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The Professional Television Journal

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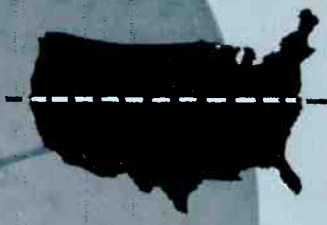
FROM COAST TO COAST



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Channel 1

- CATV
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- UHF-TV
- Associated Industries' News

IDAHO COURT REACHES DECISION INJUNCTION ISSUED

A decision has been reached. The much contested, two year deliberation between Twin Falls, Salt Lake City broadcasters, and the CATV operators in Twin Falls, Idaho has reached a point of climax. On July 30th, U.S. District Judge William T. Sweigert of the Southern District of Idaho, ruled that Cable Vision and Microwave, Inc., could not distribute Salt Lake City TV signals to Twin Falls viewers if KLIX-TV (Twin Falls) was telecasting identical programs. Basis for this decision was the contention that the local TV station (KLIX-TV) was entitled to economic protection of its contractural rights to first run of network and film programs.

What the full implications of this are, we do not yet know. However, for the first time, the public is being told whose TV station they must watch or be penalized by not being able to view their desired program. For this is in essence what the CATV system is, the general public, whether they be local or rural.

To digress slightly, compare the franchised car dealer in a local community. May he claim the same rights if a dealer from another community says via advertising "come on over to my establishment and I'll sell you the same car cheaper." Sound familiar? Could you not enjoin him for his activities? No, this in not offered as an argument nor a legal parallel. Rather, carefully study the ethics involved.

This decision does not solve the TV stations problems when it comes to local advertising. The syndicated and/or network programs are usually **not** locally sponsored. At least not locally sponsored in small towns like Twin Falls. Those that might fall in this category are usually the poorer programs according to TV ratings. The only advantage the TV station gains is the opportunity to sandwich local spots between network programs. How does this affect the TV station? Very simply, the viewer already has a choice of stations.

The viewer will be watching the local station only to see those network programs denied him on the cable, in other words, they will see only a small amount of the local advertising. How about the cable system? The TV station is required to give them two weeks notice of upcoming special programs, and also inform them of the routine programs. They, in turn, cannot duplicate the TV stations programs which means deleting one of three stations brought in from Salt Lake City.

Since KLIX-TV picks up, off-the-air, signals from all three stations in Salt Lake City, dependent upon their program schedule, it means some effort will be necessary to promptly delete the signal of whatever station KLIX-TV is rebroadcasting. There is a definite nuisance value here but worse still, at least for the local TV station, is the loss of good will as far as the public is concerned. So, has anyone really solved anything? Co-operation would certainly pay dividends when it is possible. Captive audiences are a theoretical impossibility since the public will succeed in obtaining what they want.

JERROLD BACK INTO CATV OWNERSHIP

Jerrold Electronics Corporation has just announced that they are once again engaged in ownership and operation of CATV systems.

Mr. Sidney Harman, President, stated that Jerrold has a new system operating in northern Illinois, serving Ottawa and Marseilles, with future plans calling for expansion into Streator.

The CATV systems, served by microwave links, are jointly owned by Jerrold and Alliance Amusement Company, a leading Midwest motion-picture exhibitor.

Additional planning is underway to join these systems with other Jerrold-owned systems in major population areas throughout the United States.

NEW RECEIVING STATION FOR LARAMIE, WYOMING

Collier Community TV Company is constructing a new off-the-air receiving station for their Laramie, Wyoming Cable System. Scheduled for completion in early September, the new receiving station will carry five channels from Denver, Colorado and one from Cheyenne, Wyoming. One of the Denver channels carried by the system is an educational station.

Located atop Pilot Knob, a 9000 foot predominance, the receiving site will be supplied with power by a six and one-half mile pole line which will also carry the signals down into Laramie.

Jerrold antenna equipment with Andrews Heliax coaxial cable on a dual 150 foot tower will provide the off-air pickup. The main line will consist of one-half inch Phelps Dodge Spirafoam cable with SKL amplifiers and control equipment.

SEPTEMBER 1962
VOLUME 3 — NUMBER 9

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EDITORIAL

Through the blackness every once in awhile comes an occasional ray of light. Several items of interest have been passed on to me recently, sufficient in fact, to illustrate the CATV industry's concern in becoming a true helpmate. In general our 'youngster,' our somewhat berated 'youngster,' is reaching out for peaceful coexistence.

New or old, one must admit that without fail this thought has been uppermost in all our minds. Faults, we all have! Problems? It takes two to create them. Likewise, it takes that many to solve them.

Apparently some of the leading and some of the very small systems have been conducting some very beneficial campaigns to improve broadcaster relationships. Their attempts have not gone unrewarded.

Due to sheer curiosity, I picked up the telephone the other day and called an old friend. A man who is a leading television broadcaster, a man of unquestionable integrity best describes my opinion of his qualities. To briefly sum up our conversation, he stated that though he had a CATV system in his own yard, they were getting along very well. Oh, they had their problems all right but resolved them to each other's satisfaction. Was he concerned monetarily about having this system on home ground? Yes, admittedly he could make more money if it wasn't there.

No, I did not pick this man because of any known reason, I had no idea how well things were or were not going.

The point? He is getting along well with the system. Mainly, this is possible because both listened to each other. AND, this was a one station market.

RLM

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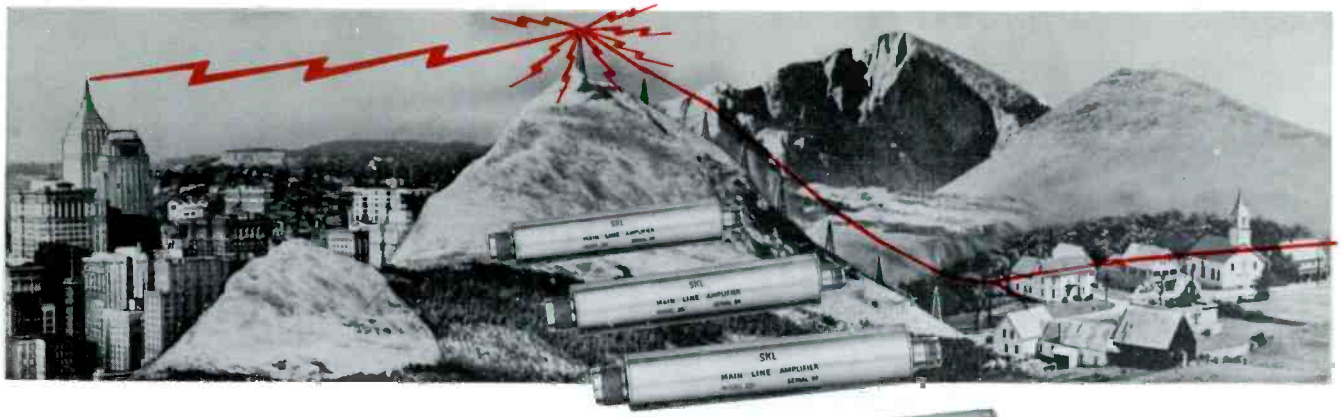


From SKL...

A Complete Solid State CATV Equipment Line

- **Fully Transistorized**
- **Remote Cable Powered**
- **All-Channel Head End**
- **Long Cascaded Trunks**
- **Economical Feeders**

Both present and prospective CATV system owners can gain real happiness from SKL's engineering achievements in solid state equipment.

For example, the present owner who has a tall tower or a rather inaccessible antenna site is constantly fighting the inconvenience and cost of maintaining tubed equipment at these locations. Now he can install SKL's maintenance-proof Model 271 Antenna Preamplifiers to save tower climbing. And now he can lock his equipment shack door on a completely transistorized head end station which ages a great deal more slowly and requires check-ups much less frequently than he himself does.

The prospective owner planning a new low band and subchannel system can save money and know peace of mind by going SKL solid state all the way from the start. As he smiles on his carefree head end, he will look at his cable powered, cable mounted line amplifiers — ruggedly constructed in waterproof housings — and count the dollars he didn't spend on amplifier cabinets, mounting brackets, cross-arms, jumper cords, service entrance equipment and installation labor. He will look at his very few power supply points and marvel at how little they cost to put in and how low his power bill is every month. He won't think about tube maintenance, because it doesn't even concern him.

