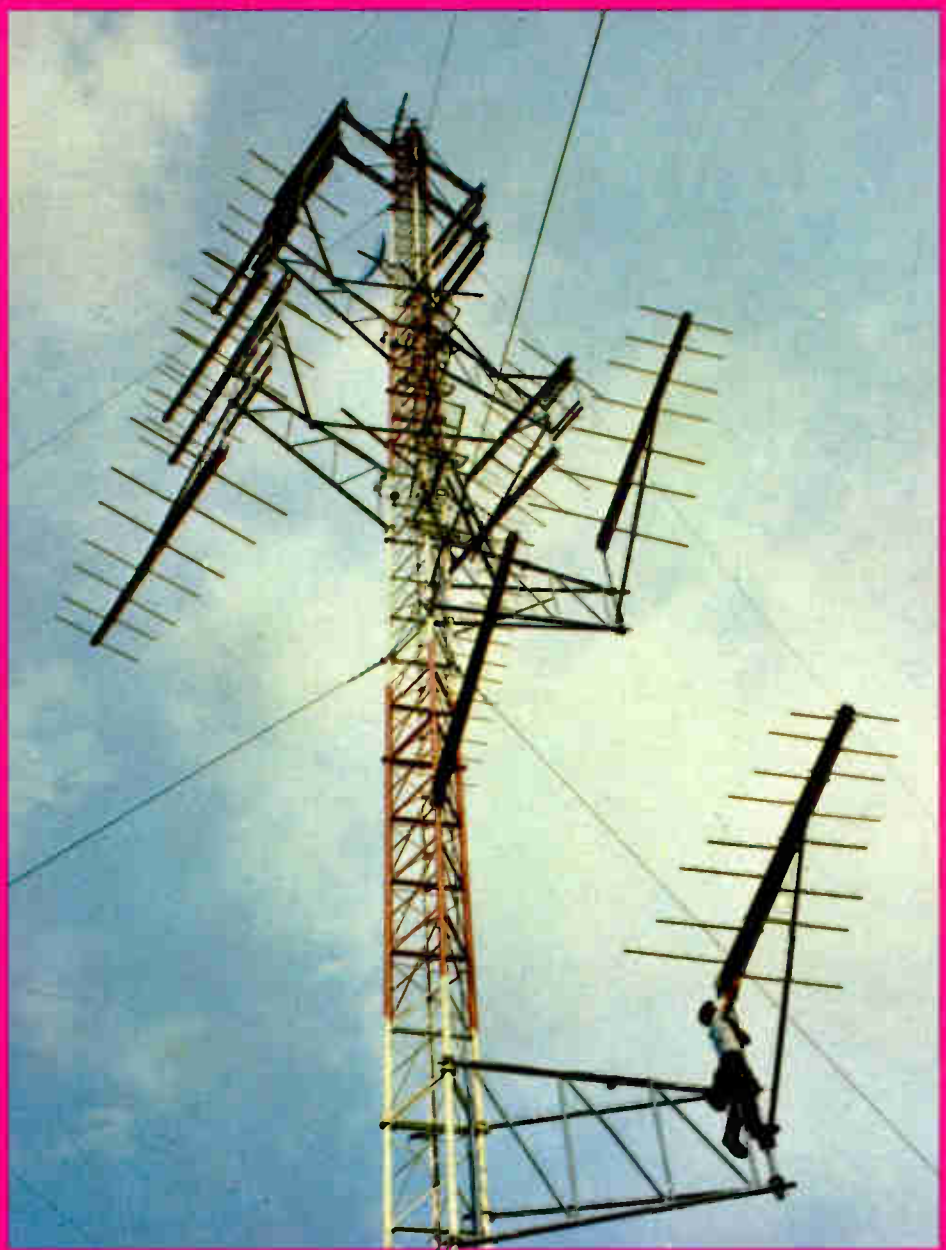
May/June '72 vol. 8/ no. 3

CABLECASTING
Cable TV Engineering

SCTE
The official journal of the
SOCIETY OF CABLE TELEVISION ENGINEERS



ANTENNA RADIATION PATTERNS
& CO-CHANNEL PROTECTION


2-WAY CATV
2-WAY CATV
2-WAY CATV
2-WAY CATV

Charles S. Tepfer
Editor & Publisher

Paul Daniels
associate editor

Pat Scott
art editor

Sandy Abrams
circulation &
reader service

Al Leon
national sales representative
11105 Post House Court
Potomac, Md. 20854
301-299-7224

EDITORIAL &
ADVERTISING
OFFICES:
607 Main Street
Ridgefield, Conn. 06877
(203) 438-3774

CABLECASTING

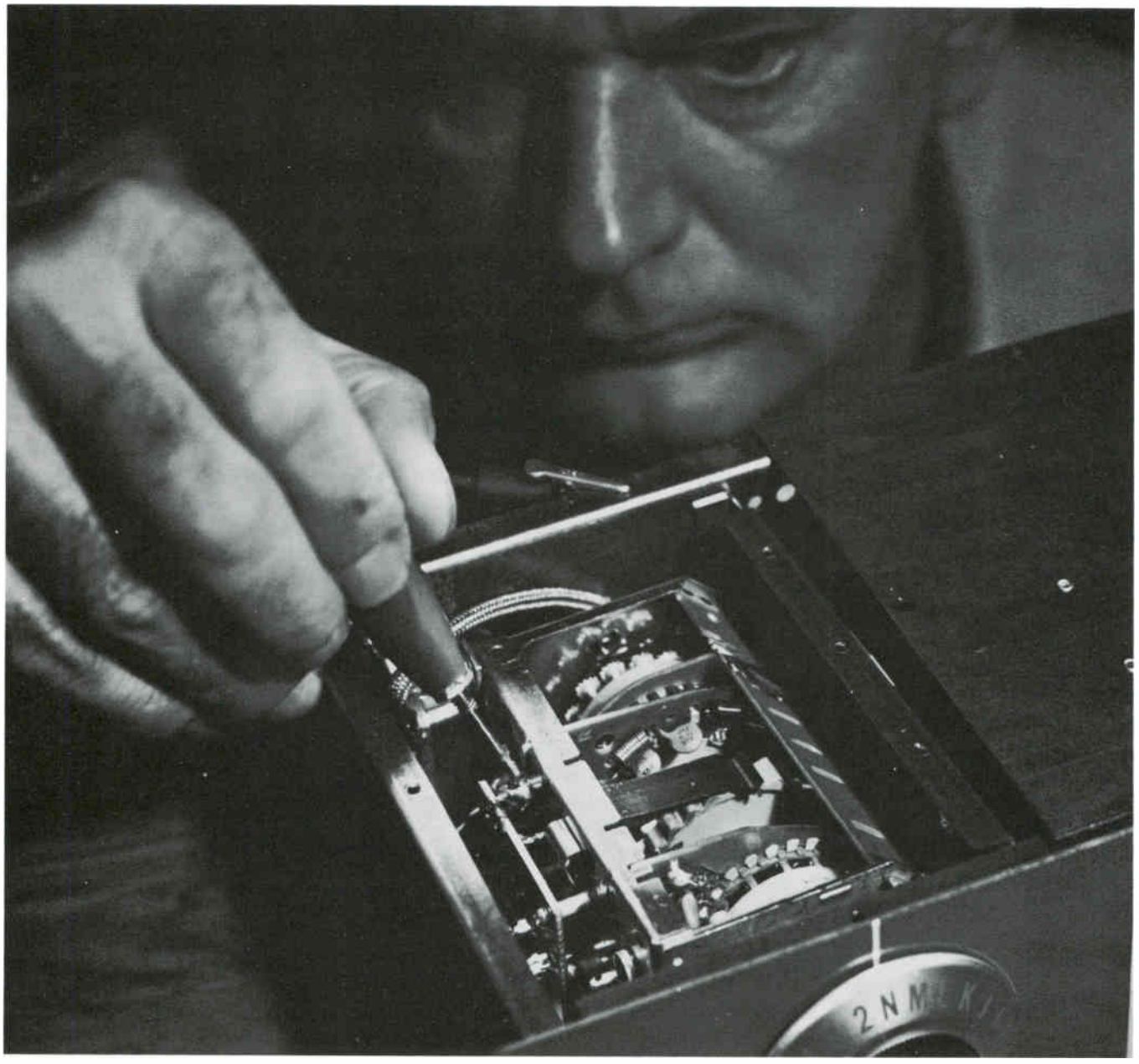
Cable TV Engineering

May/June '72 . vol. 8/ no. 3

Contents

CABLECASTING — Cable TV Engineering, the official journal of the Society of Cable Television Engineers, is published monthly by the C. S. Tepfer Publishing Company, Inc., and is circulated to all members of the SCTE, the chief technical personnel, managers, owners and operators of all CATV systems, and appropriate consultants, distributors, manufacturers and government and military agencies.

Controlled circulation postage paid at Danbury, Conn. All notices pertaining to undeliverable mail or subscriptions to be sent to the publisher, C. S. Tepfer Publishing Company, Inc., 607 Main Street, Ridgefield, Conn. 06877.



A first rate system deserves first rate engineering

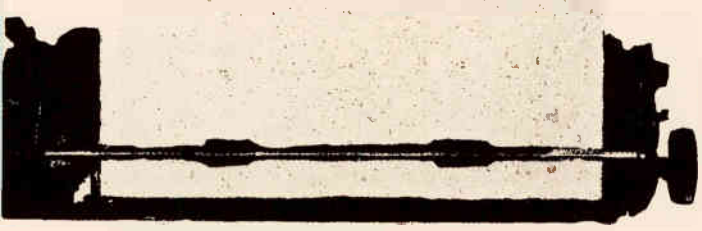
Oak CATV Converters protect the integrity of your system. We've discarded outmoded 12-channel thinking and designed a converter that meets the specific challenges of CATV. The result: 26-channel tuning, 100 db immunity to direct pick-up, input-output isolation of 70 db, ultra-stable oscillators. Oak is far superior in adjacent channel rejection, noise figure, cross modulation and drift characteristics on any channel. And we fight obsolescence by providing space for additional circuitry within the housing like decoders or transponders.

Only Oak now offers U.L. listed electromechanical or varactor tuned converters, with or without AFC, all (including power supply) inside a single, attractive unit.

First rate engineering has kept us first. CATV systems buy more Oak Converters than all other suppliers combined. With our 25 years of TV tuner experience, we can show you that the first move to Oak is the best move you can make. Write or phone for additional information.

CATV DIVISION
OAK ELECTRO/NETICS CORP
CRYSTAL LAKE, ILLINOIS 60014 (815) 459-5000
TELEX: 722-447

As We Go To Press



CYPRESS COMMUNICATIONS CORP. SEEKS FRANCHISE FOR DAYTON IN COOPERATION WITH CITIZENS GROUP. Cypress Cable TV of Dayton, Ohio, a subsidiary of Cypress Communications, has asked the City to authorize the construction of a $5.5 million cable TV system to serve the urban center of the city. In addition, a jointly-owned firm in association with Citizens Cable Corp., a corporation owned solely by residents of a predominantly black area, will seek to build a $2 million cable system in southwest Dayton. Breaking up the city in this way is in accordance with the recommendations of a report prepared by the RAND Corporation.Cypress willinvest up to $1.9 million in the southwest cable system for a 50% interest. The remaining 50% will be owned by Citizens Cable Corp. which will pay $500,000 for its 50%; $400,000 of that amount will be loaned to it by Cypress on a long-term, low interest basis. The minority owned coporation plans to finance the balance by a registered public sale of its voting stock, limited to persons residing in the service area of the cable network.

* * *

CABLE TV COMPANY SUES SOUTHERN BELL FOR LEASEBACK SERVICE DAMAGES. Cable Television Co. of Charlotte, N.C., serving 7,000 subscribers, has entered a suit against Southern Bell Telephone Co. for damages resulting from their CATV leaseback service. In a recent interview, Sam Street, president of the managing company, stated that the defective leaseback plant is costing the cable TV company thousdands of dollars in lost revenue and maintenance, plus hundreds of unhappy subscribers. The company owns 155 miles of CATV plant in Charlotte and leases an additional 145 miles of plant from the telephone company. In the complaint, Cable Television Co. alleges that the defective leaseback system will cost $399,000 to rebuild.

* * *

TVC TO ACQUIRE CYPRESS. TeleVision Communications Corp., a wholly owned subsidiary of Warner Communications Inc., has reached an agreement in principle to acquire Cypress Communications Corp. in an exchange of stock valued at about $58.7 million. If and when the deal goes through, TVC's cable TV holdings will serve about 360,000 subscribers, making it number two to TelePrompTer.(which has about 620,000 subs)... MACLEAN-HUNTER CABLE TV BUYS 25% INTEREST IN EDMONTON SYSTEM. Subject to approval of the Canadian Radio Television Commission, Maclean-Hunter will have the 25% interest in QCTV Limited, which holds a cable TV license for the west half of the City of Edmonton, with a potential of some 75,000 homes in its area. The system presently serves about 1,500 homes and is in the first phase of its construction.

* * *

WISCONSIN, GEORGIA SYSTEM COMPLETED. AEL Communications Corp., the CATV subsidiary of American Electronic Labs in Lansdale, PA., has just completed turnkey installation of dual cable plant in Racine, Wis., for Telecable of Racine (a division of Telecable Corp. of Norfolk, VA.). This system sonsists of more than 200 miles of plant. AEL has also completed a turnkey installation of a 200 mile plant in Columbus, GA. for Telecable of Columbus... TOCOM FILES FOR A PUBLIC STOCK OFFERING. TOCOM,Inc. (formerly CAS Manufacturing Co.) of Dallas has filed a Registration Statement for a proposed offering of 267,000 shares of common stock. Underwriters are McKinney, Rose & Co. of Dallas... John R. Woods, President of Systems Wire and Cable Inc. reported 1972 first half earnings of $113,441, a 13% increase over the same period of 1971...General Instrument Corp. Chairman predicts CATV growth rate of 21% for the building and rebuilding of CATV systems. According to Mr. Moses Shapiro, the CATV market will go from $145 million to $255 million by 1974.

Its potential is so vast, many experts think it will be our greatest resource.

We agree. And the vital link of this interactive network will be cable—the same type of high-quality cable Comm/Scope manufactures today:

- **Extended Spectrum Coaxials** which give you long-term signal stability and no discontinuity to 300 MHz and beyond. They're backed by the industry's only five-year written guarantee.
- **Individually-Shielded and Balanced Video Pairs** for high definition transmission—no AC hum—from studio to head-end, remote pick-ups to head-end, and from remote pick-ups to studio.
- **Alumadrop Coaxial Drop Wire**, an all-purpose coaxial drop wire having excellent electrical characteristics. Very strong and flexible.

These are the cables for broad-band, and Comm/Scope can put them in your hand today.

For information and prices, write or call:

COMM/SCOPE CORPORATION

P. O. Box 2406 Hickory, North Carolina 28601
Phone 704/328-5271
A SUPERIOR CONTINENTAL COMPANY

Warehouse Locations: San Rafael, California; Dallas, Texas; Tampa, Florida; Seattle, Washington; Sherrills Ford, North Carolina; Woodbridge, New Jersey.

PEOPLE IN THE NEWS

GEORGE L. FLETCHER has joined Suburban Cablevision Inc. (Whippany, N.J.) as Manager of Field Engineering. In this newly-created position, Mr. Fletcher will be responsible for the technical performance of the company's CATV systems, assuring that they are in compliance with the new FCC regulations. Mr. Fletcher brings with him seven years of experience encompassing design, engineering and field sales.

• • •

DUANE CRIST has been named Acting Sales Manager of the Theta-Com CATV Division (formerly Kaiser CATV). Mr. Crist joined Kaiser CATV in 1970 as manager of Special Projects after serving with Anaconda Electronics from 1967 to 1970 as Vice President-Marketing. Prior to that he was with Ameco.

• • •

ROBERT SCHENROCK has been appointed Manager of the Allband CableVision system (of TeleVision Communications Corp.) in Olean, N.Y. Mr. Schenrock was superintendent of construction for TVC's Akron CableVision and before that for Cablevision of Savannah and for Jerrold.

• • •

MELVIN GRAY, who was a sales engineer in the New England area for Jerrold Electronics, has been advanced to Northeastern Regional Sales Manager by the firm. Mr. Gray is a communications graduate from Boston University; he joined Jerrold in 1957.

Be sure the color you originate will compare to network quality.

This is the $65,000 Norelco PC-70. The 3-Plumbicon* color television camera that's used to televise more live and taped network TV shows than any other camera. It is the standard of the television industry. Buy it, if you can afford it.

This is the new Norelco LDH-1 color camera. A remarkably stable, all-purpose 3-Plumbicon* (or Vidicon) camera that has major design advantages of the PC-70. It brings faithful live and film color within easy reach of any CATV station because it costs as little as $14,970.

