you to someone that can answer your questions or problem.

There are so many different video, electronics, broadcasting, etc. shows annually that you cannot afford, time and money wise, to attend them all, so we try to attend as many as possible for you and report what, or as much as you would have learned had you attended personally, pertinent to LPTV, in this magazine.

To avoid confusion as to what we do in regard to LPTV; we are thinking of using Lo Power Community Television Publications as our main name for doing business. We will have an additional phone number in probably by the time you read this. It is 990-2669.

