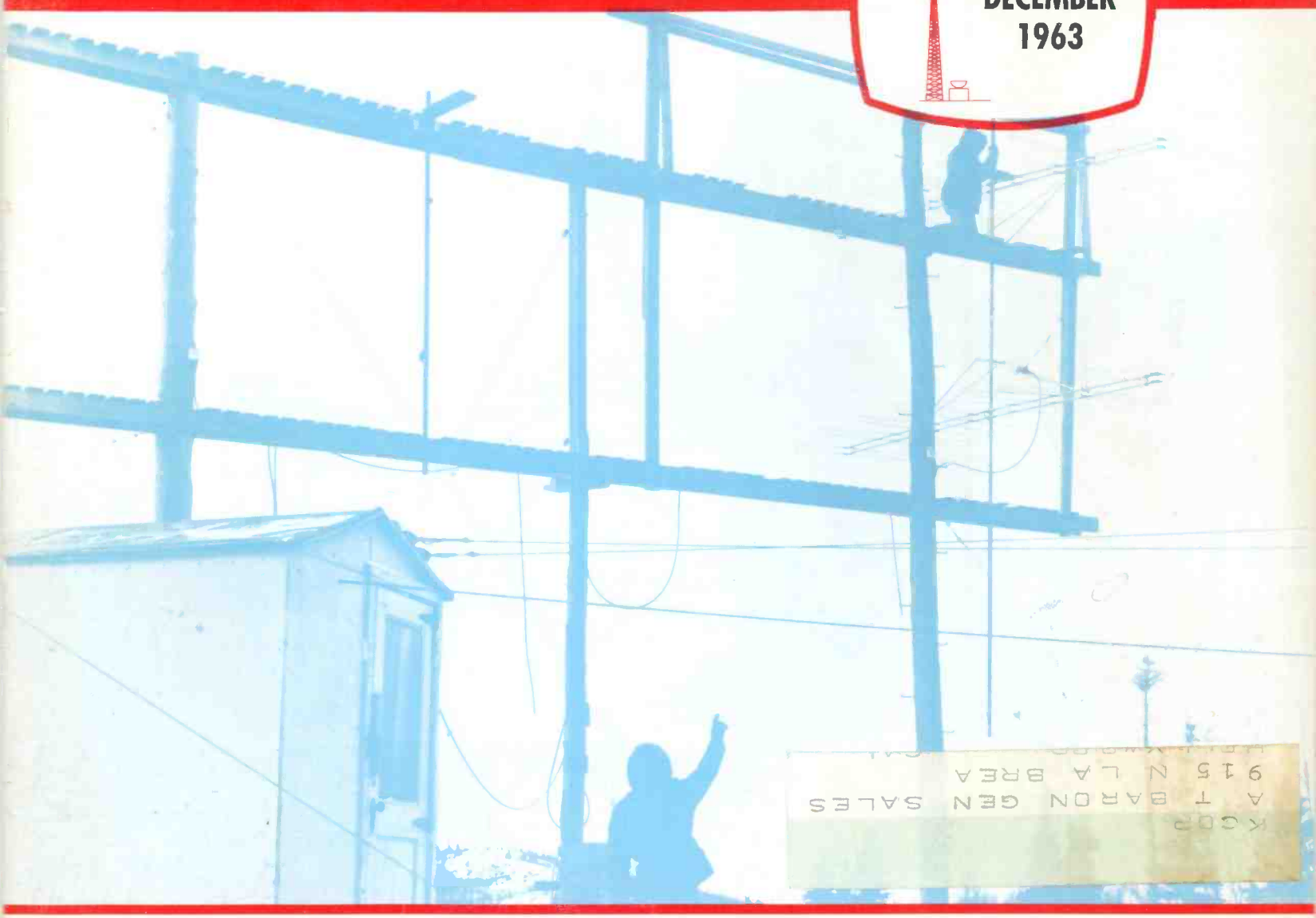
$5.00 per year

Video Communication Journal

DECEMBER 1963



Serving the Audio-Video Communications Industry

IN THIS ISSUE

- WHAT ABOUT PAY TV?
- LOWEST NOISE PRE-AMP
- HANDLING THE PRESS

JERROLD makes 12-CHANNEL CATV

system capability easy to achieve

Today's CATV markets require and demand more programming, more channels, better picture quality, and a greater degree of system reliability than ever before—advantages that can only be gained through 12-channel capability.