Be sure you select Norelco®

Philips Broadcast Equipment Corporation
One Philips Parkway, Montvale, N.J. 07645
A NORTH AMERICAN PHILIPS COMPANY

Check this list for the Norelco CATV Distributor nearest you:

Arkansas All-State Supply, Little Rock • **California** Tri-Tronics, N. Hollywood; General Electronics, Oakland • **Carolinas** Electronic Systems, Columbia, S.C. • **Colorado** Video Electronics, Lakewood • **Florida** Midwest Telecommunications, Miami; Videx, Orlando • **Georgia** Electronic Equipment, Atlanta • **Hawaii** Hawkins Audio Engineers, Honolulu • **Louisiana** Interstate School Supply, Baton Rouge • **Metropolitan New York/New Jersey** Norcon Electronics, Brooklyn; Sonocraft, New York; Tele-Measurements, Clifton • **Michigan** R.P. Hermes, Detroit • **Mid-Atlantic** Lerro Electrical, Philadelphia • **Minnesota** Wahl & Wahl, Minneapolis • **New England** Northeast Electronics, Needham, MA • **Puerto Rico** Philips Electronics, Santurce • **Texas** Video Systems, Houston, Austin, San Antonio; Video Electronic Systems, Lubbock • **Utah** Intermountain Video, Salt Lake City

*Reg. TM N.V. Philips of Holland

RELIABILITY THROUGH TOTAL AUTOMATION OF CATV SYSTEM DESIGN

by Ivan T. Frisch, Bill Rothfarb, & Aaron Kershenbaum
Network Analysis Corporation

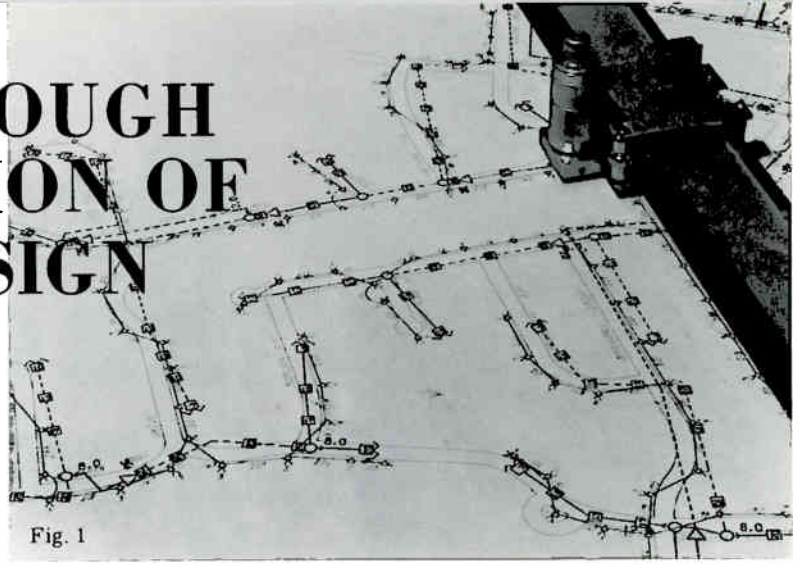


Fig. 1

In the July/ August, 1971 issue of **Cablecasting** magazine, we described the principles of computer CATV system design. Since that time, we've made some changes in our operations and learned some things which we think may be of importance to cable television engineers interested in the application of computer technology to system design

To augment its CATV design service NAC has recently completed an automated drafting program. With this new feature, layouts developed by NAC'S design program are drawn as complete final construction maps by an automatic drafting machine under direct command of the computer. The specific advantages of automatic drafting are numerous:

Elimination of Drafting Errors. One time-consuming factor in the past has been the drafting and checking of maps. Once a human is introduced into the design-drafting process, errors are introduced and hence there is a need for a long checking process. To check a typical 100-mile system for every tap value and location, as well as all amplifiers, power supplies etc. takes a checker about one week, and still drafting errors slip by. With the automatic plotter, the layout is **drafted** exactly as designed. The net result is less headaches for construction crews and better systems for owners

Faster Layouts. The 10 mile system shown in Figure 1 was drafted by the computer in 15 minutes, including all linework, symbols and lettering. A typical 100 mile system is drawn automatically at 200' to the inch, in about **four hours** of plotter time. In other words, the time to produce correct drawings has been reduced by a factor of 20 over the efforts of a draftsman and checker.

Complete Flexibility in Drawing Modifications. As any system designer knows, very few layouts remain untouched once they are completed. Strand changes are discovered. Telephone poles seem to move with a life of their own and people are found to live on unmapped streets. Often these sections are redesigned on the spot. The new information can then be fed to the program which will modify the appropriate sections of layout or redraw a whole map, or a whole system as the user wishes.

Complete Flexibility in Presentation. The computer can make the drawings to any scale. You may want one drawing at 200' to the inch and another overview drawing at 400' or 1000' to the inch. Instead of resorting to microfilm and photo reduction methods, the plotter will simply produce the required drawing. It can isolate any section of the design and draw it to any required scale. For example, it can break out the trunk routing as a separate drawing.

Complete Flexibility in Format. The program has a library of symbols that can be used for any particular device. If the system owner wishes a different symbol, it can easily be added to the library. At present we have all the NCTA standard symbols in the library as well as many variations of these symbols in use by our clients.

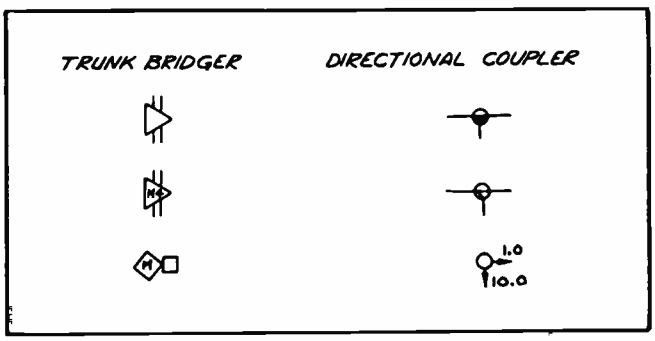
Thus, for example, the symbols for trunk bridgers and directional couplers shown in Figure 2, are all in the library, even though the last symbol for the trunk bridger is not a standard NCTA symbol.

In summary, automated drafting produces its results faster than humans without introducing drafting errors. The system owner does not have to choose speed or reliability; he gets speed and reliability.

Reliability And Flexibility

One of the most persistent misconceptions fostered by manual designers is that they "overdesign"

Fig. 2. Some of the symbols in NAC's computer library of symbols.



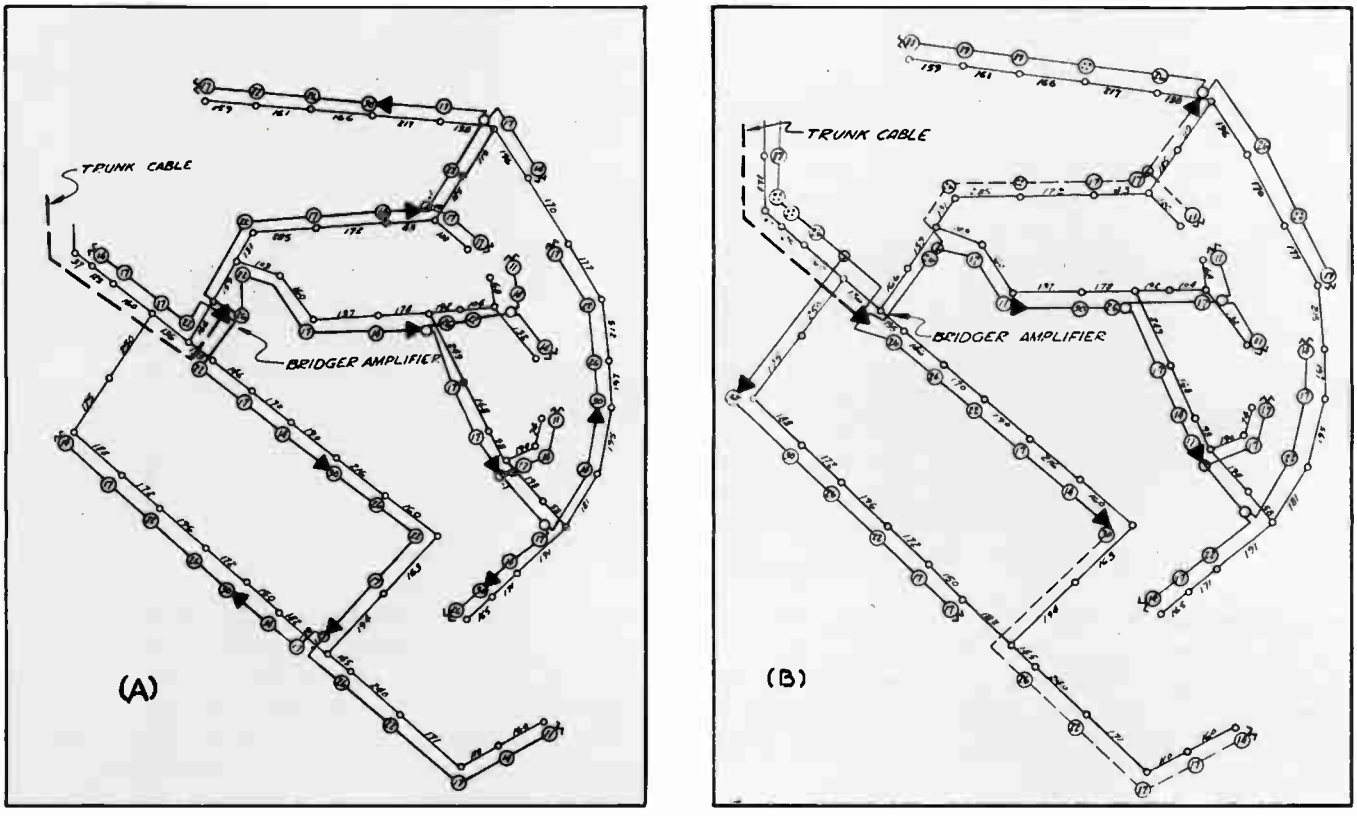


Fig. 3. Comparison of NAC's computer design with an industry manual design. (A) is industry design; (B) is NAC's computer design.

a system by putting extra amplifiers in so that they have more reliability and more slack for flexibility. **This is absolutely false.** There is indeed extra equipment and more cost. But, obviously, with more electronics there are more failure prone elements in the system and less overall reliability.

For example, the design in Figure 3A shows an industry manual design for one section of a larger 100 mile system. The computer design for the same section is shown in Figure 3B. The manual design has 4 more extender amplifiers than the computer design. Furthermore, there are 3 places where there are 3 extenders in cascade in the manual design whereas there are none in the computer design. The computer design is obviously more reliable. In general, if reliability data is available for different types of amplifiers, such as trunk and extender amplifiers, the computer will take them into account trading off amplifiers for the best design.

The claims for added slack and flexibility in manual designs also turn out to be patently false upon examination of the available evidence. As an example, the minimum input level to extender amplifiers in the designs in Figure 3 was 20 dBmV. For the computer design, signal levels are high enough so that the feeders could be extended or taps could be added if necessary without adding extender amplifiers. In the manul design, some of the end levels are tighter even though there are more amplifiers. Furthermore, the computer designed system is easier to expand or change because there only two extenders in cascade.

The net result is that the manual design with more electronics is, in every sense, a poorer design--more expensive, less reliable and less flexible. **The manual design has wasted electronics** which in no sense adds to the system performance--only the system cost. The way to improve system reliability is to first adopt more rigid system specifications--and then find the most cost effective design meeting those specifications. With computerized design, it is actually possible to design to significantly tighter specifications with no additional cost over a more poorly performing manual design.

In addition to drafting errors and poor designs one of the primary hazards of manual designs to system owners, builders and users are good old-fashioned errors and blunders. Sometimes these are errors in bills of materials, but more often and more seriously, they are technical errors which make the system unreliable, or indeed, incapable in meeting contractual specifications.

Manual Design Errors

The types of errors made by manual designers, of course, include every possible error that can be made. Some of the more prevalent and representative types that we have come across are shown in the examples below. Needless to say, the computer can not make these errors.

Signal levels at subscriber taps. In the portion of the industry design shown in Figure 4, the output levels of the taps are given. The required tap output level is 10 dBmV. Note that on one tap the signal level

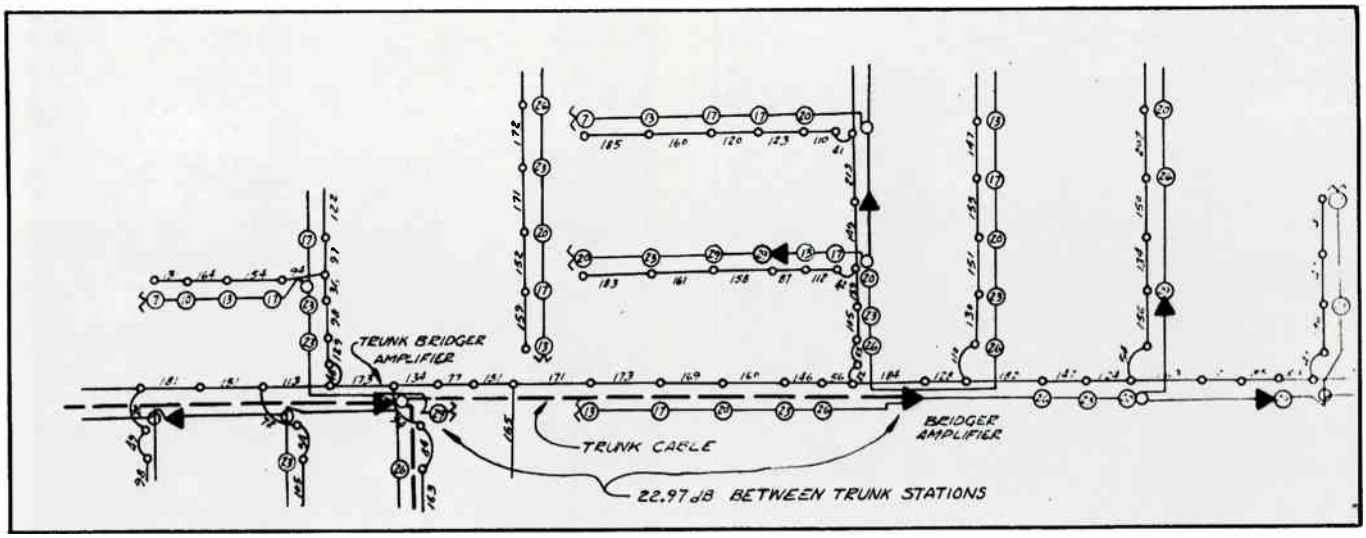


Fig. 5. A manual design in which trunk spacing violates system requirements.

is 3 db too low--the customer is receiving only one half his required signal power. This is one of the most persistent types of design fudges. In one design, the signal over 20 of the taps did not meet the required output level. With proper design this type of fudge is unnecessary.

Trunk spacing. In Figure 5 is a manual design in which the required 22 db trunk spacing is exceeded by .97 db. Errors on the trunk of this sort are truly unfortunate since the resulting distortion propagates throughout the remainder of the system. In major markets where cable signals are competing with off-the-air pickup, the resulting poor quality pictures are particularly serious.

Power requirements. Figure 6 shows an industry design with 6 extender amplifiers drawing power from one output of a trunk bridger amplifier thereby exceeding the power passing capability of the bridger. This means that subscribers will not be getting decent service until a section of the system is rebuilt.

Our experience has shown that these types of errors occur repeatedly in manual designs. Why are there so many errors in layouts produced by industry designers? There is probably no single reason although there are obviously many critical factors.

The quality of designers in the industry varies greatly. A designer with five years experience is usually superior to a designer with one year of experience. With the rapid turnover of designers, and the rate of introduction of new lines of equipment, many designers don't get much experience with particular equipment. With those that do, the "Peter Principle" takes its toll: good designers don't usually end up being good designers--they end up being managers.

If the situation is bad now, there are indications that it will get worse. If the recent FCC rulings lead to a spurt in construction, the present designers are clearly going to be swamped. The typical design will be even poorer and may take longer to produce. The FCC decision makes the computer not only a useful tool but a **vital** one.

Fig. 4. A manual design in which tap output levels do not meet specifications.