SKL
SPENCER-KENNEDY LABORATORIES, INC.
1320 SOLDIERS FIELD ROAD
BOSTON 35, MASS.
ALgonquin 4-5400

Please call or write us about your interest in SKL solid state equipment. We'd like to tell you other ways in which it can contribute to your happiness.

IMPROVING OR BUYING? IT COSTS.

CATV MONEY . . . Yours for the Asking

by James F. Ackerman

The Community Antenna Television industry has come of age. No longer is it necessary for the system owner to finance construction from connecting fees. Connecting fees today are normally only $10.00 to $25.00, compared with $100.00 to $150.00 a few years ago. One of the reasons has been the increased availability of funds with which to build the system from outside the cash flow of the business. There are many sources for these capital funds but they are obtained primarily from investors, banks, finance companies and Small Business Investment Companies, more commonly known as SBIC's.

CATV system owners today need to look for more funds for the following reasons: 1. to rebuild or replace present equipment; 2. to purchase partners' or other investors' interests in the system; 3. to expand to other franchises; 4. to purchase additional equipment and service more customers; and, 5. to buy other systems.

Because of technological advances, systems are now being remodeled with new all-band equipment, monaural FM and stereo. Some systems are even adding equipment to supply local weather casts. Systems which have a low monthly rental can increase their income by modernizing their equipment and offering increased and better service to their customers.

A CATV owner has to decide whether he will stay small and be satisfied with a small return or whether he wants to expand and increase his net dollar profit. He can expand by sharing his equity with someone else or arranging long term financing through a financial institution.

Recently, system operators have considered expanding to cities and areas where there is already some television signal. The potential of these locations for large systems is tremendous. The risk is much greater, however, unless there is ample working capital, sound engineering principles and a sound evaluation of the area.

It appears that the industry potential is still very large and many desirable locations still exist. These are going to take more money (bigger investments and/or more financing) than was thought necessary a few years ago.

Equity Financing

It might appear that equity financing is the lowest cost method of putting money into an operation, but this is not correct. A few friends are sometimes willing to participate in a business and acquire a part of the common stock. The result is that the original owner reduces his share of future profits. This often creates more than one boss and disagreements may follow. Eventually dividends may be paid but they are not a tax deductible item.

Issuance of preferred stock is another form of equity financing and one which does not materially reduce percent of ownership. However, this method usually requires payment of dividends immediately and, if used by a relatively new system, forces payment at the time the system can least afford the disbursement and reduction of working capital. Again, dividends when paid are not tax deductible and cost about twice the apparent dividend rate when compared to a similar interest rate for borrowed money.

Subordinated debt might be a sounder means for an operator to raise funds since the interest expense would be a business deduction for tax purposes. Usually a rate of 6 to 10% interest is needed to make the loan attractive. However, the basic problem is that these types of notes and bonds are difficult to sell unless they are made attractive by a stock conversion feature and a high interest rate.

Possibly an even greater problem is the time taken away from the operation of the system and used in selling notes, bonds or stock. The time of the operator could probably be more profitably used in the business itself than in raising funds through equity or long term debt financing.

Another serious problem with public financing through the sale of stock, notes or bonds is that, if it is done on a large scale basis, consideration must be given to the time and expense of registration with the State Securities Commission and the SEC (Securities and Exchange Commission) if sales are to be made in more than one state.

Bank Debt

Many CATV operators have secured lines of credit from their local banks. Where such loans are available, this is the cheapest form of financing. The rate of such banks today varies from 5½% to 8% simple interest. One of the most attractive ways to use bank funds is a construction loan on a new system with a commitment from a long-term lender paying off the bank when the key is turned.

Many outstanding bank loans have been made directly to the individuals instead of to the companies. Most banks will not take time to learn the technical aspects of CATV. In addition, the larger banks often require compensating deposit balances and some require periodic clean-up periods (full repayment of loan) during the year. Smaller banks sometimes have the lowest financing cost if they don't require compensating deposit balances and in lieu thereof are satisfied with the business checking account of the system.

One of the major problems in the past has been that the operator's borrowings have often been

BLONDER-TONGUE MODEL UBP UHF PRE-AMPLIFIER

There's nothing like the Blonder-Tongue UBP on the market today. Mast-mounted to take advantage of the maximum signal-to-noise ratio available at the antenna, it increases signal voltage by at least 14db. The UBP uses two low-noise frame grid tubes. The remote power supply sends a 'safe' 24 volts of AC power to the mast-mounted UBP amplifier of the same downlead which carries the signal. The UBP is enclosed in a weatherproof housing with swing-down chassis for easy servicing.

The original Blonder-Tongue Ultra-booster covered only channels 70 to 83. When it was introduced in the MPATI areas, it was so dramatically effective that installers throughout the country demanded units for their particular UHF channels. There are now five standard models, each covering a specific portion of the UHF spectrum: (1) UBP 14 thru 29; (2) UBP 25 thru 40; (3) UBP 41 thru 55; (4) UBP 56 thru 69 and (5) the original UBP for 70 thru 83. In addition, other frequency ranges are available on a custom basis.

The professional UBP, for CATV use, has a 300 ohm input to the amplifier, with 75 ohm Benconectors for amplifier output and remote power supply input and output. Three M-73 male Benconectors (for RG-59/U) are supplied. (Note: Type F male connectors fit M-60 Benconectors). Net price of basic UBP is **$102.00**

CUSTOM UNITS AVAILABLE—UBC

Custom UB units (model UBC) are available for any desired frequency spread covering a 5 to 14 channel segment of the UHF band, with your choice of the following connectors:

INPUT OF AMPLIFIER

1. 300 ohm stripless screws
2. 75 ohm Benconector (with M-73 supplied)
3. 50 ohm type N connector
4. 75 ohm type N connector

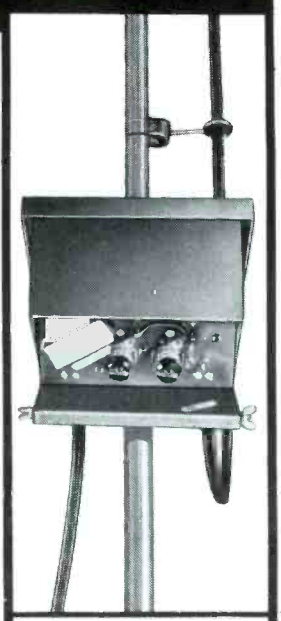
OUTPUT OF AMPLIFIER

1. 75 ohm Benconector (with M-73 supplied)
2. 300 ohm stripless screws
3. 75 ohm type N connector

Input and output connectors of RPS will be the same as amplifier output connector.

Net Price of the UBC is **$145.00**

300 ohm UB units are also available ..... **$ 62.00**



Model UBP with remote power supply

engineered and manufactured by

BLONDER TONGUE

9 Alling St., Newark, 2 N. J.

Canadian Div.: Benco Television Assoc. Ltd., Toronto, Canada Export: Rocke Int'l., N. Y. 16, N. Y. Cable: ARLAB

Home TV Accessories • UHF Converters • Master TV Systems • Closed Circuit TV Systems • CATV Systems

limited by the size of the local bank in his small community. Normally a bank cannot lend to any one borrower more than 10% of its capital and surplus.

Recently, some of the larger commercial banks in the country have committed funds to some of the larger CATV systems. This is a break-through for the industry. These loans have been made at 5½% or 6% interest but have generally required large compensating balance deposits so that the actual effective rate sometimes approaches 8%. The banks also generally require a capital debt ratio of 1 to 1 or at the best 2 to 1. (i.e. with a 1 to 1 debt ratio; debt could not exceed tangible net worth.) One of the larger banks in the country has not made a loan to groups of systems unless the proposed annual repayment of the loan plus interest does not exceed fifty per cent of the cash flow of the group over the proposed period of the loan. The net effect is that a small system cannot generally qualify with a large commercial bank under such a program.