The simplest, surest way to 12-channel capability is through Jerrold experience and equipment. With engineering know-how unparalleled in the CATV industry, and an unsurpassed record for equipment performance and reliability, Jerrold can make your expansion of service or your new installation rapid, easy, free of worries.

Acquaint yourself now with all the facts on Jerrold 12-channel system capability. Call your Jerrold man today, or write Jerrold Electronics, Community Systems Division, Philadelphia 32, Pa.

JERROLD ELECTRONICS

Channel 1

THEATER OWNERS TO FIGHT STV

Some $500,000 has been collected for a declaration of war on pay television (STV) in California, according to an announcement made by the Theater Owners of Calif.

Pay television is coming to California in 1964, in Los Angeles and San Francisco **(see separate report, page 9 this issue)** and the theater owners of both northern and southern California intend to see that it has less than an even chance for survival.

The "Crusade for Free TV" has opened offices in San Francisco (988 Market Street) and Los Angeles (8255 Beverly Blvd). The group plans a "broad organized front of similarly affected businesses, industries, clubs and organizers to preserve free television, by ballot if necessary, in Calif."

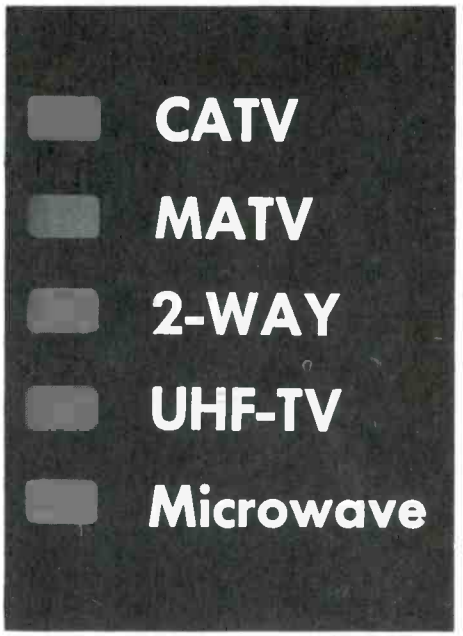
Legislation approving pay television systems in California is already a matter of record.

COMMISSIONER TOLD "VISIT A CATV SYSTEM"

A former broadcaster and present day owner of a Santa Barbara, California CATV system, Harry C. Butcher, has taken issue with joint Commissioners Robert E. Lee and Kenneth C. Cox's dissent in a recent FCC Texas CATV microwave decision.

Commissioner Lee suggested, in his dissent, that CATV operators install "switches on the back of CATV system subscribers' receivers so that they could watch both the cable programs and the off-the-air programs." The Commissioner was perturbed, in his dissent, because he discovered that CATV systems, when connecting CATV drop lines, usually are forced to disconnect the line to the subscriber's outside antenna. "This," he charged, "makes viewing of the local station, which probably is not offered on the cable, very poor at best."

CATV operator Butcher took the Commissioner to task because



". . . installation of a switch only serves to bring the two signal sources together, resulting in a mixture that spoils the pictures."

Butcher went to considerable engineering detail to point out what happens when the two high-level sources are kept in proximity to the receiver's antenna terminals, pointing out that one or the other has to go — at least ten feet — to keep radiation from one from spoiling the other.

Left unsaid was the obvious point. When the subscriber is paying for use of a master antenna system, he prefers to get his money's worth. So the CATV drop stays connected and the outside antenna usually comes down.