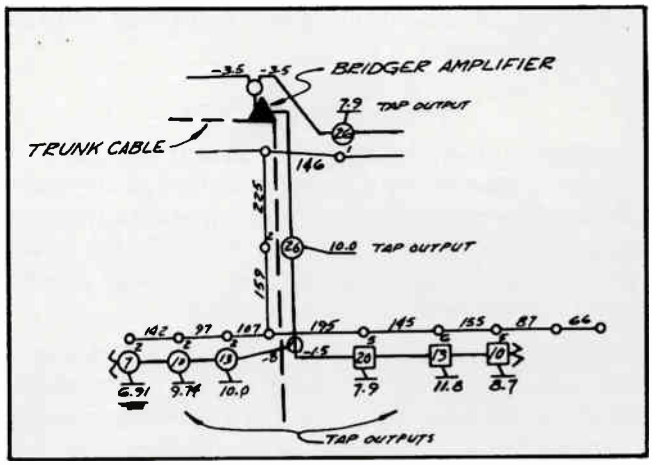
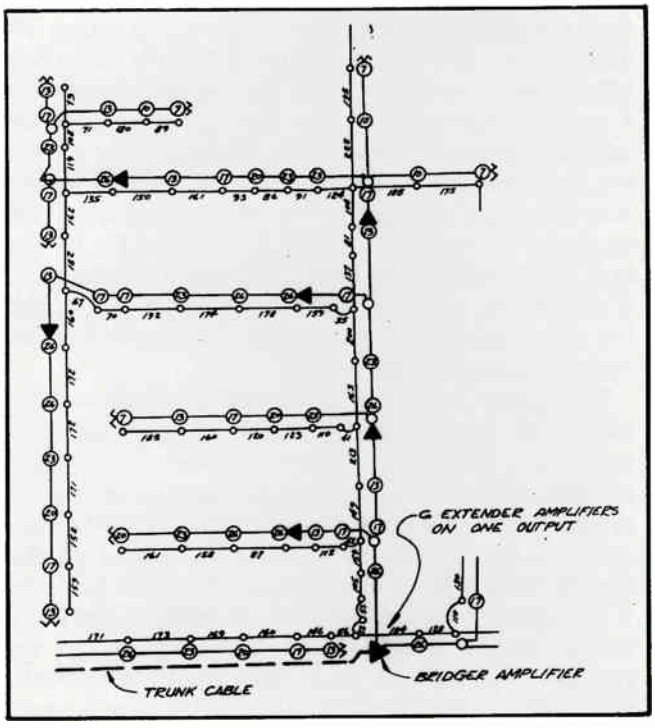


Fig. 6. A manual design in which power passing capability of a trunk bridger amplifier is violated.



ANTENNA RADIATION PATTERNS & CO-CHANNEL PROTECTION

by Steven I. Biro
B-RO Antenna & Head-End Engineering

Antenna manufacturers publish a more or less complete list of electronic parameters on their specification sheets, including: gain, bandwidth, input match, front-to-back ratio, beamwidth, etc. As far as co-channel protection is involved, specifications such as bandwidth, gain and match are **not** pertinent. What really counts is the antenna radiation pattern; not over-optimistic and over-simplified graphs, but the **actual** radiation patterns, as recorded on the antenna test range. Let's discuss the most important aspects about radiation patterns, and how to evaluate them.

RADIATION PATTERN BASICS

Co-channel interference protection is basically an antenna radiation pattern problem. At one extreme, let's consider the turnstile type antenna. Exhibiting a horizontal omnidirectional pattern, Figure 1 (A), the antenna would receive stations from all directions, generating intolerable co-channel interference conditions.

On the other hand, the ideal CATV antenna array would exhibit a pencil beam radiation pattern, Figure 1 (B), receiving signals only from one direction, the direction of the **desired** station. This antenna would reject any other station operating on the same channel.

In the real world of CATV, where co-channel protection is primarily a **low-band problem**, pencil beam type radiation patterns are unattainable because the size of the array could easily approach the dimensions of a football field. Today's CATV arrays exhibit radiation patterns with a more or less narrow main lobe, and numerous side and backlobes. Should the antenna array create a null in the direction of the co-channel offender, protection is assured. If the antenna array happens to exhibit medium or even minor lobes in the direction of the co-channel station, the array will provide only **limited** protection.

Antenna manufacturers often publish vertical (H-plane) and horizontal (E-plane) beamwidth data, and radiation pattern displays. Since various co-channel offenders arrive from different **azimuth angles**, the vertical radiation pattern information is irrelevant. Only the horizontal (E-plane) will fully describe the antenna performance as related to co-channel protection.

The horizontal radiation pattern of an antenna may be presented in polar or rectangular coordinates. Polar presentation is preferred in popular publications because this information gives an easy to understand picture of the received or transmitted power distribution. By contrast, the **rectangular** radiation pattern permits a presentation of much finer details, including precise angle and dB readings of peaks and nulls.

The radial deflections on the polar and rectangular charts may be arranged in:

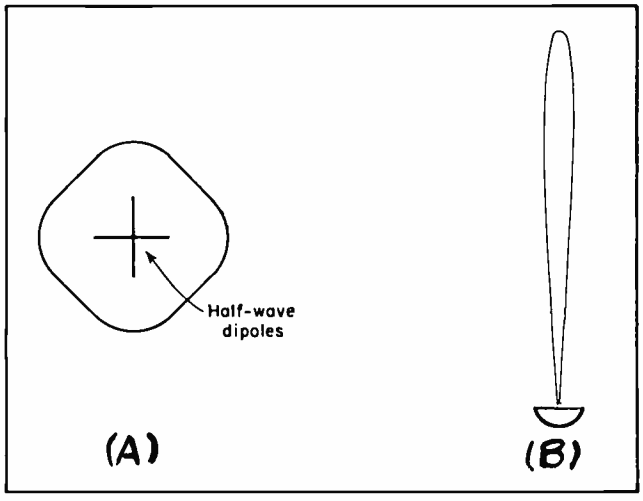
Linear scale

Power scale

dB scale.

The dB scale, presenting the received signals' logarithmic variations, is the most suitable for the

Fig. 1. Polar radiation patterns for a turnstile antenna (A), and an ideal CATV single channel array (B).



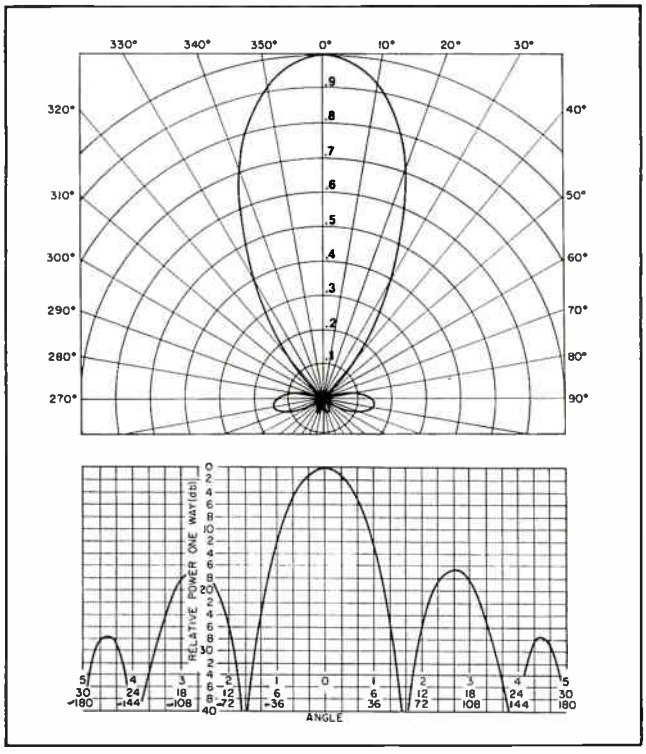


Fig. 2. Here the same antenna has been tested twice. Compare the readability of a polar and horizontal radiation pattern presentation.

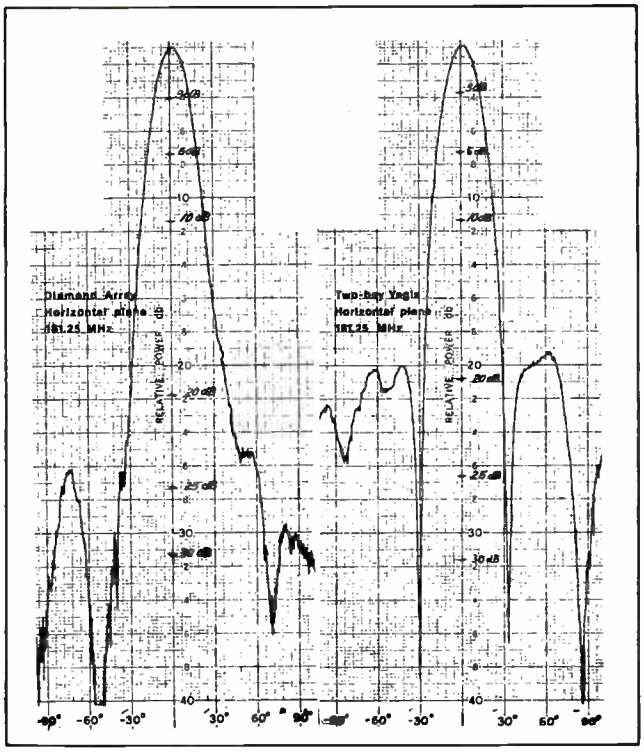


Fig. 3. Side-by-side presentation of radiation patterns of a standard diamond array and a custom-designed array of yagis. The co-channel interference was arriving from -30 degrees.

examination of antenna array radiation. A dynamic range of 40 to 50 dB permits the evaluation of deep nulls and otherwise fuzzy sidelobes.

Figure 2 presents a polar and a rectangular radiation pattern taken from the same antenna. It should be noted that while location, depth, and width of the null of 168° is somewhat unclear on the polar pattern, the rectangular pattern offers good readability.

RADIATION PATTERN ANALYSIS

There are a number of important factors determining the co-channel protection capability of an antenna-array, all readable from the radiation pattern:

The exact azimuth angle of the nulls

The depth of the nulls

The width of the nulls

The shape of the main beam.

Actual co-channel offenders should be identified by an on-site signal survey. The azimuth angles of these identified offenders may then be determined to the last 1/10° by computer controlled calculations. Thus the CATV engineer should be convinced that on the wanted channels, the radiation pattern nulls fall in such an angle.

If a standard antenna-array is used, such as a diamond array of L-P antennas with a fixed mechanical structure, the radiation pattern must be closely examined to see if it exhibits a null in the direction of the identified co-channel interference. On the other hand, an antenna array may be custom designed to **force** nulls in the directions from which the interfering signals arrive. In these cases, actual radiation patterns may confirm whether the nulls are right on the target, and how deep they are.

Nulls exhibiting 20 dB depth cannot be considered adequate co-channel protection. 40 dB deep nulls are highly desired but seldom demonstrated on actual radiation patterns.

Figure 3 is a side-by-side presentation of the diamond array versus a phased yagi on Channel 8. Compare the co-channel protection results at -30° off from the main direction.

The depth of the radiation pattern nulls may also be conveniently identified from a rectangular radiation pattern with a dB scale, enabling the CATV technician to confirm manufacturers' specifications, or to discover over-optimistic claims.

Figure 4 illustrates the need for F/B ratio specification checks by radiation patterns. The manufacturer's specifications stated 30 dB protection from the back. The radiation pattern indicates that the array indeed provides 30 dB protection from 180°. However, the co-channel offender, arriving from 165° azimuth — and we can still call this "from the back" — will be attenuated only by 25 dB. This is 5 dB short of expectations based on "general" specifications.

The width of the null is an additional important characteristic with which to be concerned. From a dB scale rectangular radiation pattern, this parameter

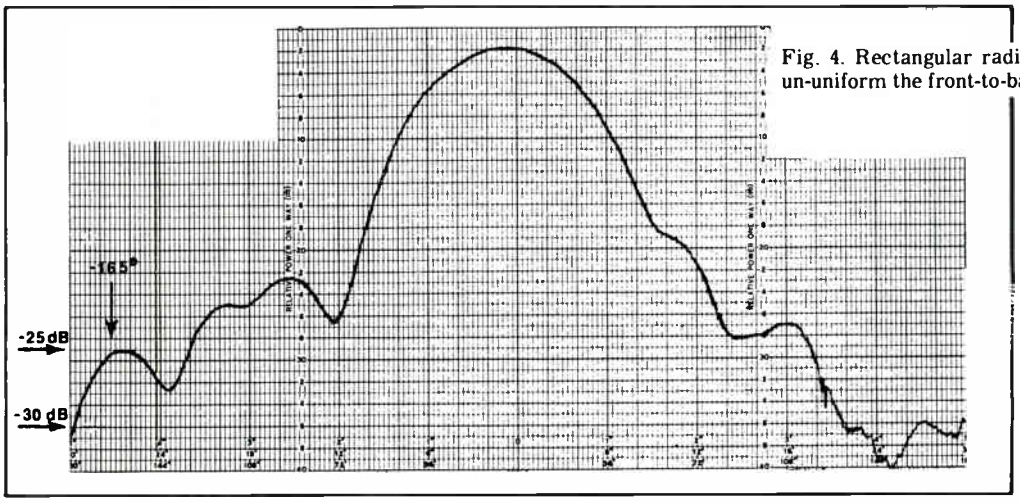


Fig. 4. Rectangular radiation pattern showing clearly how un-uniform the front-to-back ratio can be.

may be precisely measured at any null location. Very narrow (1° to 3°) nulls should warn the CATV technician of two possible problems:

1. It is difficult to orient a tower mounted CATV array with such accuracy due to normal working conditions.
2. Under medium to heavy wind conditions, the twisting of the CATV tower, combined with the movements of the antenna gates and pipes, could skew the nulls of the radiation pattern by several degrees, thus significantly decreasing co-channel protection.

Nulls of 5° to 8° width are considered optimum for CATV application.

It is not uncommon to encounter asymmetrical radiation patterns. A re-examination of the diamond array pattern and horizontally stacked two-bay pattern (Figure 3) shows a number of asymmetrical features. These include a missing null at -90° on the two-bay pattern, and the development of a broad shoulder on the diamond array at +50°. These are warning signs indicating that either the antenna test range or the constructed arrays have hidden faults. If co-channel conditions warrant the need for extreme caution, the radiation pattern testing should be repeated on a slightly altered test range, or with a different mounting, in order to identify the nature of the asymmetrical pattern performance.

Figure 5 is a classical example of a questionable radiation pattern, not to be accepted for evaluation purposes. The radiation pattern of a log-periodic antenna is presented in this chart. Note that the signal level responses differ considerably at 180°, for no apparent reason. On the left side, the curve dips to -22 dB, while on the right side it levels off at -13 dB. The resulting 9 dB difference between the left and right side could indicate that the recording equipment is not working correctly, or that the transmitter/receiver suffers from instability.

The frequency of radiation pattern testing is also an important qualifying parameter. Co-channel beats are generated by the video carriers of two or more stations. Therefore, for co-channel evaluation, the radiation patterns must be tested on the respective video carrier frequencies. The pattern response may or may not change within a couple of mHz; however, the bearings of the nulls, the depth of the nulls, and their width may shift considerably, warranting on-video carrier testing.

Antenna arrays mounted on small diameter pipes on the top of the wooden test tower exhibit perfect radiation patterns with deep nulls. But mounted on metal antenna gates, in the vicinity of a 48" or 60" face tower, they may not perform as well. Reflections from the horizontal braces of the tower and the long horizontal pipes of the antenna gates will generate phase sensitive cancellations, filling in the deep nulls in the pattern, or causing null-shifts. There is little point therefore in publishing a "mast mounted" radiation pattern for a diamond array, if the array must be mounted on a CATV tower with 40" to 60" tower face.

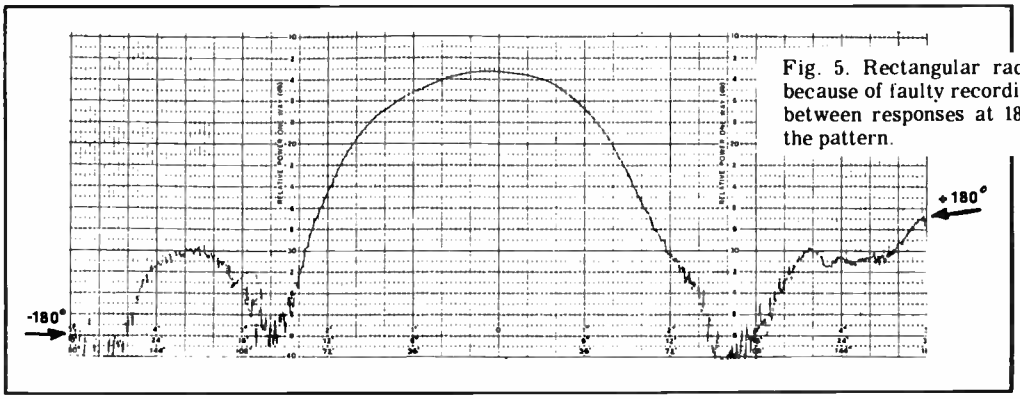


Fig. 5. Rectangular radiation pattern which is incorrect because of faulty recording equipment--note the discrepancy between responses at 180 degrees on the left and right of the pattern.

TECHNICAL SESSIONS of NCTA Annual Convention

Monday, May 15th

8:00 AM **Eye Opener Workshop**
Bel Air Rm.

Sponsored by the Society of Cable TV Engineers, this will be a free-wheeling discussion by experts regarding short haul microwave, led by Roger Wilson of TelePrompTer.

10:15 AM **Satellite/Cable System Engineering**
Williford Parkor B

A conference Highlight — this session will present information on how the cable industry will be involved in the satellite experiments for distribution of high quality television to schools and homes. An analysis of the domestic satellite situation as it relates to cable will also be presented. Speakers will be Dr. Richard Marsten of NASA and Ralph Clark, consultant.

2:00 PM **Blue Sky to Cash Flow**
Boulevard Rm.

There are a great many functions suggested for cable TV systems — some of them are even being performed. Dr. Peter Goldmark, John O'Neill of MITRE, John Ward of MIT, and Robert Behringer of Theta-Com will try to keep our feet on the ground in this guessing game.

TUESDAY, May 16th

8:00 AM **Eye Opener Workshop**
Bel Air Rm.

Sponsored by the SCTE, this discussion will cover technical training, and will be led by Jake Landrum of Commco Inc.