Long-Term Financing

A finance company takes a slightly different approach to the needs of the CATV operator. Finance companies depend on the three C's of credit . . . Character, Capacity and Collateral. Character refers to the character of the individuals requesting the funds, their background, their morals, etc. Capacity is their management ability and knowledge of the business. Collateral is the system itself . . . value based on current market value, its future potential market value based on current and anticipated percentage of market penetration and current and anticipated net profits and cash flow.

Our institution defines cash flow as net profit after federal income tax plus depreciation. The monthly repayments, excluding finance charges, should not generally exceed 75% of the anticipated cash flow over the period of the loan in order for our company to approve a CATV system loan. Long term financing on this basis is currently available with terms up to approximately 5 years. Rates vary, based on the size and term of the loan and are quoted on an add-on discount rate per year. For example, the rate used on larger loans for five year financing is generally quoted as $6 per $100 per year or $6 add-on. This is slightly less than 11% simple interest per year.

The finance company takes a chattel mortgage on the complete system as collateral for the loan. However, the finance company has no desire to control the management of the business.

The personnel of many finance companies lack experience and knowledge of the CATV industry. An attempt to get funds from a company that has had no experience with CATV will often require considerable time explaining the operations and may still result in a rejection of the loan. Thus, if this avenue of financing is used, a finance company with prior experience in the industry should obviously be selected.

The advantages of arranging a loan with an experienced finance company can be illustrated by the following story: A father and son applied to our company for a large loan to build a new system in a town near an existing system operated by them. Their present system had been built over a ten year period and had no liabilities at the date of the application. In fact, they had never been able to borrow funds locally except five to ten thousand dollars on a personal credit basis. After reviewing the projections the proposed loan appeared to be a good commitment for us. Upon reviewing the documents we discovered the prospective borrowers had made a binding commitment to sell the system for approximately a half million dollars without realizing that they were fully bound.

The borrowers explained that they had not realized that they could borrow funds for building the new system until a few days prior to contacting our company and had been negotiating the sale. Although a loan from our company might have cost the borrowers approximately sixty thousand dollars, they would have increased their system's value by a half million dollars. Their failure to analyze completely all methods of financing probably cost them approximately four hundred forty thousand dollars.

Finance Companies may sometimes be able to save an operator money on the purchase of new equipment. Although most manufacturers will sell on credit, some limit the term of repayment. Cash purchases by a CATV operator often results in a lower price since the manufacturer would either need to use his working capital for extending credit or discount the contract to a bank or finance company. Either method would entail a cost to the manufacturer which must necessarily be passed on to the CATV operator.

SBIC's

Small Business Investment Companies are becoming increasingly interested in CATV financing. At this time, six SBIC's have made commitments to CATV systems. Most of these loans were for the purpose of enabling borrowers to purchase existing

systems. SBIC's obtain an option to purchase a part of the equity (common stock) within five to ten years as additional consideration for making the loan. The normal amount of stock covered by such options may vary from thirty to fifty per cent of the total. Sometimes repayment is not required on principal for the first two or three years. Rates are usually 8% interest or more for a term of five to eight years.

Today most SBIC's have surplus funds available. Many have gone public in the past 12 month and have not found enough investment situations. An advantage of using an SBIC loan is that 50% to 70% of a large system is sometimes better than 100% of a smaller system. It is often helpful to have a broker negotiate for the owner as the broker should know whom to contact and would probably be helpful in the negotiating the amount and terms of the loan and stock options.

An SBIC may not be interested in small loans. Larger systems and operators of multiple systems should investigate the SBIC method of financing,

especially if bank and finance company funds are not available and if willing to grant an option on part of the common stock as additional consideration for the loan.

Summary

A CATV system owner who is ready to build additional mileage, switch to new all-band equipment, or receive a new franchise, should consider the various methods of financing. Such an owner may be able to finance a new franchise and construction of a new system from the cash flow of his old and new system over a period of years without any financing. However, he needs to consider how much larger his profits could be if he "turn keys" a complete town and has a 50% saturation, instead of 10%, within a year or two. No doubt, an owner can afford to pay some additional interest in order to have his cash flow accelerated by years.

Although bank money is usually least expensive, when available, the term of repayment is generally relatively short. In addition, most CATV system's financial needs have outgrown their local banks' available funds. If this is the case, other areas of financing should be investigated. Generally finance companies which have specialized in CATV financing can be most helpful if operators wish to retain 100% ownership.

James F. Ackerman

About the Author:
James F. Ackerman is Vice President and Treasurer of Economy Finance Corporation and Indianapolis Morris Plan Corporation of Indianapolis, Indiana. He is a director of the National Commercial Finance Conference, past president and honorary member of the Board of the National Charge Account Bankers Association and a Certified Consumer Credit Executive of the National Retail Credit Association.

SEEN AT THE NCTA CONVENTION

Raytheon's popular Miss Ginny Waters pins a boutonniere on Jim Conner of AMECO. At right are George Hinckley, Sales Manager and Tim McInerney, both of Raytheon.

Meet the rest of the personalities that make up our CATV industry. We just couldn't get everyone into our Convention Coverage Reports, Part One and Two, although we would have liked to. See page ten for additional photos.

SNOW AND ICE IS NOT FAR OFF!

RADIO REMOTE CONTROL of ANTENNA SITES

— Russ Miller, Managing Editor,
Television Horizons —

With our fall and winter weather soon to appear, ones thoughts drift toward the ever-present problems these time of the season bring us. Not least of course is the dilemma that ice and snow produces. What are your problems? Probably like everyone else, that per-chance failure of some of the head end equipment. Save that trip through the slush and inclement weather. Make use of the tools of the electronic trade, operate your head end via remote control. This is not a new idea by any means but it is a seldom exploited one.

Remote control of your antenna site and associated equipment will pay dividends. Not only can you eliminate midnight trips which can prove hazardous but also the customer will appreciate you since the continuity of operation can be vastly improved. Most all CATV operators have spare equipment available at the antenna site and the common means of changing out bad gear for good equipment is through the medium of the technician. Switch this situation around slightly and let some relays do the switching for you.

WIRE CONTROL

There are many means of initiating remote control. One most common method is by wire control, with the actuating means provided by either DC voltage or audio tones. The DC voltage method depends upon simple one-way devices or rectifiers and current sensitive relays. Figure 1 illustrates the application of this principle. If switch S-1 is in the position as shown and S-2 is closed, relay 3 will actuate. If S-1 is changed to its other position and S-2 closed, relay 1 will actuate.

Effectively, this allows a simple 4 function control using a one pair telephone line. The relays can be of the current sensitive type, requiring only 5 mA. of current to actuate them. Consequently the batteries could be 45 VDC dry cells such as the type used in portable radios or separate power supplies could be built for this purpose. This principle can be elaborated upon with ease to provide many more functions.

The tone principle simply uses filter or reed type tone decoders available from a number of sources. The number of functions then would depend upon the number of tones available.

But, like so many other things, the use of wire control is limited. It is limited by the high cost of installing a good telephone line of the broadcast loop variety and by the simple fact that it is expensive to maintain. This is especially so where snow and ice are prevalent. This leaves us to choose the best method. Radio remote control.

RADIO CONTROL

Radio remote control has been with the electronics industry for a goodly number of years. It does and can do most anything you can think of. It regulates traffic flow by controlling key traffic signals, it runs overhead cranes, switches locomotives, helps to load timber, and opens garage doors. This is only a sample of its many worthy applications.

Using radio control for CATV applications requires very little imagination. Here again the mode or method of achieving control of various devices is accomplished with audio tones. But, let's not stop here its uses can be extended beyond just turning things on and off for us. It can be used as a means of communications between personnel at the head end and personnel working on the lines. Think a minute of the advantages here. Amplifier adjustment will be made much simpler. Trouble shooting can be made easier, all to your benefit time-wise as well as economically.

How about using radio control to switch channels up at the head end? All means of good coaxial relays are available to do the actual switching. The selection of various channels need not be made a complicated process. Use one of the telephone type stepping or X-Y relays to do the job of selecting the proper coaxial relay. An excellent example of a good X-Y switch is the Stromberg-Carlson unit which is readily available.