WENTRONICS FILES APPEAL

Wentronics, Inc. has filed with the United States Court of Appeals for the District of Columbia a notice of an appeal from a decision of the Federal Communications Commission.

The decision handed down by the Commission, and an appeal to same subsequently turned down by the Commission, deals with the question of entering into "30 day prior and subsequent non-duplication agreement" with TV stations carried on a CATV system and local TV stations, as a **condition** to a microwave grant in the Business Radio Service by the Commission.

The appeal challenges the legality of the condition and questions the authority under which the Commission acted.

The 4 points in the Wentronics appeal involve:

(A) The condition attached to the radio authorizations is an unlawful action constituting an effort to extend the Commission's authority beyond its statutory jurisdiction.

(B) The condition attached to the radio authorizations constitutes a form of censorship and interferes with rights of free speech and, therefore, is violative of section 326 of the Communications Act of 1934.

(S) The condition attached to the radio authorizations constitutes an abridgement upon the freedoms of speech and press and is violative of the First Amendment of the U.S. Constitution.

(4) The condition imposed upon the radio authorizations is violative of the Fifth Amendment to the United States Consititution in that it deprives appellant of liberty and property without due process of law.

GEORGIA BROADCASTERS STILL WATCHING

The Georgia Association of Broadcasters is still keeping its "watch-dog eye" on CATV developments in that state, and advising members to "be alert." In a recent issue of thir weekly newsletter, GABCAST, an item appeared as follows: "GAB'ers should be alerted to two new CATV developments. A huge system is proposed to bring Atlanta signals to Milledgeville, Dublin, Valdosta, Douglas, etc. It is owned by a Maryland outfit. A CATV (system) will go into operation very soon in Warner Robins."

GAB watches the CATV'ers. And the CATV'ers watch GAB. **Some fun!**

DECEMBER 1963
Volume 4 — Number 12

VIDEO-COMMUNICATION JOURNAL

Combining Television Horizons and Communication Horizons

PUBLISHED MONTHLY BY HORIZONS PUBLICATIONS
Post Office Box 1557 • Oklahoma City 1, Oklahoma

Editorial

This issue of the Journal includes a detailed report on the progress of STV, Subscription Television, in Los Angeles and San Francisco, California. That STV will be more than a flash in the pan seems a virtual certainty. And CATV industry leaders are soberly watching this latest plan to bring wired vision into American homes.

A major cause for concern is the very real problem that STV and similar projects may contribute measurably to an already serious industry problem — the lack of competent, trained manpower to staff the increasing number of CATV and MATV operations across the continent.

Just how acute is the personnel shortage in master antenna and community antenna television? Any operator can apparently find a half dozen fellows to string cable and attach drop lines. But too few operators have been even remotely successful in recruiting skilled, knowledgeable men who can actually step in and manage a CATV operation.

The NCTA Annual Management Seminar, held at the University of Wisconsin each summer, is a bold step in the right direction. But it is geared to turning out *better* leaders, not *new* workers.

Where does the solution lie? Well, the one sure thing is that ignoring or concealing the manpower need is *not* the answer. Somehow the CATV-MATV interests need to publicize the excellent employment opportunities available in this bright, young industry. This is already being accomplished, to a large degree, through the expanded circulation of this publication. Across the nation, engineers and management people in two-way communications and microwave are being exposed to CATV and related fields through "VCJ." Their personal interest in "wired television" is encouraging.

It remains certain, however, that every available means must be utilized in order to adequately staff the growing CATV industry.