9:15 AM **Technical Rules and Standards**
Williford Parlor B

An unusually timely session, with the adoption of the new FCC rules and regulations, this session will present a discussion of the new technical standards, their interpretation, and techniques for conforming to them. A discussion of logical steps leading from a typical cable operation to complete compliance will be presented. Speakers are Sydney Lines of the FCC, Norman Penwell, Jerald Crusan of Jerrold, and Linley Grumm of Tektronix.

9:15 AM **Program Origination**
Boulevard Rm.

Featuring talks on audio techniques for TV by Bernard Wise of CCA, Privacy for Cable Services by Frank Eldridge of MITRE, and VTR selection by Ronald Hymas of Telemation.

2:00 PM **Cable Channel Allocations**
Williford Parlor B

This is a presentation on the next big industry requirement as it moves into operation with more than 12 services. Dr. Robert Powers of the OTP will talk on channel allocation options, Nate Levine of Sammons Communications will talk about the dilemma of mixed systems, I. Switzer will talk on carrier considerations, and Parker Ellsworth of Magnavox will describe subscriber terminal interface requirements.

2:00 PM **Cable System Operation**
Boulevard Rm.

The papers in this session will include presentations of valuable experience in many aspects of cable operation. They include discussions of a documentation process for CATV systems, of field strength monitors, and elimination of cross modulation. Also antenna site problems, surge protection and the use of retreaded aerospace engineers.

Wednesday, May 17th

8:00 AM **Eye Opener Workshop**
Bel Air Rm.

SCTE sponsored discussion on lightening protection, led by Robert Bilodeau.

9:15 AM **Two-Way System Experience**
Williford Parlor B

This session will present the real life experiences of those systems actually experimenting with two-way operation. In some cases, it will be the first public presentation of preliminary data on new systems. They will include the results of market and field tests to develop public reaction to various innovations in Norfolk and Reston Va.; Jonathan Village, Minn.; London, England; and Los Angeles.

9:15 AM **Advanced Techniques and Designs**
Boulevard Rm.

The papers in this session will discuss new or evolutionary concepts. These include improved reliability through automated system design, the application of digital transmission engineering for auxiliary services, and others.

2:00 PM **Underground Engineering**
Williford Parlor B

The municipal codes and regulations involved, installation techniques, trade-offs and costs, and reliability and maintenance factors.

2:00 PM **Multi-Channel, Microwave Distribution systems**
Boulevard Rm.

This session will present discussions of four different technical approaches to this operation. This will be an opportunity to make direct comparisons of key operating characteristics. Also, Douglas Milne of Varian Associates will talk about the new FCC proposed multi-point microwave service in the 2110-2113 mHz band.

SOCIETY OF CABLE TELEVISION ENGINEERS

Since its founding in June, 1969, the Society of Cable Television Engineers has grown rapidly. On this and the next 11 pages are the names of the current members of the Society, listed by geographic region. In addition to these members, the Credentials Committee of the Society is now reviewing the applications of many other CATV engineers and technicians who have applied for membership.

CALIFORNIA CHAPTER

Rudy A. Alcantara, Continental Transmission, 27790 W. Main, Barstow 92311

George A. Amaroli, California Public Utilities Commission, 455 Golden Gate Ave., San Francisco 94102

L.E. Best, Western California Telephone Co., P.O. Box 68, Los Gatos 95030

Thomas A. Britton, Community Cablevision Co., 500 Newport Center Drive, Newport Beach 92660

Eugene Cabral, North Bay Cable TV, Inc., 1808 Springs Road, Vallejo 94590

Donald D. Cantrell, Cablecom-General Inc., P.O. Box 1150, Santa Rosa 95402

Albert W. Carey, Sr. Peninsula Cable TV Co., 894 Industrial Blvd., San Carlos 94070

Robert C. Cermak, Thorobred Photo Service, P.O. Box 458, Gardnerville, Nevada 89410

Josh G. Chambers, Storer Cable TV, Inc., 921 Gravenstein Highway, Sebastopol 95472

Theodore R. Chesley, TelePrompTer Corp., 11661 San Vincenti Blvd., Los Angeles 90049

Richard N. Clevenger, State TV Cable, P.O. Box 1559, Chico, 95926

Laurence J. Conway, H.S. Anderson Company, 13183 Main St., P.O. Box 36, Trona 93562

Ronald C. Cotten, Concord TV Cable, 1000 Shary Court, Concord, 94526

Robert Coulter, Silver King Video, Inc., P.O. Box 898, Clearlake Oaks 95423

R.L. Cowart, San Jose Cable TV Service, 999 Blossom Hill Rd., San Jose, 95123

Frank L. Cross, Cal-Tel Construction Co., 1698 E. 25th St., Signal Hill 90806

George Cruze, Pacifica Cable, 2316 Palmetto Ave.. Pacifica 94044

Sanford E. Daigle, Sunnyvale Cablevision, 1330 South Mary Ave., Sunnyvale 94087

J.J. Dennis, Pacifica Cable, 2316 Palmetto Ave.. Pacifica 94044

Robert L. DePalmer, TelePrompTer of Santa Cruz, 1376 Soquel Ave., Santa Cruz 95060

Frank M. Drendel, Cypress Communications Corp., 10880 Wilshire Blvd., Los Angeles 90024

Michael L. Ellis, Southwestern Cable, 1433 Garnet Ave., San Diego 92109

Harold D. Ent, Continental Transmission Corp., Box 1589, Big Bear Lake 92315

William M. Erickson, Electronic Systems Engineering, P.O. Box 10474, San Diego 92110

Bernie G. Evans, Jr., Associated Telesystems, Inc., 14807 Boston Blvd., Pacific Palisades 90272

Sam F. Ewing, Television Signal Corp., 1902 Van Ness Ave., San Francisco 94109

Earl M. Faris, American Broadcasting Co., 4151 Prospect, Hollywood 90027

William A. Fink, Conrac Corporation, 330 Madison Ave., N.Y., N.Y. 10017 (800 Fairview Ave., Arcadia, Calif. 91006)

Larry Flaherty, Monterey Peninsula TV Cable, 2455 Henderson Way, Monterey 93940

Ronald H. Fried, International Video Corp., 675 Almanor Ave., Sunnyvale 94086

Harry J. Fritchie, Rossmoor Electric Inc., P.O. Box 2040, Laguna Hills 92653

Steve Gann, Continental Transmission, 27790 W. Highway 66, Barstow 92311

Ronald J. George, Tele-Vue Systems, Inc., P.O. Box 13, Pleasanton 94566

Marvin J. Gillen, Pala Mesa Cablevision, 230 W. Aviation, Fallbrook 92028

John W. Gillespie, Tahoe TV Cable, P.O. Box 1584, South Lake Tahoe 95705

Donald Gillispie, Continental Transmission Corp., 16461 Mojave Dr., Victorville 92392

Ronald A. Giorgi, Theta Cable of Calif., 7411 Enfield Ave., Reseda 91335

Clayton Graham, Continental Transmission Corp., 350 Lagoon St., Bishop 93514

Robert K. Grimes, Continental Transmission Corp., 400 E. Rice, Blythe 92225

If your address on this list should be changed, please fill out form on bottom of page 30 and return to the SCTE.

Thomas J. Hatchell, Cer-Vent Cable TV Inc., 33 13th Ave., San Mateo 94403

George W. Henderson, Theta-Com, 9320 Lincoln Blvd., Los Angeles 90045

John D. Hepburn, Televents of Calif, Inc., P.O. Box 909, Martinez 94553

Terry L. Hulseberg, Cal-Tel Construction Co., Inc., 1698 E. 25th St. Signal Hill 90806

James D. Hurd, The Catel Corp., 1030 West Evelyn Ave., Sunnyvale 94086

Richard S. Jackson, Silver King Video, Inc., P.O. Box 898, Clearlake Oaks, 95423

James W. Jenkins, Nation Wide Cablevision, 10889 Wilshire Blvd., Los Angeles 90024

Al Johnson, County TV Cable, 534 Laurel St., San Carlos 94070

Robert W. Johnson, Western TV Cable, 116-A Starlite, So. San Francisco 94080

Bengt H. Johnsson, P.O. Box 196, San Clemente, 92672

Pete B. Johnston, Napa Valley Cablevision, P.O. Box 3261, Napa 94558

Charles W. Jordan, Ameco CATV, 2 Civic Center, Daly City 94014

James E. Keeler, State TV Cable, P.O. Box 1559, Chico 95926

James A. Kirby, Continental Transmission Corp., 16461 Mojave Dr., Victorville, 92392

A.A. Kirchner, 12658 La Cresta Court, Los Altos Hills, 94022

Kester K. Krieg. TelePrompter of Santa Cruz, P.O. Box 2217, Santa Cruz 95060

Robert D. Layton, Sophisticated Sound, P.O. Box 575, San Marios 92069

Wendell R. Lee, GTEC Cable TV, 947 Front St., Novato 94947

Daniel Levine, Jack Berman Co., Inc., 8295 So. La Cienega Blvd., Inglewood, 90301

B.J. Little, Columbia Cable Systems, Inc., 449 Broadway, El Centro 92243

B. Jack Long, Trans-Video Corp., 1175 No. Cuyamaca St., El Cajon 92020

J. Bruce Lukkarila, Cal-Tel Construction Co., Inc., 1698 E. 25th St., Signal Hill 90806

J. John Martin, State TV Cable, P.O. Box 1559, Chico 95926

Louis A. Marvin, Anaconda Electronics. 305 N. Muller, Anaheim 92803

Leslie Matthews, Master System Services, 709-C Randolph Ave., Costa Mesa 92626

Francis A. Mattocks, Television Signal Corp., 1902 Van Ness Ave., San Francisco 94109

Robert E. McKinley, Jr., Storer Cable TV, Inc., 2139 Laguna Canyon Rd., Laguna Beach 92651

William M. Miller, University of California, Television Services-Learning Resources, Santa Barbara, 93106

William J. Moore, Community Cablevision Co., 500 Newport Center Drive, Newport Beach 92660

Walter L. Mortimer, Finer Living, Inc., 1438 Sacramento St., Redding 96001

Ralph W. Nadeau, Vikoa, Inc., 2410 W. Carson, Torrence 90501

Gil B. Navarro, Westlake Communications, Inc., 960-10 Westlake Blvd., Westlake Village 91361

Ernest D. Nelligan, Jr., County TV Cable, 534 Laurel St., San Carlos 94070

Donn G. Nelson, Anaconda Electronics, 1430 S. Anaheim Blvd., Anaheim 92803

Maurice Olfman, Teleng, Inc., 405 Serrano Dr., San Francisco 94132

Nicholas Olson, Tele-Communications, Inc., 472 Wallace Ave., Valejo 94590

Robert L. Pace, Cable TV of Marin, Inc., P.O. Box 13, Pleasanton 94566

Murray Pasternack, Environmental Communications Inc., 221-B West Dyer Rd., Santa Ana 92707

John R. Penwell, Penwell Engineering Assoc., 104 Castle Court, Lafayette 94549

Paul Rebeles, T.R.W. Semiconductors, 14520 Aviation Blvd., Lawndale 90260

Gerald C. Rich, Rich Laboratories, Inc., 138 Fern St., Santa Cruz 95060

Ed Ries, Ed Ries & Assoc., 414 North Alfred St., Los Angeles 90048

Frank C. Roberts, Mono County Television Corp., P.O. Box 11, June Lake 93529

William F. Roberts, Farinon Electric, 935 Washington, San Carlos 94070

Gaylord Rogeness, Anaconda Electronics, 305 N. Muller, Anaheim 92801

John J. Santen, Jr., TelePrompter of Newark, 4570 Porter St., Fremont 94538

Eugene H. Schraut, Vari-Tronics, 975 W. First St., Azusa 91702

Claude W. Sell, Sunnyvale Cablevision, 1330 S. Mary Ave., Sunnyvale 94087

Michael L. Silacci, Gilroy Cable TV, 381 First St., Gilroy 95020

Martin R. Small, Storer Cable TV, Inc., 1 Storer Ave., P.O Box 1408, Thousand Oaks 91360

Arnold G. Soderlund, Pacific Telephone & Telegraph Co., 525 B St., P.O. Box 524, San Diego 92112

David A. Thomas, Western TV Cable, 116-A Starlite, So. San Francisco 94080

William R. Thompson, Cypress Communications Corp., 10880 Wilshire Blvd., Los Angeles 90024

Andrew Trentacosta, Nationwide Cable TV, 894 Industrial, San Carlos 94070

Charles R. Tyler, General Electronics Systems, Inc., 4150 Piedmont Ave., Oakland 94611

William A. Wagner, TelePrompter of Los Gatos, P.O. Box 429, Los Gatos 95030

Michael R. Weldon, Jerrold Electronics Corp., 1255 Veterans Blvd., Redwood City 94063

Arthur C. Williams, Southern Monterey County CATV, 1132 Broadway, King City 93930

Arie Zimmerman, Phasecom Corp., 6382 Arizona Circle, Los Angeles 90045

If your address on this list should be changed, please fill out form on bottom of page 30 and return to the SCTE.

CENTRAL ATLANTIC CHAPTER

Henry W. Adam, TelePrompter Corp., 50 West 44th St., New York, 10036

Scott A. Adams, Sterling Manhattan Cable TV, 43 West 61st St., New York, N.Y. 10023

John Arbuthnott, Times Wire & Cable Co., 358 Hall Ave., Wallingford, Ct. 06492

Vincent L. Bacchus, Vikoa Inc., 830 Monroe St., Hoboken, N.J.07030

Robert D. Bilodeau, 165 West End Ave., New York, N.Y. 10023

Steven I. Biro, B-RO Antenna & Head-End Engineering, P.O. Box 2175, Princeton, N.J. 08540

Gary L. Boot, TelePrompter of Newark, 134 Clinton Ave., Newark, N.J. 07114

Swapan K. Bose, TelePrompter of Newark, 134 Clinton Ave., Newark, N.J. 07114

Richard J. Brong, Garden Spot Cable Service, 1746 E. Chocolate Ave., Hershey, Pa. 17033

James Bruton, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Howard F. Buck, TelePrompter Manhattan Cable TV, 529 West 207th St., New York, N.Y. 10034

Clifford L. Bull, Suffolk Cablevision, 95 Brightside Ave., Central Islip, N.Y. 11722

Frank S. Butler, Sterling Manhattan Cable TV, 43 West 61st St., New York, N.Y. 10023

Frank J. Chiaino, Sterling Manhattan Cable TV, 43 West 61st St., New York, N.Y. 10023

Peter S. Chunka, Anaconda Electronics, 605 Third Ave., New York, N.Y. 10016

Quintino Cicchino, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Leonard G. Cohen, TelePrompter Manhattan CATV Corp., 529 West 207th St., New York, N.Y. 10034

Douglas S. Colborn, TelePrompter Cable TV, P.O. Box 208, Elmira, N.Y. 14902

Terry P. Crawford, Jerrold Electronics, 401 Walnut St., Philadelphia, Pa. 19105

Elmo E. Crump, Kay Elemetrics Corp., 12 Maple Ave., Pine Brook, N.J. 07058

Dean B. Cummings, Empire State Cable TV, Inc., 30 West State St., Binghamton, N.Y. 13901

James L. Dangremond, Sylvania Electric Products, Inc., 50 Johnston St., Seneca Falls, N.Y. 13148

Bernard Davis, TelePrompter County Cable TV, 581 Gramatan Ave., Mt. Vernon, N.Y. 10552

Lynn I. Decker, Suburban Cablevision, P.O. Box 206, Whippany, N.J. 07981

James T. Demetrius, TelePrompter Corp., 100 North Central Ave., Hartsdale, N.Y. 10530

Carlos L. Dodd, Applied Information Industries, 345 New Albany Rd., Moorestown, N.J. 08057

Joseph J. Dolan, Vikoa Inc., 400 9th St., Hoboken, N.J. 07030

Robert M. Doran, Sterling Manhattan Cable, 120 E. 23rd St., New York, N.Y. 10010

Stephen Dourdoufis, 417 Lafayette St., Cliffside Park, N.J. 07010

Donald Z. Dworkin, Vikoa Inc., 400 9th St., Hoboken, N.J. 07030

Semun A. Eddy, Jamestown Cablevision, Inc., 112 E. Third St., Jamestown, N.Y. 14701

Joseph B. Einsidler, Vikoa, Inc., 400 9th St., Hoboken, N.J. 07030

Howard H. Erichsen, Better TV of Dutchess County, Inc., Albany Post Rd., Hyde Park, N.Y. 12538

Alexander D. Ethier, Allband Cablevision, 111 E. Green St., Olean, N.Y. 14760

Dennis C. Evans, CATV of Elizabeth, 40 West Scott Place, Elizabeth, N.J. 07201

Ben Ferguson, Jr., Tri-County Cable TV, 93 Fifth St., Salem, N.J. 08079

Mac Ferguson, TeleVision Communications Corp., Suite 318 East Building, North Park Drive & Airport Hwy., Pennsauken, N.J. 08109

Ivan T. Frisch, Network Analysis Corp., Beechwood, Old Tappan Rd., Glen Cove, N.Y. 11542

Rex C. Forsyth, TelePrompter CATV, 345 Main St., Danbury, Ct. 06810

Gerald Goldman, TelePrompter Corp., 50 West 44th St., New York, N.Y. 10036

Elias N Gordon, Dolphin Communications, 181 Church St., Poughkeepsie, N.Y. 12601

William Grant, Jerrold Electronics Corp., 401 Walnut St., Philadelphia, Pa. 19105

Melvin Gray, Jerrold Electronics, 401 Walnut St., Philadelphia, Pa. 19105

Thomas J. Griffin, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Thomas R. Haskett, Broadcast Management/Engineering, 820 Second Ave., New York, N.Y. 10017

Doyle E. Hobbs, CATV Enterprises, 5923 Riverdale Ave., Bronx, N.Y. 10463

Richard P. Holdridge, Empire State Cable TV, 30 West State St., Binghamton, N.Y. 13902

Robert W. Hollis, Jerrold Electronics Corp., 401 Walnut St., Philadelphia, Pa. 19105

Edward D. Horowitz, TelePrompter Manhattan CATV Corp., 529 West 207th St., New York, N.Y. 10034

Charles W. Howlett, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Ivan Jackson, New Channels, 80 W. William St., Corning, N.Y. 14830

Stephen C. Jennings, Island Cable TV, 400 Main St., Islip, N. Y. 11751

Gethin Jones, Jr., TelePrompter of Newark, 134 Clinton Ave., Newark, N. J. 07114

R. Thomas Jones, Vikoa Inc., 830 Monroe St., Hoboken, N. J. 07030

Ira Kamen, Laser Link Corp., 303 Crossways Park Drive, Woodbury, N.Y. 11797

Irwin Kaplan, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Kenneth E. Landis, Jr., Jerrold Electronics, 401 Walnut St., Philadelphia, Pa. 19105

Selig Lenefsky, Vikoa, Inc., 400 9th St., Hoboken, N.J. 07030

Joseph Leto, Ringwood TV Cable Corp., 617 Ringwood Ave., Wanaque, N.J. 07465

If your address on this list should be changed, please fill out form on bottom of page 30 and return to the SCTE.