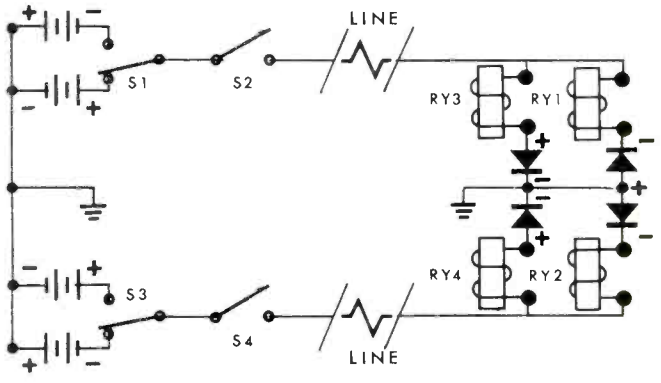


FIG. 1

Control of the X-Y switch can be accomplished with a single tone, using a second tone to close a safety or protective relay. This means allows you freedom from worry that some inadvertant signal

HOLT Advanced Engineering

Now gives you the Model LH-BB-AGC

Broad-Band Line Amplifier

The Model LH-BB-AGC Broad-Band Line Amplifier by Holt is designed for channels 2 through 6, FM, and 7 through 13. High stability is obtained through the use of a complete automatic gain control circuit with very excellent holding quality for each band.

FEATURES:

Designed for Continuous Commercial Service, long life, low operating cost, high gain, low noise, low power consumption, linear curve response, variable tilt and low maintenance. It has a separate AGC circuit for low and high bands. All of these carefully engineered features add up to happier customers . . . higher profits for you!

SPECIFICATIONS:

Type	Broad-band ch. 2 through 6, 95 mc. and 7 through 13
Tilt	Ch. 2 to 6, 4 to 9 db. variable, ch. 7 to 13, 2 to 4 db.
Control	Manual or automatic gain
Input	6 to 15 db. (0 db. at 1000 mv.)
Suggested input	10 to 15 db.
Output	40 db. 12 channel, 46 db. 7-9-11-13
Alignment	Factory aligned and can be aligned by technician with proper equipment.
Gain	40 db. at ch. 6, 46 db. at ch. 13
Power Consumption	50 watts, 115 volts, 60 cps.
Test point	20 db. down
Impedance	Input 75 ohms, output 75 ohms
Curve	Linear plus or minus .5 db.
Noise figure	Low-band, 7.5 db.; High-band, 8.5 db.
Input match	1.25-1
Dimensions	7 x 5⅝ x 11 inches
Tube complement	(2) 6922, (2) 12BY7, (2) 6AW8, (3) 7717

Automatic Gain Control, 1 db. output change for 6 db. input change. Units can be aligned on low-band from ch. 2 through 108 mc. on request.

PRICES

DELUXE MODEL	$425.00
SUPER DELUXE (A.C. Regulated)	$460.00
ULTRA DELUXE (A.C. & D.C. Regulated)	$499.00

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will accidentally shut your system down. The simplified example shown in figure 2 shows this type of X-Y switch operation. For the sake of discussion, the tones can be separated by about 400 cycles or less depending upon the particular decoders. The equipment used to transmit the tone signals need have only a dial (telephone type) and a key switch. Depressing the key switch should send one tone, the other is sent whenever the dial switch is pulsing. This dual tone method prevents noise keying or voice keying of your equipment.

If the situation arises where sufficient interference is encountered to cause you troubles by inadvertant operation of an X-Y switch, further steps can be taken to improve the system such as installation of an audio FM tone receiver. An FM tone receiver allows only the proper audio frequency shift to key its respective relay. Any random noise pulses, which are essentially varying in amplitude rather than frequency, and also any amplitude modulated radio signals will not affect it.

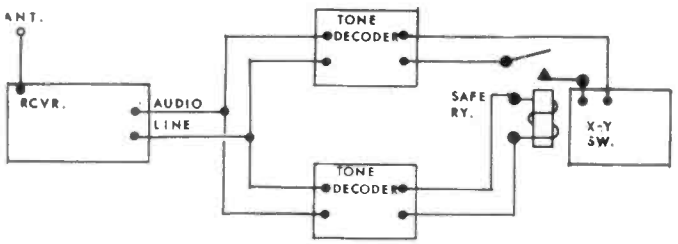


FIG. 2

These specific instances are but one of many ways that can be established to provide the CATV system with flexibility, via radio control. The communications that can be provided by such a system have already been pointed out, but we might add that a dispatch system for the service trucks and construction vehicles can be included into the radio system.

EQUIPMENT

The most readily available equipment on the market is that provided by the manufacturers of "citizen's band" gear. The price of good equipment is relatively low and some of the manufacturers offer tone encoder and decoder units. All in all this is one means of getting started into radio remote control. The total cost of such a system as outlined would probably not exceed $700.00 Since the licensing requirements are easily met, a dispatch system to go along with your remote control could be added at a very low cost.

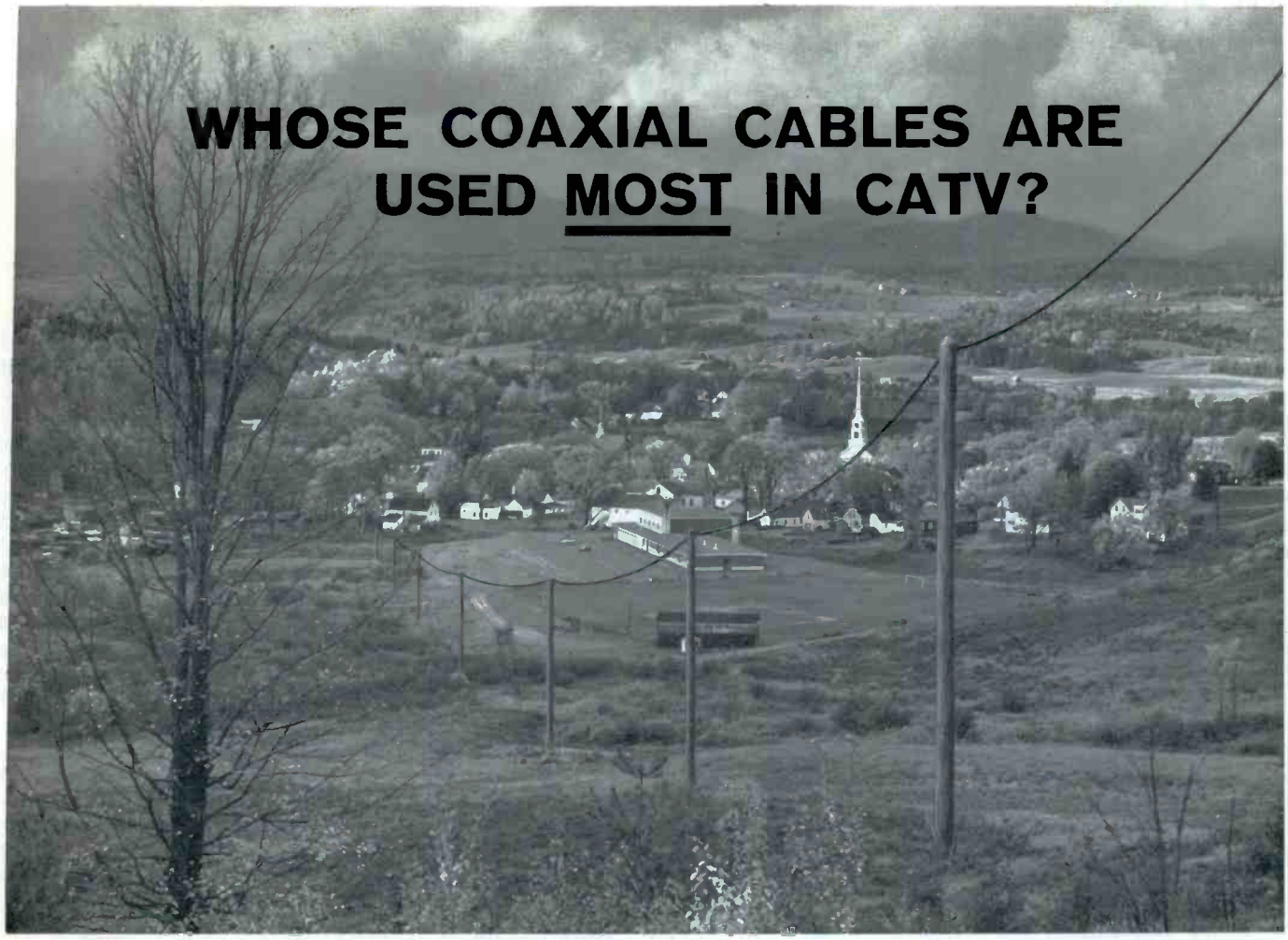
There are also frequency allocations up in the 465 Mc. area which will allow virtually the same type of operation. The only advantage gained here would be better privacy of communications and a little more power can be run as far as transmitter output is concerned. However, the cost of equipment is quite high. Whatever your current needs are, there is a quantity of various equipment now available. Radio remote control will save you money.