Douglas A. Light, TelePrompter Corp., 50 West 44th St., New York, N.Y. 10036

Edward T. Limbeck, 1006 Pleasant Drive, Millville, N.J. 08332

Fred Lose, Empire St. Cable TV, 30 West State St., Binghamton, N. Y. 13902

Joseph E. Maak, Vikoa Inc., 400 9th St., Hoboken, N.J. 07030

Rudolph W. Macak, IBM Corp., Box 390, Poughkeepsie, N.Y. 12602

Henry A. Magers, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Joseph J. Majczak, New Channels Corp., 224 W. Dominick St., Rome, N. Y. 13440

William S. Maner, Suffolk Cablevision, P.O. Box 347, Central Islip N.Y. 11722

Donald R. Manuel, Jerrold Electronics Corp., 401 Walnut St., Philadelphia, Pa. 19105

James L. Marino, Merrill Lynch, Pierce, Fenner & Smith - Video Center, 59 Maiden Lane, New York, N.Y. 10005

Carlton D. Martin, Suburban Cablevision, 2583 State St., Lowville, N. Y. 13367

Joseph B. Masterson, General Cable Corp., 236 W. First St., Bayonne, N.J. 07002

Gerald A. McFadden, Petra Cablevision, 185 Medford Ave., N. Patchogue, N.Y. 11772

Edward J. McGinty, Atlantic Coast TV Cable Corp., 3805 Ventnor Ave., Atlantic City, N.J. 08401

Edwin W. Miller, Walton Community Antenna System, Inc., 145 Delaware St., Walton, N.Y. 13856

Larry E. Nelson, Century Lighting, 3 Entin Road, Clifton, N.J. 07014

Vic Nicholson, Jerrold Electronics Corp., 401 Walnut St., Philadelphia, Pa. 19105

Robert J. Oltman, Cortland Video, Inc., 8 N. Main St., Cortland, N. Y. 13045

Joseph Ostuni, Craftsman Electronic Products, 133 W. Seneca St., Manlius, N.Y. 13104

John R. Ozminkowski, Rochester Telephone Corp., 3441 West Henrietta Rd., Rochester, N.Y. 14623

Piyush S. Parikh, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Horace F. Piersol, Video Components, Inc., 200 West 57th St., New York, N.Y. 10019

Fritz G. Popper, New Jersey Cable Network, Inc., 304 East State St., Trenton, N.J. 08608

Ed Pores, Bertram D. Aaron Co., Inc., 55 Northern Blvd., Greenvale, N.Y. 11548

Robert A. Powell, National Cable TV Systems, 2743 Dune Drive, Avalon, N.J. 08202

Earl Quam, Long Island Cablevision Corp., Route 58 & Osprey Ave., Box 1000, Riverhead, N.Y. 11901

Steven R. Raimondi, Brookhaven Cable TV, Inc., 1232 Middle Country Rd., Selden, N.Y. 11784

Schuyler A. Rennard, TelePrompter Corp., 4695 Main St., Bridgeport, Ct. 06606

Alex Ringwelski, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Evan G. Rischpater, Jr., People's Cable Corp., 3016 Monroe Ave., Rochester, N.Y. 14618

Charles Romano, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Rudolph E. Rosenberg, Jerrold Electronics Corp., 15th St. & Lehigh Ave., Philadelphia, Pa. 19132

Woodrow W. Rosson, TelePrompter Conn. CATV, 345 Main St., Danbury Ct. 06810

Carlo Sabbatini, Vikoa, Inc., 830 Monroe St., Hoboken, N.J. 07030

John Scarpa, National Cable TV Systems, 2743 Dune Drive, Avalon, N. J. 08360

Fred J. Schulz, Sterling Manhattan Cable TV, 43 West 61st St., New York, N. Y. 10023

Francis E. Scott, Vestal Video, Inc., 259 Vestal Parkway E., Vestal, N. Y. 13850

Walter J. Scott, Gateway Cablevision, 279 W. Main St., Amsterdam, N. Y. 12010

William B. Scott, Tele-Mark Communications, 1581D RT. 23, Wayne, N.J. 07470

Shawky Z. Sedaros, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Tom Shea, Shea Sales, 552 Prospect St., Maplewood, N.J. 07040

James R. Sliwa, TelePrompter Corp., 50 West 44th St., New York, N.Y. 10036

Charles D. Snider, Sterling Manhattan Cable TV, 120 West 23rd St., New York, N.Y. 10010

Frank J. Stallone, B-RO Antenna Head-End Engineering, Box 2175, Princeton, N.J. 08540

James A. Streevy, Empire State Cable TV, 30 W. State St., Binghamton, N.Y. 13902

Danny Tang, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Joseph Tapley, TelePrompter of Newark, 134 Clinton Ave., Newark, N.J. 07114

Anthony A. Taylor, Vikoa Inc., 830 Monroe St., Hoboken, N.J. 07030

Robert C. Tenten, Sterling Communications, 120 E. 23rd St., New York, N.Y. 10010

Charles S. Tepfer, Cablecasting Magazine, 607 Main St., Ridgefield, Ct., 06877

Ray Thibodeau, Valley Cablevision, P.O. Box 270, Canajoharie, N.Y. 13317

Ralph Toscano, Rochester Telephone Co., 111 Field St., Rochester, N.Y. 14620

James L. Turner, N. Y. Telephone Co., 501 No. Ocean Ave. Patchogue, N.Y. 11772

William W. Van Nuys, Box 504, Oneonta, N.Y. 13820

Joseph H. Vogelman, Laser Link Corp., 303 Crossways Park Dr., Woodbury, N. Y. 11797

Thomas J. Walker, TelePrompter of Newark, 134 Clinton Ave., Newark, N.J. 07114

Robert G. Watson, TelePrompter Manhattan Cable TV, 529 West 207th St., New York, N.Y. 10034

Richard E. Welch, Communication Systems, Inc., 140 E. Main St., Huntington, N.Y. 11743

Dale A. Wheeler, Rochester Telephone Co., 3441 West Henrietta Road, Rochester, N.Y. 14623

Williard J. Wilmot, Belden Corp., 28 Upper Ritie St., Piermont, N.Y. 10968

Roger G. Wilson, TelePrompter Corp., 50 West 44th St., New York, N.Y. 10036

Richard L. Winters, Vikoa Inc., 400 9th St., Hoboken, N.J. 07030

William V. Woodruff, 3 Way Comm. T.V. Assoc., 48 Dyke St., Andover, N.Y. 14806

Donald E. Zimmermann, Middlesex CableVision, Inc., P.O. 237, 44 Milltown Rd., East Brunswick, N.J. 08816

If your address on this list should be changed, please fill out form on bottom of page 30 and return to the SCTE.

HAWAII CHAPTER

Delmar W. Carter, Hawaiian Cable Vision Corp., P.O. Box 758, Wahiawa 96786

Felix N. Giso, Television Audio Systems, 547 Hale Kavwila St., Honolulu 96813

Robert P. Giso, Hawaiian Cable Vision Corp., P.O. Box 427, Lehaina 96761

Charles J. Hartman, Western Telestations, Inc., 1290 Ala Moana, Honolulu 96814

Gene Piety, Cablevision Inc., P.O. Box 677, 87-680 Harrington Hwy., Waianae 96792

Bernard W. Rowe, Derby Cablevision, P.O. Box 278, Kapaa 96746

H. Allen Smith, Kaiser TelePrompter of Hawaii Inc., P.O. Box 7608, Honolulu 96821

Alfred J. Zimmermann, Comtec Inc., P.O. Box 747, Hilo 96720

NEW ENGLAND CHAPTER

Richard Blais, Paper City TV Cable, 215 Main St., Berlin, N.H. 03570

Rex C.S. Chien, M. I. T. Lincoln Labs, Lexington, Ma. 02140

Donald B. Fairbrother, Sanders Associates Inc., Daniel Webster Highway South, Nashua, N.H. 03060

John A. Fergie, Springfield TV Broadcasting Corp., P.O. Box 2210, Springfield, Ma. 01101

Albert K. Fowler, R F Systems, Inc., 155 King St., Cohasset, Ma. 02025

John J. Guachione, Pittsfield/Dalton TV Cable, 301 North St., Pittsfield, Ma. 01201

David E. Karrmann, Karrmann Assoc., Inc., Church Plaza, 129 Highland Ave., Chesire, Ct. 06410

Anthony S. Katona, Northwest Cablevision Inc., 110 Main St., Winsted, Ct. 06098

John J. Kelleher, III, New England Telephone Co., 185 Franklin St., Rm. B-11-L, Boston, Ma. 02107

J. J. Mueller, EMCO CATV, Inc., P.O. Box 646, Manchester, Vt. 05254

Scott A. Ricci, Chesterfield Cablevision, Inc., P.O. Box 213, Spofford, N.H. 03462

William M. Ruiz, Jerrold Electronics, 17 Sutton Pl., Agawam, Ma. 01001

Richard K. Schroeder, New England Tel. & Tel. Co., Room 300, 260 Summer St., Boston, Ma. 02210

Samuel A. Shearer, Cox Cablevision, 192 College St., Burlington, Vt. 05401

Melvyn E. Shlank, Community TV Systems, Inc., 1326 Whalley Ave., P.O. Box 3023, New Haven, Ct. 06515

Llloyd Tate, Community Management Corp., 6 Vista Way, Merrimack, N.H. 03054

NORTH CENTRAL CHAPTER

Ronald A. Arbisi, Television Transmission Co., 301 Peru St., Peru, Il. 61354

Richard Ashpole, Quincy Cablevision, Inc., 116 North Fifth St., Quincy, Il. 62301

G. E. Baldwin, Lake Charlevoix Cable TV, Inc., 202 State St., Charlevoix, Mi. 49720

Don Bertling, Valley Antenna Systems, 1625 Covington Ave., Piqua, Oh. 45356

Cliff Beyersdoerfer, 1905 Warren St., Marion, Ill. 62959

Chas. E. Birkett, Cox Cablevision, 1307 Columbus, Wabash, In. 46992

Peter C. L. Boyce, Boyce Service Co., 604 Navajo Drive, New Albany, In. 47150

Robert A. Brooks, J. C. Barnard & Associates, 10121 Manchester Rd., St. Louis, Mo. 63122

Donald L. Brown, Cable Communications of Iowa, Inc., 57 South Court St., Fairfield, Ia. 52556

Everett L. Burrows, Wisconsin CATV Inc., 415 S. Barstow St., Eau Claire, Wi. 54701

T. G. Cady, Keokuk Cablevision, 409 Main St., Keokuk, Ia. 52632

James Camsky, Wheeling Antenna Co., P.O. Box 1043, Wheeling, W.V. 26003

Michael E. Charchenko, G-F Cable TV, 414 N. Washington, Grand Forks, N.D. 58201

David W. Chase, Spencer Community Antenna System, Inc., 313 Grand Ave., Spencer, Ia. 51301

Donald E. Clark, Logansport TV Cable, 214 South 6th St., Logansport, In. 46947

Don Countryman, D. F. Countryman Co., 1821 University Ave., St. Paul, Mn. 55104

G. W. Cummins, Full Vu Television, 1029 North 4th St., Vincennes, In. 47591

Buell Daniel, Allegan Tele-Ception Inc., 114 Locust St., Allegan, Mi. 49010

W. Dean Davis, El Dorado Springs Cable TV, Inc., 105 East Spring St., El Dorado Springs, Mo. 64744

Harry G. Dawson, Jacksonville Cable T.V. Co., Lincoln Square, Jacksonville, Il. 62650

D. R. Deveraux, LVO Cable, 715 S. Oakcrest, Casper, Wy. 82601

G. Alfred Dodds, Applied Video Electronics, Inc. 4936 Caroline Drive, Cleveland, Oh. 44128

Earl W. Drake, Arrow Electronics & Construction Co., 1610 West Main St., Kalamazoo, Mi. 49007

Leslie E. Eakins, Tower Communications Inc., 811 South 3rd St., Ironton, Oh. 45638

William H. Ellis, Jr., Telesis Corp., 1253 Diamond Ave., Evansville, In. 47727

Leo A. Engleman, Television Transmission Co., 301 Peru St., Peru, Il. 61354

E. Lee Erickson, Beloit Cable TV, 437 E. Grand Ave., Beloit, Wi. 53511

Lewis R. Fitch, Tower Communications, Inc., 617 Tuscarawas Ave. N.W., New Philadelphia, Oh. 44663

James Fitzpatrick, GRC TV, 425 Watt St., Jeffersonville, In. 47130

Paul E. Flatt, North Central Electronic System, 9912 Elliot Ave., So., Bloomington, Mn. 55420

Jake G. Frickel, Lincoln Tel, & Tel. Co., 1440 M St., Lincoln, Ne. 68501

Douglas B. Fuller, St. Joseph Cablevision, 716 Francis St., St. Joseph, Mo. 64501

Wallace L. Gake, Lincoln Tel. & Tel. Co., 1440 M St., Lincoln, Ne. 68501

Marvin Gill, Sullivan Cable Systems, 2409 Broadway, Mt. Vernon, Il. 62864

If your address on this list should be changed, please fill out form on bottom of page 30 **and return to the SCTE.**

John Gort, Midcontinent Cable Systems Co., 501 S. Phillips Ave., Sioux Falls, S.D. 57102

Omer K. Griesemer, Sullivan Cable TV, 311 Whittle Ave., Olney, Ill. 62450

Wilbur G. Hardman, Tower Communications Inc., 111 E. 2nd St., Waverly, Oh. 45690

Ted E. Hartson, Wolverine Cablevision, 357 West Columbia Ave., Battle Creek, Mi. 49015

Dexter A. Hawkins, Jr., GT & E Communications Inc., Public Square, Angola, In. 46703

Harold Hay, Telesystems Corp., 22 E. 3rd St., Peru, In. 46970

Claude M. Holiday, Jerrold Electronics Corp., 6637 Blackstone Dr., Downers Grove, Il. 60515

John Hollenback, Cox Cable Comm., Inc., 2511 Hawthorne Dr., Bettendorf, Ia. 52722

Charles R. Howard, Hill City, Stockton, Phillipsburg & Dimmitt TV Cable Co., Inc., P.O. Box 177, Hill City, Ks. 67642

Jay K. Hubbell, Anaconda Electronics, Box 245, Wilmington, Il. 60481

Joe E. Hunzeker, Iowa Transmission Co., 720 Broadway, Denzson, Ia. 51442

Frank L. Hurst, Centerville Cablevision, 317½ No. 13th St., Centerville, Ia. 52544

J. E. Hyde, KDHL, 601 Central Ave., Faribault, Mn. 55021

Robert N. Jacobson, Sweetwater TV, P.O. Box 8, Rock Springs, Wy. 82901

Don W. Johnson, Lake Land Cablevision, P.O. Box 375, Detroit Lakes, Mn. 56501

Floyd C. Johnson, General Telephone Co. of Ohio, 100 Executive Drive, Marion, Oh. 43302

Robert W. Johnson, H & B American Cablevision Co., 205 E. Ludington St., Iron Mountain, Mi. 49801

Gary L. Kelley, Sullivan Cablevision, 235 S. Locust, Centralia, Il. 62801

Jerry M. Kittelson, T.V. Signal Co., 210 S. Lincoln, Aberdeen, S. D. 57401

Richard M. Klin, 102 Lyndale, Hamilton, Mt. 59840

Paul F. Knox, G-F Cable TV Inc., P.O. Box 1683, Grand Forks, N.D. 58201

Arthur J. Kraus, Rockdale & Seneca Cable TV, 471 N. Scott, Joliet, Il. 60432

Don Latimer, Monroe All-Channel Cablevision, Inc., 617 W. 17th St., Bloomington, In. 47401

William J. Lichtenberg, Mid American Cable Systems, Inc., 226 S. Kansas Ave., Olathe, Ks. 66061

Edward G. Mattox, American Television & Communications Corp., 716 South 33rd St., Parsons, Ks. 67357

Richard S. McDonald, G-F Cable TV, Inc., 414 N. Washington, Grand Forks, N.D. 58201

Luther D. McDyer, Fetzer Cablevision, 590 W. Maple St., Kalamazoo, Mi. 49001

C. L. McHolland, Clouds Peak Radio & TV Corp., 140 East Loucks St., Sheridan, Wy. 82801

Virgil Mehus, Valley Video Systems, Inc., 207 E. Cedar St., Houston, Mn. 55943

George R. Meyer, Minnesota CATV, Inc., 228 So. Front St., Mankato, Mn. 56001

Maynard Miller, Hollywood TV, 5626 W. Fort, Detroit, Mi. 48209

Charles F. Millspaugh, Continental Transmission Corp., P.O. Box-728, Dekalb, Il . 60115

Charles C. Moody, Jerrold Electronics Corp., 13225 Highview Drive, Burnsville, Mn. 55378

Lester H. Nafzger, Telecommunications, 85 East Gay St., Columbus, Oh. 43215

Wilbur L. Newman, Shardco Cablevision, Inc., 120 West Auglaize St., Wapakoneta, Oh. 45895

William E. Norton, TelePrompter of Liberal, 25 West 3rd St., Liberal, Ks. 67901

Charles F. Nydegger, Crawfordsville Community Cable Corp., 122 S. Washington St., Crawfordsville, In. 47933

Eldon W. Palasek, Telesis Inc., 523 North Custer Ave., Grand Island, Ne. 68801

Loyal C. Park, TV Transmission Inc. 2047 M St., Lincoln, Ne. 68501

Myron T. Pattison, Crawfordsville Community Cable Corp., 122 S. Washington St., Crawfordsville, In. 47933

Richard D. Penn, Telesystem Corp., 129 S. Wabash St., Wabash, In. 46992

Floyd R. Porter, Times Wire & Cable, 1334 Atlantic, N. Kansas City, Mo. 64116

Charles W. Preston, Communications Services, Inc., & Junction City Broadcasting Co., Inc., P.O. Box 789, Junction City, Ks. 66441

Richard E. Ramme, Kankakee TV Cable Co., 150 South Dearborn Ave., Kankakee, Il. 60901

Thomas R. Ridley, Arrow Electronics, 303 North Ohio St., Fremont, Oh. 43420

Stanley D. Rischman, Jerrold Electronics Corp., 9201 Moody Park Dr., Overland Park, Ks. 66212

Clarence E. Ross, Midway Cable TV, 1413 Minnesota Ave., Kansas City, Ks. 66102

George E. Rotsart, Television Transmission Co., 301 Peru St., Peru, Il. 61354

Leroy E. Savage, Automatic Electric Co., P.O. Box 42, Northlake, Il. 60164

Ralph E. Scales, Bedford TV Cable Co., 1124 16th St., Bedford, In. 47421

Roy E. Schlarb, Quaker CATV, Inc., 427 E. State St., Salem Oh. 44460

Arthur D. Sterling, Visual Educom Inc., 4333 S. Ohio St., Michigan City, In. 46360

Stephen H. Swarny, Tower Communications, Inc., 617 Tuscarawas Ave. N.W. , New Philadelphia, Oh. 44663

Nichole A. Tarraferro, Nick's TV & Appliance, 837 Peach St., Lincoln, Ne. 68502

Bill R. Thomison, Spencer-Kennedy Lab., Inc., 120 Hackberry, Independence, Ks. 67301

Herbert R. Timberlake, Greater Lafayette TV Cable Co., 602 52 By Pass, Lafayette, In. 47904

Howard W. Town, WTTW-TV, 5400 N. St. Louis Ave., Chicago, Il. 60625

Ivan L. Tucker, Hamilton Cable Communications, 220 South Monument Ave., Hamilton, Oh. 45011

If your address on this list should be changed, please fill out form on bottom of page 30 **and return to the SCTE.**

Gailin L. Vaughn, Vikoa, 424 Dieckman St., Vandalia, Il. 62471

Henry L. Weinmeister, Jr., Western C.T.V.C. Inc., 1210 Schmidt Dr., Scottsbluff, Ne. 69361

Edmund A. Williams, Television, Ohio University, Athens, Oh. 45701

Thomas M. Williams, Dixon Cable TV, 324 W. First St., Dixon, Il. 61021

David F. Winter, Television Transmission Co., 301 Peru St., Peru, Il. 61354

James B. Wright, Television Transmission Co., 301 Peru St., Peru, Il. 61354

Norman E. Wright, Northwest Illinois TV Cable Co., 561 No. Henderson St., Galesburg, Il. 61401

Russell R. Zimmermann, Sullivan Cablevision, 235 So. Locust St., Centralia, Il. 62801

William L. Zirhut, Imperial Broadcasting Co. Inc., 1815 Cleveland Ave. N.W., Canton, Oh. 44709

PACIFIC NORTHWEST CHAPTER

Sam Boyd, Cableview of Selah, P.O. Box 57, Selah, Wa. 98942

Jerry O. Bybee, Community Telecable of Seattle Inc., 1416 NW 85th St., Seattle, Wa. 98107

Paul E. Case, Yaquina TV Cable Co., P.O. Box 95, Newport, Or. 97365

James B. Dyer, Tillamook Television Inc., P.O. Box 485, Tillamook, Or. 97141

William D. Elkins, Liberty Television Inc. 2225 Coburg Road, Eugene, Or. 97401

Alfred D. Fagan, Sweet Home TV Cable, P.O. Box 452, Sweet Home, Or. 97386

Billy A. Golden, Golden Electronics Inc., P.O. Box 266, Sun-River, Or. 97701

Rodney L. Gregg, Rowan's TV Inc., 790 5th St., Madras, Or. 97741

John A. Hartrick, Southern Oregon Cable TV, P.O. Box 1227, Grants Pass, Or. 97526

Donald T. Hostetler, Corvallis TV Cable Co., P.O. Box T, Corvallis, Or. 97330

Harley D. Lester, TelePrompter of Portland, 10003 N.E. Sandy Blvd., P.O. Box 20488, Portland, Or. 97220

Robert O. Logan, McKenzie River TV Cable Co., Inc., McKenzie Hwy., Leaburg, Or. 97401

Aubrey P. Montgomery, Touchet Valley TV Cable, 352 E. Main, Dayton, Wa. 99328

Tom Pankella, Lebanon TV Cable Co., 48 West Oak, Lebanon, Or. 97355

Walter H. Prichard, Jr., Corvallis TV Cable Co., P.O. Box T, Corvallis, Or. 97330

James P. Rowan, Rowan's TV Inc., 790 5th St., Madras, Or. 97741

Carl W. Schefsky, University of Portland, 5000 N. Willamette Blvd., Portland, Or. 97203

Hilmer T. Taxdahl, Taxdahl CATV Engineering Services, 21617 88th Ave. West, Edmonds, Wa. 98020

Robert P. Veness, Cable Colorvision, Inc., P.O. Box F, Issaquah, Wa. 98027

Robert G. Wheadon, Bay TV, 250 S. 2nd., Coos Bay, Or. 97420

Keneth Youngren, Northwest Cablevision, 206 S.W. 112th St., Seattle, Wa. 98146

PENNSYLVANIA CHAPTER

Carl E. Barry, Eastern Telecom, 700 Seco Road, Monroeville, 15146

Patrick A. Bartol, Laser Link Corp., 303 Crossways Drive, Woodbury, N.Y. 11797

William R. Brown, Lawrence Cablevision, Inc., 123 No. Mill St., New Castle, 16101

Ralph L. Burdick, Recreation Consultants, Inc., 206 Runnymede Ave., Jenkintown 19046

Lawrence F. Comfort, Westmoreland Cable Co., 890 Constitution Blvd., New Kensington 15068

Fredric B. Gilbert, Cable Associates Inc., 30 South Queen St., Lancaster 17603

R. R. Hosey, Hawley TV Service Co., 74 East Main St., Plymouth 18561

Lawrence Kaczmarczyk, R.R. 1, Box 260, Ringtown 17967

John F. Kelly, Jr., Westmoreland Cable Co., 890 Constitution Blvd., New Kensington 15068

Edward Linnen, Pittston Area School District, 5 Stout St., Pittston 18640

Paul E. Mattern, P.O. Box 685, Pine Bush, N.Y. 12566

James H. Peters, Lower Bucks Cablevision, 4211 Wistar Rd., Levittown 19056

Charles C. Royer, Susquehanna Valley TV, 106 Bellefonte Ave., Lock Haven 17745

Charles T. Saporito, Warren TV, P.O. Box 647, Warren 16365

Lewis D. Suders, Westmoreland Cable Co., 890 Constitution Blvd., New Kensington 15068

John P. Thomas, Solid State Scientific, Montgomeryville 18936

John S. Warner, Service Electric Cable TV, Haven Fair Lawn RD No. 3, Pottsville 17901

Joseph A. Zettick, Lower Bucks Cablevision, 4211 Wistar Rd., Levittown 19056

John D. Zimmerman, Zimmerman's Electronics Service Co., Box 203, Six Mile Run 16679

SOUTH ATLANTIC CHAPTER

Ted F. Akins, Jefferson-Carolina Corp., P.O. Drawer E-1, Greensboro, N.C. 27402

James H. Altman, Cox Cablevision, 710 E. Silver Springs Blvd., Ocala, Fl. 32670

Barry D. Ankeny, Orange Cablevision ATC, 90 E. Livingston, Suite 210, Orlando. Fl. 32801

Charles H. Bailey, Jr., P.O. Box 181, Cascade, Md. 21719

Robert A. Bevis, Communicable, P.O. Box U, Cocoa Beach, Fl. 32931

Warren L. Braun, Warren L. Braun Consulting Engrs., P.O. Box 1106, Harrisonburg, Va. 22801

Austin S. Coryell, Orange Cablevision, 231 E. Colonial Dr., Orlando, Fl. 32801

Alic C. Davy, Community Communications System, Inc., P.O. Box 2523, Baltimore, Md. 21215

If your address on this list should be changed, please fill out form on bottom of page 30 and return to the SCTE.

How to put your local merchants on the spot.

With color film, you can put the townspeople to work for you. Simply take your camera and shoot a commercial at Lou's Laundry, Bill's Bakery, or Pete's Pets. The merchants get their message across while you get to defray your expenses and make some money in the bargain.

Film is flexible and portable so it's the ideal medium for local origination: news, elections, sports, parades... all featuring local people.

We'd like to send you our new publication VIDEOfilm NOTES. Each issue contains new ways to use film in your business. If you're not already receiving it, please send your name, address and zip to Dept. 640, Eastman Kodak Company, Rochester, New York 14650.

Kodak

EASTMAN KODAK COMPANY

Atlanta: 404/351-6510; Chicago: 312/654-5300; Dallas: 214/351-3221; Hollywood: 213/464-6131; New York: 212/262-7100; San Francisco: 415/776-6055.

film

Carmine D'Elio, General Electric, Mountain View Road, Lynchburg, Va. 24502

Julian Dendy, Jerrold Electronics, P.O. Box 20617, St. Petersburg, Fl. 33742

Marvin F. Dilbeck, The T M Communications Co. of Florida, 1111 N. West Shore Blvd., Suite 700, Tampa, Fl. 33607

Joseph D. Dugas, TelePrompter Cable TV, P.O. Box 1268, Brandon, Fl. 33511

Virgil D. Duncan, 1908 Ridge Rd., Raleigh, N.C. 27607

Harold D. Edwards, Jr., Georgia Cablevision Corp., 1601 W. Peachtree, Atlanta, Ga. 30309

David A. Evans, Lake County Cablevision, P.O. Box 1332, Leesburg, Fl. 32748

Clifford A. Fields, LVO Cable, Inc., 8 Pitts St., Berlin, Md. 21811

George Fishman, General Electric, P.O. Box 4096, Lynchburg, Va. 24502

Donald H. Fissel, Suburban Cablevision, 163 E. Davis St., Culpepper, Va. 22701

Randall P. Fraley, Fayetteville Cablevision, P.O. Box 3667, Fayetteville, N.C. 28305

Robert O. Frier, Highlands Cable TV, P.O. Box 229, Sebring, Fl. 33870

Harry D. Gray, Gracomp, Inc., P.O. Box 10366, Jacksonville, Fl. 32207

Kenneth D. Grinols, Sharer Inc. CATV Div., 5354 Calle Florida, Sarasota, Fl. 33581

James H. Hall, Sarasota Central Antenna Network, 1549 State St., Sarasota, Fl. 33578

Dole E. Hobbs, T M Communication Co. of Florida, 1111 N. West Shore Blvd., Suite 701, Tampa, Fl. 33607

Earl S. Houseknecht, TV Cable Co. of Ft. Walton Beach, P.O. Box 1328, Ft. Walton Beach, Fl. 32548

Richard G. Hudnet, T M Communications Co. of Florida, 1111 N. West Shore Blvd., Suite 701, Tampa, Fl. 33607

Roy Jacobi, Superior Continental Corp., P.O. Box 489, Hickory, N.C. 28601

James R. Jenkins, Lower Delaware CATV, Church St., P.O. Box 282, Selbyville, De. 19975

Vernon W. Jines, CableVue of Englewood, 1249 Beach Rd., Englewood, Fl. 33533

George S. Jones, General Television, Inc., 220 East Main St., Salisbury, Md. 21801

Wayne Lee, TelePrompter Cable TV, 1611 Berkshire Dr., Brandon, Fl. 33511

Donald W. Levenson, Wheeling Antenna Co., Inc., 1148 Water St., Wheeling, W.V. 26003

Dewayne Lipp, Superior Electronics Center, 2010 Pine Terrace, Sarasota, Fl. 33581

Chuck Locke, Perry Cable Television Co., 10435 Ironwood St., Palm Beach Gardens, Fl. 33403

S. Kent MacNown, Leghorn Corp., 2201 14th Street West, Bradenton, Fl. 33505

John P. Moore, Grand Bahama CATV Ltd., Queens Cove, P.O. Box 443, Freeport, Bahamas

Kenneth W. Morris, Midstate Cable TV Co., P.O. Box 576, Hawkinsville, Ga. 31036

Harold R. Null, Storer Cable TV of Florida, P.O. Box 15405, Sarasota, Fl. 33579

Kenneth W. Parnell, Cox Cablevision, 710 E. Silver Springs Blvd., Ocala, Fl. 32670

David A. Purcell, Jr., TeleCable Corp., 150 W. Brambleton Ave., Norfolk, Va. 23501

Robert L. Rausch, Southern Cablevision, Inc., P.O. Box 1360, Fort Myers, Fl. 33902

Robert H. Reed, Cablevision of Virginia, Inc., 356 W. Main, Covington, Va. 24426

Robert W. Robbins, Port Arthur Cabevision, 28 Yacht Club Dr., North Palm Beach, Fl. 33403

E. Mark Russell, TelePrompter Gulf Coast Engineering, 3375 34th St. N., Suite 109, St. Petersburg, Fl. 33713

William H. Smallwood, Cable-Vue of Nokomis, P.O. Box 128, Nokomis, Fl. 33555

Gary H. Smith, Kaiser CATV, 1121 Sparkman, Eau Gallie, Fl. 32935

Haracharan S. Suri, 506 Horseman Dr., Lynchburg, Va. 24502

Larry D. Sutter, WESH-TV, 1501 Minn. Ave., Winter Park, Fl. 32789

Daniel W. Tennant, American Calbevision, 217 Fairmont Ave., Fairmont, W. V.. 26555

Roy A. Tester, Comm/Scope Corp, P.O. Box 602, Connally Springs, N.C. 28612

Winton Teston, Television Div., U.S.A. Southeastern Signal School, Fort Gordon, Ga. 30905

James C. Tuggle, Jackson Communications, Rt. 3, Box 16-A, St. Augustine, Fl. 32084

Bruce L. Uerling, Jefferson-Carolina Corp., Drawer E-1, Greensboro, N.C. 27402

Walter O. Welch, South Florida Cable TV Corp., 5689 Estero Blvd., Fort Myers Beach, Fl. 33931

George R. Wilkes, Gainesville Cablevision, P.O. Box 10, Gainesville, Ga. 30501

Lloyd A. Williams, TelePrompter, 1833 Willis Mill Rd., Atlanta, Ga. 30311

Jesse M. Williford, Cable-Vue of Englewood, 1249 Beach Rd., Englewood, Fl. 33533

SOUTH CENTRAL - EAST CHAPTER

Ray W. Baughn, Telvue Cable Alabama, 1952 Greenvale Rd., Birmingham, Al. 35226

Roy Beasley, West Alabama TV Cable Co., P.O. Box 615, Hamilton, Al. 35570

Dwight L. Brown, Brown Radio & TV, Liberty St., Barbourville, Ky. 40906

James R. Collins, Jr., Ameco, Inc., 1603 Sun Valley Rd., S.W., Huntsville, Al. 35801

David A. Decker, Correct Cable Constructors, Inc., 1 Windsor Dr., Tuscaloosa, Al. 35401

Rubin W. Fensterbush, Brookhaven Cablevision, Monticello St., Brookhaven, Ms. 39601

Leon V. Hance, Jerrold Electronics Corp., P.O. Box 223, Elberta, Al. 36531

D.G. Killingsworth, Dothan Cable TV, 509 C South Oates, Dothan, Al. 36531

Paul W. McInnish, Service Associates, 3519 Rosedale Dr. N.W., Huntsville, Al. 35810

If your address on this list should be changed, please fill out form on bottom of page 30 and return to the SCTE.