SEEN AT THE NCTA CONVENTION

Luther D. Holt (l) displays his large CATV equipment line while his Chief Technician, Frank B. Chaundy, discusses Holt Electronics products with Barrie Stevens of Staunton Video Corp., Staunton, Virginia, and Blair Lepkosky of Cambria TV Distribution Company, Carrolltown, Pa.

Gerald E. Marnell, Engineer for Cable TV Construction, Inc., of Iola, Kansas, is pictured here with R. H. Potter and Cecil Crawford (r), CATV operators from Oklahoma.

Phil Kenter, Manager of Component Marketing at INTEC (International Electronics Corporation) is shown here with his attractive booth.



answer:

TIMES!

Today there are more than 400 million feet of Times' CATV cable in use throughout the nation—more than any other manufacturer's. Times has produced coaxial cable for CATV since the industry began. In addition, Times has pioneered *every* major cable improvement—and has set the industry's standards for TV transmission cables. This unequalled record makes Times the first choice for the newest, most advanced cables.

TIMES' NEW JT 400 SERIES GIVES BEST RESULTS

The latest Times cable to win industry acclaim is the JT 400 Series—the first proved "Strip-Braid" coaxial cable. Field tests on operating systems for over two years have proved the JT 400 Series cables to be the most economical cables in use today. There are now more than 8 million feet of JT 400 Series cables in operation giving the most efficient and reliable cable service for all-band systems. Exclusive JT 400 Series features include:

- Best attenuation uniformity (Cables sweep flat within 0.5 db in 40 db of cable).
- Best radiation characteristics.
- Best impedance uniformity.
- Lighter weight by 20-40%.
- Same O.D. on single and double shielded versions are possible.
- Double shielded versions with the equivalent characteristics to previous double shielded, double jacketed cables.
- Cable sizes fit existing pressure taps.
- Times' Xelon jacket assures proved long life.

Times' CATV cables are available for immediate delivery. For further information, wire or write direct to Times' Sales Manager.

*A DuPont Trademark

TIMES WIRE AND CABLE
Division of The International Silver Company
Wallingford, Connecticut

TRANSMISSION SYSTEM DESIGN AND ENGINEERING • STANDARD & SPECIAL PURPOSE COAXIAL CABLE • MULTICONDUCTOR CABLE • COMPLETE CABLE ASSEMBLIES • TEFLON* HOOK-UP WIRE

MORE INCOME FOR YOUR CATV SYSTEM

"SPLICING" TAPE TO CABLE

by George M. Anthony
President, Tape-Athon Corporation
Inglewood, California

Late in 1959 two representatives from a Midwestern cable company sat down in the president's office at an Inglewood, California firm to discuss a facet of their business, the execution of which had already become a thorn in the side of many cable operators. Early CATV'ers had discovered that additional revenue could be gained by supplying certain commercial accounts in their area with background music. This could easily be done with a cheap record player, small tape recorder, or a variety of sound producing "lashups." None of these was satisfactory, but an engineer could put up with it for "the time being." Some of the music was good, some bad . . . none of it was programmed for this new application. However, it succeeded in accomplishing one thing: in whetting the desire, not only of the commercial accounts, but every subscriber on the line. Now the operator was faced with the demand of supplying a professional type of service for which he was not prepared. Nonetheless, he realized its potential was important to his over-all operation. What was he to do?

He first turned to manufacturers of professional sound reproduction equipment, but the only systems available were not designed for his purpose, or else they were prohibitively expensive. Even when he had agreed to such a system, the operator was still faced with an adequate music source to be used on this system. It was at this point that the decision was made for operator and manufacturer to work out the problem together . . .

The operator put these demands to the manufacturer. The equipment must be: automatic; built for long periods of operation with an absolute minimum of maintenance; must conform to the transmission facilities existant in CATV operations; must conform to standards already established by NARTB, CATV, and other specifications peculiar to CATV; a music library of highest quality, programmed specifically to the CATV listener; above all . . . the cost must be reasonable.

Could it be done? Yes. Not overnight perhaps. In fact, it was only after two years of research and development that Tape-Athon was able to offer to the industry "the equipment that met every specification and demand proposed by CATV.

A single cabinet housing twin 10 inch tape decks combined with the interspersers, time clock, and a safety switch to operate one deck continuously should the other deck fail, instantaneous push - button selectors for 144 programs, constant sound level via AGC. To guarantee reliability and simplicity, all nuisances and gadgets, unnecessary to CATV, were stripped from its design, such as fast winding, recording, erasing, speed changing resulting in tape stretch, distortion, etc. The new system was christened the Librarian to designate its extensive musical capacity (about twice that of a typical radio station). In conjunction with the Librarian a music lease agreement was designed to meet the exact requirements of CATV transmission.

The immediate success of the new system produced several customers during the next three months. Not until these customers had fully evaluated the equipment did Tape-Athon actively promote the Librarian as a unit designed specifically for cable transmission application. In fact, the system was displayed as a CATV unit for the first time recently at the CATV convention in Washington, D.C.

President George Anthony agrees that the future of CATV is very bright. The opinions and expressions regarding the importance and function of music as an added service, as outlined by the speakers during the Washington convention, confirmed the direction in which Tape-Athon is concentrating research and development, and emphasizes our determination in, as Mr. Anthony puts it, ". . . meeting the demands placed before us by America's newest and fastest growing area of mass communication . . . the CATV-er!"

John Halvorsen, Tape-Athon advertising manager, George Anthony, company president, and composer-conductor Max Urban examine tape reel in firm's tape duplicating facility.

OUR MAN IN EUROPE

GORDON J. KING
Assoc. Brit. I.R.E.
Brixham, Devon, England

I was very happy indeed to have the opportunity to meet in person one of the key figures in the world of CATV over your side of the Atlantic. Mr. "Phil" Freen, the President of Benco Television Associates Limited arrived here at Brixham during one of the worst days this country has experienced so far this year! The normally picturesque views across the bay were totally obliterated by sheets of rain and a low mist. A day, indeed, when relay engineers stay in the workshop and realign the standby equipment.

The unkind weather made it impossible for me to show Mr. Freen some of our local coaxial relay systems, and it was a day when taking photographs was completely out of the question. Nevertheless, in spite of the weather our discussions were very enriching. I am sure that Mr. Freen will agree that our relay systems have very much in common — this being borne out by Mr. Freen's comment when observing full-scale wall plans of local relay systems "so very familiar."

It interested me to hear that in essence the wayleave problems for installing cables over your side are solved all in one go. A wiring concession granted by a local authority over here usually extends only to the erection of cables on property owned by the Council or authority. It does not endow the relay company with the right to erect cables or equipment on privately-owned property; neither does it give full clearance for the erection of aerial masts, aerial stations and control stations.

Although poles are used by the telephone and power authorities, permission is very rarely given for the use of these by the relay company. Indeed, pole routing of cables is deprecated over here and even the telephone and power people are removing their poles and putting the cables underground.

Permission to erect cable and equiment on private property can be obtained only from the property owners, and it is the practice to route the relay cables along the walls of the houses even though a householder may not require the service. This is the only way that we can achieve cable continuity. When a housholder requires the service, the idea is then simply to put a tap on the spur cable which is on his house.