Travis B. Nabors, Columbus TV Cable Corp., P.O. Box 583, Columbus, Ms. 39701

Howard M. Norrell, Consolidated TV Cable Service, Inc., 323 Ann St., Frankfort, Ky. 40601

Robert G. Parsons, Cypress Communications, 235 E. Charlemont St., Kingsport, Tn. 37660

Richard E. Reynolds, Jerrold Electronics Corp., P.O. Box 263, Dandridge, Tn. 37725

William Risden, Cumberland Television Inc., 114 Myers St., Cumberland, Ky. 40823

Charles R. Solomon, Pulaski Cable TV, P.O. Box 352, Pulaski, Tn. 38478

Milton F. Underwood, American Cablevision, 121 S. Court St., Florence, Al. 35630

Harry E. Waller, Walco, Inc., P.O. Box 486, Bruce, Ms. 38915

Charles M. Willis, Dothan Cable TV, 509 C South Oates, Dothan, Al. 36301

SOUTH CENTRAL - WEST CHAPTER

Ferrell M. Anderson, TOCOM, Inc., P.O. Box 47066, Dallas, Tx. 75247

James K. Atkinson, Continental Transmission Corp., 507 West Main St., Russellville, Ar. 72801

Bill W. Barnes, Television Cable Co., P.O. Box 517, DeQueen, Ar. 71832

Lacy E. Breeden III, McNeese State University, P.O. Box 14B, Lake Charles, La. 70601

Phillip E. Brinson, Jr., National Trans-Video, 403 S. Akard St., Dallas, Tx. 75202

Con L. Case, National Trans-Video, 403 S. Akard St., Dallas, Tx. 75202

M.E. Case, El Dorado Cablevision, P.O. Box 169, El Dorado, Ar. 71730

Henry F. Cicconi, Valley Cable TV, 405 Westway, McAllen, Tx. 78501

Lee S. Cowan, Television Cable Service Co., Inc., 222 North Broadway, Tyler, Tx. 75701

Michael Cullen, TV Cable of Waco, 4700 Bosque, Waco, Tx. 76710

Monty Dees, Tel Star TV Cable, P.O. Box 10, Marietta, Ok. 73448

Gary A. Dent, Scientific Atlanta, Suite 905, Frito-Lay Tower, Dallas, Tx. 75235

Edward E. Drake, LVO Cable, Inc., P.O. Box 3423, Tulsa, Ok. 74101

George R. Gunter, Vikoa Sales Corp., 3838 Cavalier Dr., Garland, Tx. 75042

Kenneth S. Gunter, Columbia Cable Systems, Inc., 26 West Concho, San Angelo, Tx. 76901

Henry C. Hagene, Port Arthur Cablevision, P.O. Box 2031, Port Arthur, Tx. 77640

Robert H. Head, Apollo Cablevision Corp., P.O. Box 354, Deport, Tx. 75435

A.J. Henry, Jr., Community Cable Corp., P.O. Drawer 100, Hoxie, Ar. 72433

A.K. (Bill) Hutchison, TV Signal Service Co., Drawer 610, Paducah, Tx. 79248

Herbert L. Jackson, Commco Inc., 804 Brown Bldg., Austin, Tx 78701

Charles W. Jenkins, Cablevision of Waco, 4700 Bosque, Waco, Tx. 76710

William F. Karnes, National Trans-Video, 403 S. Akard St., Dallas, Tx. 75202

Roger B. Kennedy, Continental Transmission Corp., 403 N. Bailey, Mexia, Tx. 76667

J.H. Landrum, Commco, Inc., 802 Brown Bldg., Austin, Tx. 78701

Richard L. Luthans, Richard L. Luthans & Assoc., P.O. Box 313, Richardson, Tx. 75080

Ronald L. Marnell, Bartlesville Video Inc., P.O. Box 1103, Bartlesville, Ok. 74003

Dale J. Mathis, Communications Properties, Inc., P.O. Box 889, Colorado City, Tx. 79512

Joseph F. Matte, TelePrompter of Leesville, Inc., 210 So. Third St., Leesville, La. 71461

Wayne J. McKinney, Texas Community Antennas, 3027 SE Loop 323, Tyler, Tx. 75701

Merwin M. Milliken, Jr., Jerrold Electronics Corp., 332 Rosewood Dr., Norman, Ok. 73069

Glen T. Mixon, Diversified Communication Investors, Inc., 911 Austin St., Levelland, Tx. 79336

James E. Moore, Jr., Mid-Texas Telephone Co., Killeen, Tx. 76541

Merlyn L. Neel, Muleshoe Antenna Co., 220 W. 2nd, Muleshoe, Tx. 79347

Gilbert M. Olquin, Great Plains Cable TV Co., P.O. Box 949, Perryton, Tx. 79070

Par G. Peterson, TelePrompter, Inc., 10328 Blackwood, El Paso, Tx. 79925

Jimmy A. Rath, Fidelty Cables Inc., 124 E. Blackwell Ave., Blackwell, Ok. 74631

Ron Saling, Continental Transmission Corp., P.O. Box 7; Mexia, Tx. 76667

Jack F. Sanders, Tru-Vu, Inc., 300 Fillmore St., Denver, Co. 80206

Harvey A. Sauter, Scientific Atlanta, Inc., Suite 905, Frito-Lay Tower, Dallas, Tx. 75235

Kenneth D. Schuelein, TV Cable of Elk City, 210 N. Oklahoma, Elk City, Ok. 73644

S.L. Spencer, EDESCO, P.O. Box 805, Richardson, Tx. 75080

Warren W. Steddum, Pampa Cable TV, 1423 N. Hobart, P.O. Box 2373, Pampa, Tx. 79065

Fred E. Stone, UA Cablevision, Inc., 314 S. Harwood, Dallas, Tx. 75201

Charles E. Swehla, Continental Transmission Corp., P.O. Box 7, Mexia, Tx. 76667

Dale W. Taylor, KZTV, Show Room Bldg., Corpus Christi, Tx. 78401

Robert L. Taylor, Robert L. Taylor & Assoc., P.O. 1037, Richardson, Tx. 75080

Jack M. Threadgill, Community Cablevision Corp., P.O. Box 152, Bryon, Tx. 77801

Dwayne A. Vargeson, New Iberia Cablevision, Inc., P.O. Box 1166, New Iberia, La. 70560

Leslie Veach, Cablecom-General, Inc., P.O. Box 631, Mangum, Ok. 73554

Art Whitaker, Vikoa, Inc., 3838 Cavalier, Garland, Tx. 75040

If your address on this list should be changed, please fill out form on bottom of page 30 and return to the SCTE.

Reginald F. White, Great Plains Community TV Co., P.O. Box 949, Perryton, Tx. 79070

Norman A. Williams, Cablevision, 2716 N. 7th St., West Monroe, La. 71291

Scott Witcher, Jr., Telephone Utilities Services Co., Drawer 1150, Killeen, Tx. 76541

SOUTHWEST CHAPTER

Edward J. Callahan, Jr., American Television & Communications Corp., 300 Fillmore St., Denver, Co. 80206

James F. Collins, American Television & Communications Corp., 300 Fillmore St., Denver, Co. 80206

Jim J. Devereaux, Santa Fe Cablevision, P.O. Box 5354, Santa Fe, N.M. 87501

David M. Henkel, Willcox Cable TV, P.O. Box 757, Willcox, Az. 85643

Arvill F. Johnson, Community Antenna Co., P.O. Box 2957, Reno, Nv. 89505

Drew Kelsey, Pueblo Cablevision, 620 West 9th St., Pueblo, Co. 81003

Frank I. Kovacs, Bixbee CATV, 99 Bisbee, Rd., Bisbee Az. 85603

Gerald E. Marnell, American Television & Comm. Corp., 300 Fillmore St., Denver, Co. 80206

Ronald R. Morriss, Century Cable Communications, Inc., P.O. Box 4397, Tucson, Az. 85717

John J. Murray, Compucon & Educational TV Consultants, Munds Rural Station, Flagstaff, Az. 86001

Paul O. Rhodes, Gilbert Engineering Co., Inc., 3700 N. 36th Ave., Phoenix, Az. 85019

John A. Pranke, Kaizer CATV, P.O. Box 9728, Phoenix, Az. 85020

Robert O. Schirmer, Midwest Video, 1425 Main St., Clovis, N.M. 88101

Theodore G. Warren, C-A Cablevision, Inc., 1110 W. Mermod, Carlsbad, N.M. 88220

Al H. Williams, Willcox Cable TV, P.O. Box 757, Willcox, Az. 85643

Edwin L. Wood, Colorado State Penitentiary, P.O. Box 1010, Canon City, Co. 81212

George E. Zeier, Communico, 1032 13th St., Boulder, Co. 80302

CANADA EAST - QUEBEC CHAPTER

Jean-Claude Adam, National Cablevision, 5-A Notre-Dame, Cap De La Madeleine

Henri Bertemes, Telecable de Quebec, 376 Du Roi, Quebec 2

Jean-Marie Boilard, Brunelle, Lambert & Associates, Inc., 2073 rue Branly, Quebec 12

Jacques F. Brunelle, Brunelle, Lambert & Associates, Inc., 2073 Branly, Quebec 12

Raymond P. Cousineau, National Cablevision, Ltd., 90 Beaubien St. West, Montreal 326

Jean- Charles Dagenais, Vidiotron Ltee, 30 rue St. Mathieu, Beloeil

Gilles Dery, Video Dery Ltee, C.P. 697, St. Raymond de Portneuf

Donet Doucet, Telecable de Quebec, 376 Du Roi, Quebec 2

Jacques E. Dufresne, Edouard Dufresne Antennes Communautaires, 27 Principale St., Amos

M. Dufresne, Fortin & Dufresne Ingenieurs Conseils, 582 Boulevard Lamarche, Chicoutimi

Andre Filion, Filion Tele-Cable Inc., 764 rue Ouimet, St. Jovite

Paul Fontaine, Claire-Vue Inc., 1679 St. Louis, Plessisville

J. J. Fortin, Fortin & Dufresne Ingenieurs Conseils, 582 Boulevard Lamarche, Chicoutimi

Camille Gelinas, LaBelle Vision Quebec Inc., 342, 4e rue, Shawinigan

Gerard G. Gingras, National Cablevision, Ltd., 90 Beaubien St. West, Montreal

Gerard Gosselin, Closed Circuit TV Corp., 1375 ouest bl. Charest, Quebec

Milton S. Gunn, Anaconda Electronics Ltd., Box 243, Station N, Toronto 14, Ontario

Charles D. Hebert, Deskin Sales Corp., 1565 Louvain St. W., Montreal 355

Paul N. Labelle, Cie Cable Vision de Hawkesbury Ltee, 207 William St., Hawkesbury, Ontario

Normand Lamy, Transvision Granby, 354 Main St., Granby

Alcide Launier, LaBelle Vision Que Inc., 1579 St. Phillippe St., Trois-Rivieres

Paul L. Leblanc, Fred Welsh Antenna Systems,(5594 Cambie St., Vancouver 15, B.C.) 2370 Raimbeault, Sherbrooke

Michel Letourneau, Telecable de Quebec, 376 Du Roi, Quebec

Gerard Malo, T.V. Drummond, Inc., 260A Brock, Drummondville

Pierre Matteau, Jules Matteau Television Inc., 1360 6e Ave., Grand'Mere

Claude Morin, Transvision Sherbrooke, 725 CPR Terrace, Sherbrooke

Mitchell Olfman, Electroline Television Equipment Inc., Suite 841, 1010 St. Catherine St. West, Montreal

Emile Page, Vikoa of Canada Ltd., 5215 de la Savane, Montreal 308

Marc A. Pelletier, Video Dery Ltee, 131 rue St. Joseph, St. Raymond

Robert M. Piquet, 1125 Marlboro Dr. No. 201, Montreal 306

Michel Rouleau, Transvision Cookshire Inc., C.P. 145, Cookshire

Sam Salvin, Cable TV Ltd., 8360 Mayrand St., Montreal 308

Jacques Savoie, Cablevision Victoriaville, 298 rue Notre Dame East, Victoriaville

David A. Shefler, Vikoa of Canada, 8340 Mayrand, Montreal

John Steele, Laurentian Cablevision, 425 Blvd. St. Joseph, Hull

Jean Theoret, Cable TV Ltd., 8360 Mayrand St., Montreal 308

Florian Thibault, Centre Electronic Thibault, 1646 St. Marc, Shawinigan

Gerald Watkins, T.V. Drummond, Inc., 260A Brock, Drummondville

Roger Yergeau, Lennoxville Transvision Inc., 115 Queen, Lennoxville

CANADA EAST - ONTARIO CHAPTER

Frank C. E. Baker, York Cablevision, Ltd., 93 Penn Drive, Weston

Dr. C. Peter Benedict, 25 Widdicombe Hill, Weston (Toronto)

If your address on this list should be changed, please fill out form on bottom of page 30 and return to the SCTE.

Joseph N. Tertoni, Maclean-Hunter Cable TV, 142-B Hurontario St., Collingwood

Carl Blocka, Rogers Cable TV, 51 Beverly Hills Dr., Toronto

Bryan Boyko, Jerrold Electronics, 60 Wingold Ave., Toronto

Ron C. Cheston, York Cablevision, 93 Penn Drive, Weston (Toronto)

Edmund C. Cook, Metro Cable TV Ltd., 49 Coldwater Rd., Don Mills

Albert de Boer, Electro-Comfort, 9 Baker Place, Brockville

John H. DeJong, Maclean-Hunter Cable TV, 27 Fasken Drive, Rexdale

Ross T. W. Dryden, Cablevue, 160 Front St., Belleville

K. J. Easton, Cable Consulting Services, 1608 Truscott Drive, Clarkson

Robert A. Elliot, Western Cable TV, 16 Graham St., Woodstock

David N. Emberson, Maclean-Hunter Cable TV, 27 Fasken Drive, Rexdale

William E. Evans, Manitoba Telephone System, 489 Empress St., Winnipeg 10, Manitoba

M. Aubrey Freemantle, Maclean-Hunter Cable TV, 27 Fasken Drive, Rexdale

Leslie Halsey, Cable TV Ltd., 8360 Mayrand St., Montreal 308, Quebec

Thom Jonsen, Maclean-Hunter Cable TV, 499 McGregor Ave., London

Alex H. Kerr, Metro Cable TV Ltd., 49 Coldwater Rd., Don Mills

Teppo Lehvonen, Keeble Cable TV, 1216 Lawrence Ave. W., Toronto 19

Ralph E. Maahs, Continental Cablevision Inc., 308 Queen St. East, Sault Ste Marie

Gordon Moogh, Marsland Engineering Ltd., 350 Weber St. North, Waterloo

D. A. Page, Delta-Benco, Ltd., 70 Ronson Drive, Rexdale

John R. Pfeiffer, Grand River Cable TV, 48 Preston St., Kitchener

Gordon E. Pigden, Hastings Cable Vision Ltd., P.O. Box 223, Madoc

Peter Pillwein, Guelph Cable, 86 Scottsdale Drive, Priory Park, Guelph

Joe Schrobback, Rogers Cable TV Ltd., 51 Beverly Hills Drive, Downsview

Keith A. Smiley, Ottawa Cablevision Ltd., 1530 Merivale Rd., Ottawa 5

Frank Verkaik, Rogers Cable TV Ltd., 51 Beverly Hills Drive, Downsview

David Wainscott, Terra Comm. Cable TV, Park Royal Plaza, Truscott Drive, Mississauga

Clinton L. Walbert, Skyline Cablevision Ltd., 1757 Russell Road, Ottawa 3

J. A. Yardy, Jarmain Cable TV, Newmarket Plaza, Newmarket

CANADA WEST CHAPTER

Erik Ackerlind, Cascade Electronics Ltd., Electronics Ave., Port Moody, B. C.

Leslie S. Akenclose, Community Video Ltd., 479 Wallace St., Nanaimo, B. C.

Morgan Anderson, Fred Welsh Antenna Systems, Ltd., 5594 Cambie St., Vancouver 15, B. C.

Abraham Barg, B.C. Cable Contractors Ltd., 1949 Kingsway, Vancouver, B.C.

Trevor Barrow, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver 15, B. C.

Brian Bethel, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver 15, B.C.

Thomas D. Birrell, Fernie TV Ltd., 115 Wallinger Ave., Kimberley, B.C.

Carl H. Bobardt, Delta-Cablevision Ltd., 1230 56th St., Delta, B.C.

Thomas A. Botter, Cablevision Medicine Hat Ltd., 527 Second St. S.E., Medicine Hat, Alberta

George W. Charles, Express Cable Television Ltd., 5594 Cambie St., Vancouver 15, B.C.

Leonard L. Charlish, Victoria Cablevision Ltd., 3690 Shelbourne St., Victoria, B.C.

R. Christie, Cablevision Systems, 5595 Cambie St., Vancouver 15, B.C.

George M. Clare, Parsons Electronics, 5516 Cambie St., Vancouver 15, B.C.

Clinton Cratty, Urban Cable Systems Ltd., 1033 Davie St., Vancouver, B.C.

R. William Dean, Cross Roads TV, City Hall, Edmonton, Alberta

Alex E. Dworkin,Northwest Community Ltd., 171 Pemberton Ave., North Vancouver, B.C.

Roy O. Ehman, Community Antenna Television Ltd., 3003 Macleod Trail S.E., Calgary 24, Alberta

Robert S. Ferguson, Merritt Cablevision, Box 908, Merritt, B.C.

E. W. Finlay, Cablevision Systems, 5594 Cambie St., Vancouver, B.C.

John T. Foss, Victoria Cablevision Ltd., 3690 Sherbourne St., Victoria, B.C.

William J. Gillespie, Kootenay Enterprises Ltd., 115 Wallinger Ave., Kimberley, B.C.

Walter H.J. Green, Alberni Cable Television Ltd., 735 3rd Ave. N., Port Alberni, B.C.

Kenneth M. Greentree, Co-Ax Television (1962) Ltd., 408 11th Ave., Estevan, Saskatchewan

Richard A. Gunoff, Black Knight Television Co. Ltf., 249 Barnard Ave., Kelowna, B.C.

John H. Harrison, Victoria Cablevision Ltd., 3690 Shelbourne St., Victoria, B.C.

Peter Hawker, Mainland Cable Services Ltd., 3114 Boundary Road, Vancouver 12, B.C.

Arno H. Hennig, Greenwood Video Ltd., Box 369, Greenwood, B.C.

Malachy Hughes, Shilo Cable Television, C.F.B. Shilo, Manitoba

Michael J. S. Jervis, B.C. Telephone Co., 768 Seymour St., Vancouver, B.C.

Gerald E. King, Urban Cable Systems, Ltd., 1033 Davie St., Vancouver, B.C.

Sulo Koskinen, Anaconda Electronics Ltd., 1915 Stainsbury Ave., Vancouver 12, B.C.

Flemming Lagesoe, Mainland Cable Services Ltd., 3114 Boundary Road, Vancouver 12, B.C.

If your address on this list should be changed, please fill out form on bottom of page 30 and return to the SCTE.

Gordon E. Levery, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver, B.C.

R. Lundegren, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver, B.C.

Larry J. Madore, Western Cablevision, 538 6th St., New Westminster, B.C.

Roberta F. MacDonald, Victoria Cablevision, 3690 Shelbourne St., Victoria, B.C.

Roman V. Mielen, Davin Enterprises Ltd., 1202 Wharf St., Victoria, B.C.

Arnold Monkman, Mainland Cable Service Ltd., 3114 Boundary Rd., Vancouver 12, B.C.

Bing Q. Mui, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver, B.C.

John Murry, Texada Mines Ltd., P.O. Box 10, Gillies Bay, Texada Island, B.C.

George K. Nelson, Rocky Mountain CATV Ltd., P.O. Box 2450, Hinton, Alberta

Lloyd C. Nelson, Rocky Mountain CATV Ltd., P.O. Box 2450, Hinton, Alberta

Stanley W. Nerada, Fred Wlesh Antenna Systems, 5594 Cambie St., Vancouver 15, B.C.

Thomas E. Parsons, Canadian Wire Vision, 5594 Cambie St., Vancouver 15, B. C.

Fredrick G. Peacock, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver 15, B.C.

Robert W. Peake, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver 15, B.C.

William G. Pither, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver 15, B.C.

Carl Price, Community Video Ltd., 1146 Cedar Ave., Trail, B.C.

J. Edward Prins, E & M Electronics, 624 33rd Ave. N.E., Calgary, Alberta

Edward W. Selby, Campbell River T.V. Association, 594 11th Ave., Campbell River, B.C.

Cyril G. Shearing, Shearing Systems Ltd., 1350 West Pender St., Vancouver 5, B.C.

Thomas A. W. Sinclair, Western Cablevision Ltd., 538 6th St., New Westminster, B.C.

William B. Sinclair, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver, B.C.

William M. Sinclair, Cranbrook Television Ltd., 45 9th Ave. S., Cranbrook, B.C.

Charles E. Stephens, Oliver Tele-Vue Ltd., P.O. Box 790, Oliver, B.C.

A. J. Waters, Fred Welsh Antenna Systems, 5594 Cambie St., Vancouver 15, B.C.

David R. Worsfold, Campbell River T.V., 594 11th Ave., Campbell River, B.C.

C. V. Wright, Western Cablevision Ltd., 538 6th St., New Westminster, B.C.

CANADA - NEWFOUNDLAND CHAPTER

Austin J. Greene, Memorial University of Newfoundland, Elizabeth Ave., St. John's, Newfoundland

FOREIGN CHAPTERS

Argentina

Lous Maria Perfilio, Asociacion de Telesistemas Argentinos, Tagle 2641 - 5 Piso, Buenos Aires

France

Henry Chemin, Laboratoire General Des Telecommunications, 16 Rue Du Moulin-Des-Bruyeres, Courbevoie 92

Japan

Donald Y. Park, Channel Master Far East Ltd., 29-6 Ohmori-Nishi 2-Chome, Ohta-Ku, Tokyo

Mexico

Javier Arouesty, Intelmex, S.A., 945 Coyoacan Ave., Mexico 12, D.F.

Antonio Huerta C., Cablevision S.A., 182 Rio de la Loza Dr., Mexico 7, D.F.

FOR CHANGE OF ADDRESS

Please fill in this form and send to:
SCTE, 607 Main St., Ridgefield, Conn. 06877

NAME _____

COMPANY _____

TITLE _____

COMPANY ADDRESS _____

CITY _____ STATE _____ ZIP _____

HOME ADDRESS _____

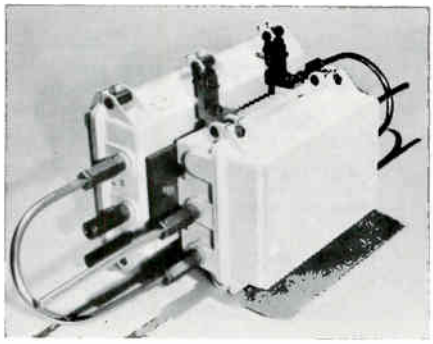
CITY _____ STATE _____ ZIP _____

OLD ADDRESS _____

CITY _____ STATE _____ ZIP _____

NEW PRODUCTS

REVERSE AMPLIFIER KIT



Theta-Com CATV (P.O. Box 9728, Phoenix, Ariz. 85020) has developed a reverse amplifier for converting existing one-way single cable systems to two way. The Reverse Conversion Kit consists of a single housing containing a 5-30 mHz reverse amplifier and necessary filters for facilitating reverse operation. The Reverse Conversion Kit features on-site mechanical installation to trunk amplifiers. It will be in full production in late May, the company claims.

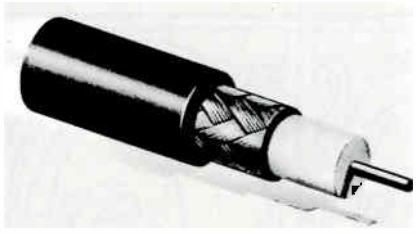
• • •

CONVERTER WITH AFC

The CATV Division of Oak Electro/Netics Corp. (Crystal Lake, IL 60014) has announced a set-top converter with automatic frequency control. The new AFC feature will ensure frequency stability and reduce the possibility of the subscriber incorrectly tuning either the converter or the television set when normal frequency drift occurs. Deliveries begin in the summer, we are told. Some technical characteristics are: input and output impedance are 75 ohms, input and output VFWR are 2:1 maximum, typical noise figure is 11 db, and cross mod is not visible on any channels over the specified operating range.

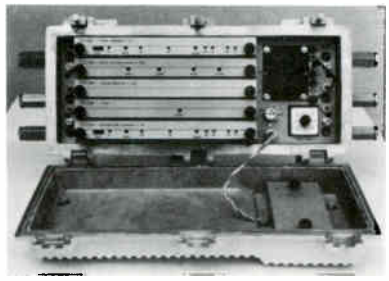
• • •

DROP CABLE



A new series of 97% braid shielded CATV drop cables has been announced by Cerro Wire & Cable of Freehold, N.J. Available in RG-59, RG-6, and RG-11 sizes, the new drop cables are made with tightly woven copper clad aluminum braid shields and copper clad steel center conductors for mechanical strength. They are available with either solid or foam polyethylene dielectrics, vinyl (PVC) or polyethylene jackets, with or without integral steel messengers, single and dual construction. Attenuation losses are from 2.3 db 100' @ Channel 13 for the foam RG-11 to 5.2 db/100' for solid RG-59.

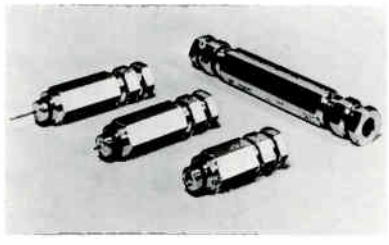
• • •



TOCOM, Inc. (P.O. Box 47066, Dallas, Tex. 75207) is offering its model 2000 amplifier series with push-pull trunk amplification with AGC; push-pull distribution amplification with one, two, three or four outputs; midspan bridger or terminal bridger with one, two, three or four outputs; status monitoring and bi-directional capability. The units are also available for either the "super trunk" concept or conventional system design. An external temperature probe senses atmospheric changes and compensates for cable attenuation changes due to temperature. Various thermal values are available. Other features include 30 or 60 volt tapped transformer, plug-in automatic reset circuit breakers on distribution ports, plug-in pad for cable spacing compensation, plug-in splitters and center-conductor seizing post integrated with test points to facilitate monitoring of all ports.

• • •

COAX CONNECTORS



The Magnavox Co. CATV Division (133 W. Seneca St., Manlius, N.Y. 13104) announces its expanded line of high rfi integrity coaxial connectors, the 990 series. Now available for foam dielectric aluminum sheathed coax as well as standard cable in .412, .500 and .750 sizes, each family of models includes a splice and feed-thru and a short or long pin for chassis types. The connectors are constructed with extra-long sheath

support to prevent the effects of wind-whip and are equipped with a Silver-impregnated Carbon-rubber rfi exclusion gasket.

• • •

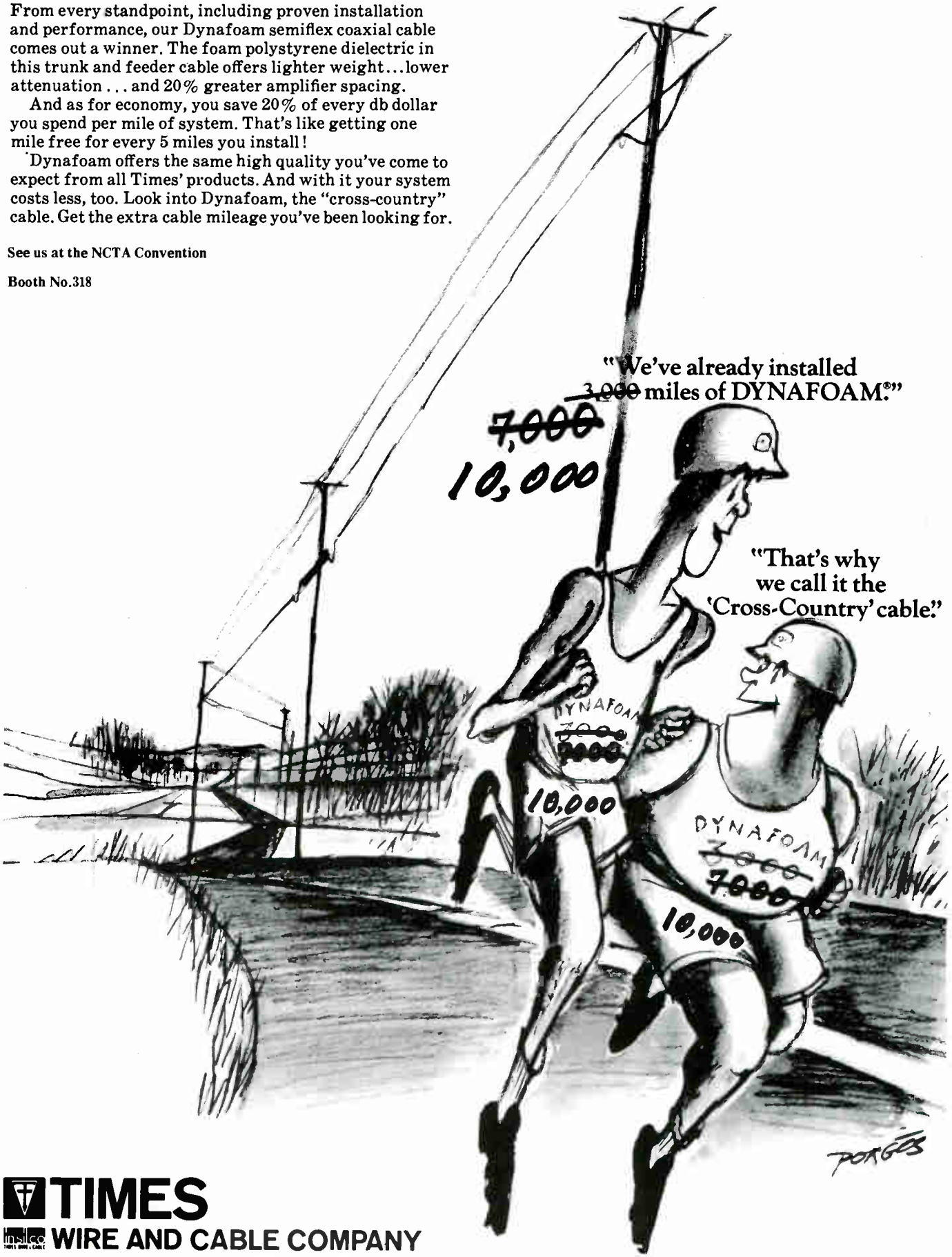
From every standpoint, including proven installation and performance, our Dynafoam semiflex coaxial cable comes out a winner. The foam polystyrene dielectric in this trunk and feeder cable offers lighter weight...lower attenuation . . . and 20% greater amplifier spacing.

And as for economy, you save 20% of every db dollar you spend per mile of system. That's like getting one mile free for every 5 miles you install!

Dynafoam offers the same high quality you've come to expect from all Times' products. And with it your system costs less, too. Look into Dynafoam, the "cross-country" cable. Get the extra cable mileage you've been looking for.

See us at the NCTA Convention

Booth No.318



TIMES
WIRE AND CABLE COMPANY

Wallingford, Connecticut 06492. Tel. (203) 269-3381 • Phoenix, Arizona 85005. Tel. (602) 278-5576
Northeast—Dean Taylor—(413) 736-2258 • Mid-Atlantic— Tel. (203) 269-3381
Southeast—Frank Hamilton—(404) 432-3102 • Mid-America—Rex Porter—(816) 842-3885
West (415) 365-5161

Now! 3 great product lines for total broadband communications.

Now you can go all the way – both ways – with Theta-Com. One company with total system capability for CATV. Microwave LDS. Cable. Amplifiers. Subscriber response systems. Total two-way broadband communications. And when it comes to quality, we're number one!

1 THETA-COM CATV

This division manufactures distribution equipment including XR (extended range) and XR-2 (two-way) amplifiers, passive devices, and coaxial and drop cable. Plus field and in-house engineering services leading to turnkey projects. With reliability proven through use in hundreds of systems across the nation, Theta-Com CATV continues to offer its customers the finest product and service applications available.

2 THETA-COM AML

The first and the finest in multichannel microwave systems designed to transmit the entire VHF television spectrum from one point to another. Extend your system's range. Reach remote pockets of population. Cross barriers. Eliminate multiple headends. Decrease the length of amplifier cascades. You'll get farther, faster, for less with Theta-Com AML!

3 THETA-COM SRS

The Subscriber Response System (SRS) makes available the technology and equipment needed at both ends of broadband communications networks for meaningful use of two-way cable television systems. Uses include home shopping, educational instruction, reservation services, data bank access, premium and/or restricted entertainment, opinion polling and emergency alarms. The first Theta-Com SRS system begins service in 1972!

NCTA Visitors

See all three Theta-Com product lines operating together in a complete two-way system!

LIVE IN THE NORMANDIE ROOM

THETA-COM OF CALIFORNIA
9320 Lincoln Boulevard
Los Angeles, CA 90045
(213) 641-2100