Erection of aerial masts and buildings to house the equipment must have separate planning approval, and for overhead cables — which are often routed between chimney stacks on houses either side of the road—there are various local stipulations with regard to cable height, method of attachment and so on. Special permissions are also required for routing cables beneath roads, under railway bridges and under and over streams and rivers. It weighs heavily against a relay company if large sections of cable are routed overhead and, apart from supplying pictures of better quality than those obtainable off-air, it is vital that a relay system ultimately serves to enhance the amenities.

LINE POWERING

Supplying power to a medium or large relay system can be a formidible task, and an expensive one at that, if each repeater requires to be powered individually from the mains system.

Line powering has several distinct advantages over individual powering, and the former is employed where possible on Band I-only systems. This is not usually possible on ultra wideband systems where the large number of valves per repeater puts the power loading well outside the range of the cable conductors — in terms of voltage drop. Here a separate pair of conductors solely for mains power may be embodied in the coaxial trunk cable — a practice which is becoming progressively more popular in this country.

However, where the repeater loading does not exceed, say, 20 watts, line powering is adopted in most cases.

Here the repeater is powered from an internal auto-transformer which possesses a number of taps. One tap supplies the h.t. rectifier, another the series-connected valve heaters while further taps allow the transformer to be adjusted to suit the power voltage actually existing on load at the point of connection on the coaxial network.

All this is fairly straightforward and is almost certainly adopted on repeaters over your side. However, there is one extra aspect which so far I have failed to observe on your equipment and that is a "step-up" tap on the transformer used to feed line power out of the repeater into subsequent network.

Thus, on load, the line voltage may have dropped from, say, 65 volts r.m.s. to 50 volts at a particular repeater, and by using a step-up tap the voltage out of the repeater is restored to the original value of 65 volts. This works quite well in practice, but of course requires a power transformer of somewhat larger dimensions than would be necessary without the step-up feature.

One cannot gain line power, of course, and that dissipated in energising a repeater and across the resistance of the coaxial conductors is lost forever. But by stepping the voltage up again on the output network of a repeater, the subsequent line current is decreased although the effective power remains the same, and since the resistance of the coaxial conductors remains unchanged the voltage drop is less!

Transistorized

ALL BAND AMPLIFIERS ARE *HERE!*

After two years of extensive research and development, AMECO has produced a line of transistorized all-band cable-powered amplifiers that provide the most economical means of all-band CATV distribution possible.

Thoroughly tested and proven in the field, AMECO'S all-band transistorized amplifiers are operating in systems today!

The AMECO line of transistorized amplifiers and remote cable power accessories are ready for *Immediate delivery* !

ATM-50

TRANSISTOR MAINLINE AMPLIFIER

- 25 DB USABLE GAIN
- CASCADABLE
- LOW NOISE FIGURE (10 DB)
- 50-110 MC AND 170-218 MC BANDWIDTH
- EXTERNAL TILT AND GAIN CONTROLS
- CABLE POWERED OR DIRECT POWERED
- PROVIDES 24 VAC POWER ON OUTPUT FOR ATB-10 BRIDGING AMPLIFIER

only **$225.00***

ATB-10

FULLY TRANSISTORIZED BRIDGING AMPLIFIER

- 40-220 MC BANDWIDTH
- 3 DB PLUG-IN PADS
- COMES WITH 2 AND 4 OUTPUTS
- LOW NOISE FIGURE (8 DB With "0" DB PAD)
- 10 DB GAIN
- CABLE POWERED OR DIRECT POWERED
- PROVIDES DC POWER ON OUTPUTS FOR ATM-20 LINE EXTENDERS

only **$135.15***

ATM-20

FULLY TRANSISTORIZED CASCADABLE LINE EXTENDER AMPLIFIER

- 20 DB USABLE GAIN
- LOW NOISE FIGURE (6 DB)
- 20-220 MC BANDWIDTH
- CABLE POWERED OR DIRECT POWERED
- EXTERNAL TILT-GAIN CONTROL
- TEST POINT ON OUTPUT

only **$69.50***

*Subject to standard discounts

FOR FURTHER DETAILS CONTACT:

FIRST WITH TRANSISTORIZED ALL-BAND CATV EQUIPMENT

ameco

2949 WEST OSBORN ROAD
PHOENIX 17, ARIZONA

THE NATION'S MOST EXPERIENCED MANUFACTURER OF TRANSISTORIZED ALL-BAND AMPLIFIERS

I was very interested in the transistorized equipment developed by Mr. Freen's company (Benco). It seems to me that this has quite a big future in front of it for the smaller kind of system, but integrated into Benco's High Level Compatible Distribution System the applications are endless.

I have always been very much in favor of distribution at relatively low-level on low-loss trunk systems using transistorized repeaters (wideband) to provide, in effect, a loss-less cable network. Obviously, directly off such a trunk the power available is insufficient to feed a large number of subscribers, but if the trunk is used simply to drive high-level distribution amplifiers, then all is very well, indeed.

Subscribers require signal power as distinct from voltage gain, and the new idea of Benco's is to provide this by channelised high-level amplifiers providing in the region of 10 volts of signal per carrier. With the Benco system a single high-level distribution station provides a service area over some 285 acres — this being driven from a signal tap on a low-level transistorized trunk network.

Such an arrangement would be extremely difficult to match wide-band-wise on a multiplicity of carriers. Intermodulation would cause many headaches. With a system like that of Benco's only a single channel is directed into one amplifier system — other channels being highly attenuated by coupling filters.

Another major advantage is that a large-scale system could be completely sectionalized; and as intermediate distribution repeaters are not employed, there can be no great built-up of intermodulation and noise — these factors being a function essentially of the trunk network, but at low level should not present too much trouble.

I feel that such a system is far easier to handle with semi-skilled operators than an ultra wide-band arrangement.

We over here are also working on a system of that kind, and I shall have more to say about it in future reports.

To conclude this month's chat, I am pleased to report that my new book COMMUNAL AERIALS AND COAXIAL RELAY PRACTICE is now ready, and arrangements have been concluded with this publisher to distribute copies over your side.

LARGEST SALE IN CATV HISTORY

With more and more top money being poured into the CATV industry, it would appear that our fledgling is growing to a worthy 'bird in hand.' Witness this by the unprecedented $10,000,000 purchase of the nation's second largest block of CATV holdings. Purchaser of the systems is the Televents Corporation, a brand new firm, which has just embarked into the CATV field.

This huge assembly of CATV systems represents the largest single sale to date involving 18 systems in 10 states serving more than 43,500 subscribers. All were formerly owned by Mr. C. A. Sammons, Dallas, Texas, industrialist.

The purchase of the Sammons holdings was financed through a long-term loan of $5,500,000 handled by the Chase-Manhattan Bank, New York; issuance of $2,850,000 in debentures to institutional clients of John W. Bristol & Co., New York investment consultants; and private investors. The entire transaction was handled by Daniels & Associates, Denver, Colorado.

Televents Corporation has some very apt and capable management with the election of Mr. Alfred R. Stern as chairman of the board and chief executive officer. This selection registers a first in the CATV field since Mr. Stern, who has been serving as a vice-president of the National Broadcasting Company, will be the first major executive from the network level of broadcasting to enter CATV management.

Mr. Stern, a U.S. Air Force veteran, attended the University of North Carolina. Chicago born, the 40-year-old executive began with NBC in 1952 as project officer for TV programming and later in 1955 became assistant to Robert W. Sarnoff. In 1957 he was appointed chairman of NBC International Ltd., an NBC subsidiary. 1959 saw him elected as vice-president of NBC's Enterprises Division in charge of NBC International, Ltd.; NBC Films Inc.; merchandising and licensing of subsidiary program rights; sales of film prints to educational institutions and service groups; and NBC's theatrical activities.

Prior to serving with NBC, Mr. Stern was with Universal Pictures and RKO-Pathe. He is married, father of five children and resides with his family in New York.

Alfred R. Stern

Another selection brought Mr. Carl M. Williams into Televents Corporation as president and head of the CATV systems operations. He will be handling this end from offices in Denver, Colorado. Originally from Douglas, Wyoming, the 34-year-old lawyer is the son of a prominent rancher. A graduate of the University of North Carolina and the University of Wyoming's College of law he co-founded the firm of Daniels & Associates, Denver, Colorado. At present he is president of Systems Management Company, a position which he will continue to occupy. Mr. Williams is a U.S. Airforce veteran and member of the board of directors of the NCTA. He is married and makes his home in Denver.

The goals of Televents Corporation were briefly outlined by Mr. Williams. These included improved service, new and specialized systems and possible expansion to the overseas market. This aspect of CATV would be aimed for the European viewer and possibly Japan, according to Mr. Williams.

HAVE A PROBLEM?

For a real handy accessory, try Blonder-Tongue Laboratories, Inc., Do-It-Yourself slide rule. The rule comes in sheet form and can be assembled into the finished product in rapid order. It features a decibel to voltage conversion guide and a distribution system loss calculator. Available free by writing to Blonder-Tongue at 9 Alling Street, Newark 2, New Jersey.

LICENSEE OF WBOY-TV TURNED DOWN

By Commission memorandum, the FCC denied WSTV, Inc., licensee of WBOY-TV, petition action that would effectively hamper fellow TV broadcasters and/or CATV systems.

The rule-making request submitted by WSTV, Inc., suggested that licenses should be denied to those TV stations which permitted CATV systems, operating in a different community, to carry programs that were also carried by existing local stations in the CATV service area.

In addition or as an alternative, the request suggested that CATV systems be prohibited from carrying programs broadcast by TV stations in another community when the Grade A contour of that station covers the community served by the CATV system.

In replying to the request, the Commission stated they had no authority at present to effectively regulate CATV systems. Also that implementation of the proposed request would not be in the public interest, where the responsibility for program transmission was placed on the station licensees. The Commission added that a recommendation had already been sent to Congress regarding legislation which would vest in them express authority to regulate CATV systems.

COLLIER APPOINTS ENGINEERING DIRECTOR

Mr. Dave Willis has been appointed to the position of Engineering Director by Collier Community TV Company. Mr. Willis succeeds Mr. Robert L. Lewis who is now General Manager of the company.

The supervision of Collier's CATV systems and microwave network will be Mr. Willis' new responsibility.

His headquarters will be at the Sidney Community TV Company in Sidney, Nebraska.

NOTE:

This portion of Television Horizons is set aside for news of the industry as contributed by system planners and system managers. The convenient monthly reporting form, found on a perforated card in the back of TV Horizons this month, is designed to provide TVH with the data necessary to keep others informed of **your** activities during the past 30 days. Why not **make it a regular point** to fill in the card each month and drop it into the mail. There is no better way to promote industry cohesion than sharing your progress with others.

The Editor

SYSTEM NEWS

Televents of Aztec, New Mexico (Bill Little, Manager) reports his crews are busy installing new Times 708D cable and Phelps Dodge ½ inch cable. Over 7000 feet of 408D cable was added in 15 days during July, 1000 feet of Phelps Dodge cable. Work continues on the project which is replacing a total of 15,000 feet of Teleflex cable with the newer low loss lines. 15 new subscribers were added the last two weeks in July bringing the system's total to 908 sets connected.

Paper City Television Cable Corp., Berlin, New Hampshire (Richard L. Bleiss, General Manager) added two new Technicians during July and installed 18 Jerrold SCA-213 amplifiers. The system is converting from a 5 channel low band only operation to 12 channel SCA-213 operation. 10 new subscribers were connected during July, bringing the system total to 2880.

Irvine Community TV, Irvine, Kentucky (Jim Hayes, Executive Vice President) installed 1 WLA-88 line extender amplifier and 1,000 feet of Times 408D cable during July. 2 new subscribers were added as a result of the expansion bringing the system total to 270 paying now.

Jim Hays also reports his McKee, Kentucky system added 3 subscribers during the same 30 day period bringing that system's total to 111.

The Norway, Michigan CATV system, under the auspices of A. J. Marcell, Superintendent, installed 7 Blonder-Tongue UBC-26B amplifiers during July and added 26 subscribers to the system. 829 sets are now connected at Norway.

Central Multi-Channel Television, Ltd., of Red Deer, Alberta (Canada) plans to add closed circuit video to their 300 subscriber system in the next 12 months. The firm currently is using low band and subband channels, with a 300 foot tower on the receiving end of things.

Avenue TV Cable Company, Ventura, California is planning the addition of new channels to their present 8 channel system. The firm believes they have a potential subscriber total of over 2,000, with 950 signed up at present.

Systems under common ownership in Greenwood-Addison and Andover, New York are currently in the midst of expansion. A re-vamping program is underway in Addison and a new SKL system has just been completed in Andover. The potential for the three towns is described as 1,000 subscribers. 650 are currently signed.

The CATV system in Lucerne (Lake County), California is planning additional channels and closed circuit video. The open-wire line system is currently being replaced by a coaxial system.

FM additions are in the plans for the Athabasca, Alberta, Canada CATV system. The system uses Benco T-Amps and Rhombic antennas for their low band system. 140 subscribers are served . . . the potential is described as "around 300."

Montreal, Quebec, Canada's giant 24,400 subscriber system is going after the potential of 125,000 subscribers with 3 new channels. The system already originates closed circuit video on channel 9, and has some FM on the cable. Additional FM is planned, along with three new video channels, in the all-band system.

Transistor equipment is in the plans of the South Slocan, British Columbia (Canada) CATV system. With 40 subscribers presently, and a future of 50, the two channel system is planning to add transistor equipment soon.

HIGH LEVEL BROADCASTING

A recent report from H & B American Corporation reveals the many inadequacies posed by Satellite TV transmission. Among the items mentioned in the report, prepared for H & B by Richard G. Gould of the Stanford Research Institute, is the fact that this type of TV transmission becomes wholly impractical from the power requirement standpoint alone.

Not least, of course, is the economic problem involved. Such items as the power generating devices, launch vehicles, ground station equipment and the Satellite itself would cost altogether too much to be feasible.

In his factual report, Mr. Gould mentions the programming problems. For instance, in covering approximately one-third of the globe, capability of a normal Satellite approaches this figure, no less than eight time zones are involved. To further add to the problem is the various languages encountered and the different broadcasting standards from the United States 525 line system.

THE STRAW TO BREAK THE BBG BACK?

Until now the Board of Broadcast Governors in Canada has respected the fact that CATV systems do not come under the definition of broadcasting as set forth in the Canadian Broadcasting Act. So, the BBG has maintained a "hands-off" policy for wired TV systems throughout the Dominion.

The Board's 1961-62 Annual Report, however, issued the first week in August, carries a warning to CATV promoters that many are assuming to be the predecessor of possible stepped up BBG interest in CATV.

Said the BBG "Of particular concern to the Board are plans now envisaged by western Canadian promoters to establish cable connections across the international boundary with United States network stations in the United States and in other ways to extend further the signals of U.S. stations into Canada. If such boundary crossing cables are laid and the American programs are piped into Canadian homes, for a fee, without some measure of control, this could help to defeat the Canadian content provisions of the Broadcasting Act. The Board feels that Parliament might re-examine the legislation to ensure that extension of service from U. S. station will not defeat the domestic broadcasting objectives."

TPT ANNOUNCES NEW LARGE-SCREEN TV

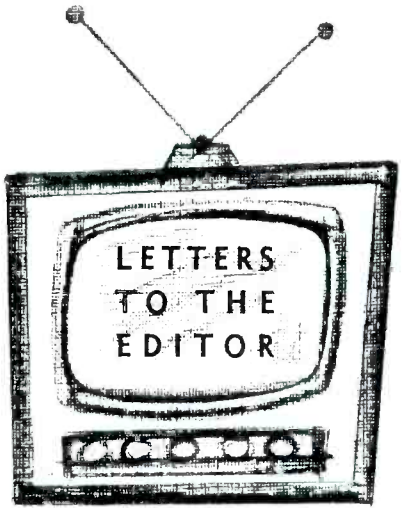
TelePromptTer Corporation has introduced a new low-cost large screen video projection unit for both community viewing and custom home installation use.

The Amphicon 190 unit weighs only 70 pounds, and is smaller than most commercial home receivers, according to TPT. List price is $1655.00, less than half the cost of similar units now on the market. The "190" provides satisfactory pictures up to 12 feet in width, and brightness and illumination have been measured at 8 foot lamberts and 4 foot candles, respectively, on an 8 foot wide picture.

Information on the unit is available from TelePhompTer at 50 W. 44th Street, New York 36. N.Y.

VERMONT WANTS STATEWIDE UHF SYSTEM

The Commission has invited comments on a proposal by the University of Vermont which would establish a UHF statewide educational system in that state. The petition asks that channels 49 in Rutland and 30 in St. Johnsbury be reserved for educational use (both are earmarked for commercial use presently); that Burlington's educational channel be shifted from 16 to 22 in Burlington; that channel 26 be assigned for educational use for Windsor by deleting that commercial channel from Hanover, N. H., and New London, Connecticut. Engineering planning for the system is now underway through a Ford Foundation grant.



THANK YOU

"Your policy of favoring CATV in your last issue was most gratifying to me. I think this was a wise decision on your part. and your thinking on this clearly reflects the national trend on the future of CATV."

"I do think that CATV operators are vitally interested in all phases of television and should be kept informed of what is happening in competitive fields. Your publication can render us a great service in this respect."

"Your magazine is excellent. I can hardly wait for each issue. I read every word — cover to cover."

James H. Hays, Jr.
President
McKee Television Enterprises
McKee, Kentucky

Mr. Hays:

Many thanks to you.

The Editor

AND

"We notice from the editorial in the July issue of TV Horizons that this magazine no longer serves translator operators. Since Mono County TV Corporation operates both a community antenna system and a translator station we are interested in both and more particularly in translators. Do you still publish a magazine for translator operators?"

F. C. Roberts, President/Engineer
Mono County Television Corporation
June Lake, California

Mr. Roberts:

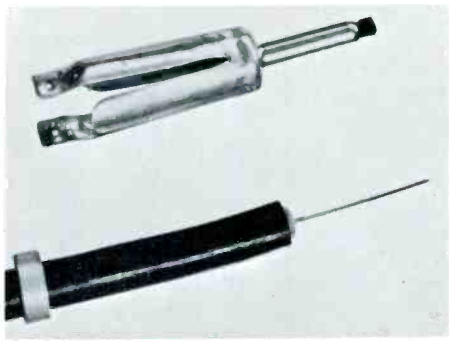
We no longer publish any translator info.

The Editor

AUTO-TYPE SOLDERLESS PLUG

A new, durable solderless plug has been introduced by Blonder-Tongue Laboratories, Inc. Applicable to CATV and other electronic systems, these auto-type plugs are described as a major advance over conventional methods of co-axial cable attachment.

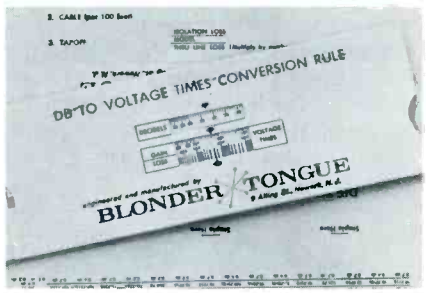
Connection to co-axial cable is facilitated by small teeth inside the connector which bite into the cable during the crimping process. By nature of the fitting design, the task of wire stripping is reduced to an easy operation, taking only a matter of seconds to complete the entire connection.



New auto-type solderless plug

SOPHISTICATED SLIDE RULE

A complete system calculator and conversion guide is currently available in ready-to-use form from Benco. Nominally priced at $1.00 the slide rule features a very complete conversion guide plus a more complete CATV system calculator. This item is available from Benco Television Associates Limited, 27 Taber Road, Rexdale, Ontario, Canada or Blonder-Tongue Laboratories, Inc., 9 Alling Street, Newark 2, New Jersey.



Do-It-Yourself Rule. See page 17.

2000 MEGACYCLE EDUCATIONAL TV

The FCC has recently proposed that a new class of service be established to promote educational television. Spectrum allocations would exist in the 1990-2110 Mc or 2500-2690 Mc band to enable transmission of ETV material to scattered local schools.

The justification for the proposal was based on monetary savings. Actual costs were not available but an estimate on a single channel system serving 25 schools indicated it would cost from one-fifth to one-third less than a moderately powered TV transmitter. In addition, it was stated that this system would be less costly than CCTV and microwave relay systems.

FOR SALE:

Three Adler USTA-16S transmitting UHF antennas, 4 antennas on each stack. Like new, cost $3600.00, will sell half-price.
Write:
Palm Springs Translator Station
1184 Camino Mirasol
Palm Springs, California

NEW ANTENNA COUPLER

A new series of low-cost antenna couplers has been announced by The Winegard Company, Burlington, Iowa. These 300 ohm couplers allow combinations of antennas to be installed on one mast with but one transmission line necessary to feed signals to the TV receiver.

The hi-impact cased units can be used to couple one or more single channel, high or low band yagis, with any other broadband or all-channel antenna.

BLONDER TONGUE ANNOUNCES CLOSED CIRCUIT UNITS

A new Waveform Monitor for closed circuit television system studios has been announced by Blonder Tongue Labs, 9 Alling Street, Newark 2, N.J. Listing at $1750.00, the device is known as the model FWM-5.

The FWM-5 is designed for professional systems employing EIA standards. It features a five-inch oscilloscope screen with either two horizontal or vertical fields displayed for the operator board man. The unit mounts in a standard 19 inch rack.

Blonder - Tongue simultaneously announced that its CCTV department has developed a series of turrets and attachments designed for quick camera lens changes and focusing.

A manually-operated turret, model HT-10, is an attachment for Blonder Tongue transistorized TV camera model TTVC-1. It will hold up to four "C" mount lenses.

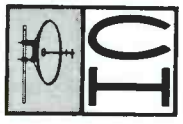
A remote-control model of a similar turret, designated Model RT-10, has also been introduced. Price is $395.00.

A motor driven remote control for the focusing control, priced at $227.00, has also been introduced. It's designated model RF-10.

Blonder-Tongue also introduced a new Projection Video-Monitor, capable of projecting a large, high-quality TV picture onto a screen. The unit arrives ready for operation without any need for additional optical equipment. Designed for dolly or ceiling mounting, the unit is equipped for remote control operation. Model PVM is priced at $3995.00.

on other horizons this month:

You know, there's just a chance that you might *not* know that we here at Horizons publish a number of other electronics specialty magazines. Just as TELEVISION HORIZONS covers the field of weak-signal television reception and the cable industry, our other magazines provide complete coverage of the non-broadcast communications field (including microwave), the history-making VHF/UHF ham radio area, and the fast-growing CB radio industry. Here's what's appearing in the current issue of each of our other magazines on other horizons:



The September issue of Communication Horizons features a thought-provoking article by the president of a California systems engineering firm on remote control of vehicles and/or processes by means of radio; a report on the MMM fuel-cell power plant now available for user purchase; an analysis of the effects of the death of Conelrad; and all the regular departments including Logbook, Milestones, and late word from Washington concerning FCC rules changes.

September is for Sideband in VHF Horizons. In the Sideband Special issue, you'll find construction details on four VHF Sideband transmitters, including a filter rig for 50 Mc, a phasing exciter for 144 Mc, a double-sideband transmitter for 50 Mc, and a "Transceiverter" to allow mobile SSB on 50 Mc with popular commercial tranceivers. In addition, there are all the usual features including Scanning the Literature, TVI and VHF, late word from Washington, the Showcase, and Lab Reports.

September's issue of CB Horizons has a heavily technical air, with a discussion of audio shaping techniques, modifications for the Lafayette HE-15A transceiver, a homebrew antenna, troubleshooting charts for all transceivers, and a number of smaller features. In addition to all the technical talk, there's a discussion of Business Band radio, a description of USCGA use of CB radio, and the regular features: CB in South America, the Showcase, Lab Reports, CCM contributions, and Channel 24.

It's been our experience that many readers of one of our magazines also have special interests in a field covered by another Horizons publication — yet don't know that the other magazines exist. If you would like a sample copy of the latest issue of any of these publications, together with either subscription or advertising data, just drop a postcard to Promotion Department, Horizons Publications, P.O. Box 1557, Oklahoma City 1, Okla. We'll take care of it from there.

HORIZONS HP PUBLICATIONS

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