CONTENTS

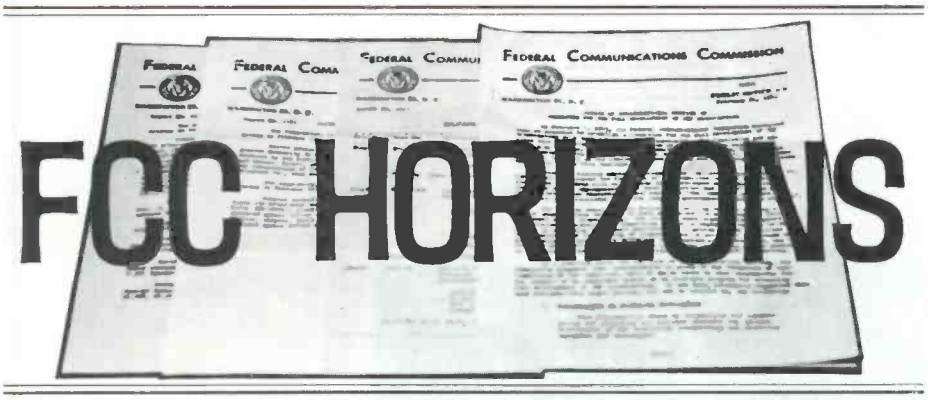
FEATURES

DEPARTMENTS

Video-Communication Journal (title registered U. S. Post Office) entered as second class postage material (as Television Horizons) December 30, 1960. Second Class Postage paid at Oklahoma City, Oklahoma. Address of Publisher in Oklahoma City is 1025 N. Broadway.

IN MEMORIAM

To the late John Fitzgerald Kennedy, 35th President of the United States of America, the publishers and staff of Video-Communication Journal pay tribute. He was a champion of peace and good will; a courageous leader of freedom's forces in the world. The memory of John F. Kennedy, our beloved President, shall remain in the hearts of all of us.



FCC actions, applications and public notices reported in this column are a representative sampling of the latest developments which in the opinion of the staff of Video-Communications Journal are of interest to our readers. The information reported is by no means a complete tally of all FCC actions in or out of the allied fields of communications.

GENERAL ACTIVITIES

The FCC has adopted a new form (FCC Form 330P) to be used by nonprofit educational organizations in applying for authority to construct a new Instructional Fixed Station or to make changes in an existing station on channels in the 2500 to 2690 megacycle frequency band. The form is essentially the same as FCC Form 340 used by nonprofit educational organizations in applying for a noncommercial education television, FM or AM broadcast station, except that it is tailored to elicit information pertaining to transmission and other non-broadcast characteristics of the 2500 megacycle service.

Commissioner Robert T. Bartley has announced the apointment of Clinton M. Barrick as his Engineering Assistant. Mr. Barrick replaces Neal K. McNaughten who recently became Chief of the Emergency Systems Division of the Office of Emergency Communications.

Mr. Barrick joined the FCC in 1942 as a radio operator in the war-time Radio Intelligence Division at Santa Ana, California. Since 1953 he has been with the Commission's Washington Broadcast Bureau.

FCC Report 4842 details at some length a proposal by the Commission to make permanent the Midwest Program for Airborne Television Instruction (MPATI). Comments are invited by January 3, 1964.

Some of the highlights of the Commission request for comments are these questions, posed by the Commission to the industry and public at large:

(A) Should such rules for permanent establishment of this service be only for the area proposed by the midwest group or should channel allocations be considered for the nation as a whole?

(B) What are the minimum and maximum number of channels required for a successful operation in the area proposed by MPATI? For a nationwide system?

(C) Is it technically feasible to design and install six channel television in a single aircraft.

(D) How many additional channels will be required for repeaters or translators to supplement the airborne broadcasting, and what frequency band will they occupy?

(E) Is it technically feasible to conduct MPATI type operations in the new 2500 to 2690 megacycle educational television band?

(F) If the 2500 to 2690 megacycle band is feasible, what additional costs are involved for both transmitting and receiving?

(G) If the airborne operation in the midwest were programmed for evening home viewing, how would the costs to airborne be born and would the reception be of sufficient strength to permit normal home viewing?

(H) To what extent would FCC UHF propogation curves have to be modified, from a separation-allocation standpoint, for co-channel operation of simultaneous airborne installations at several points around the country, to meet a nationwide airborne telecasting program?

TELECAST ACTIONS, FILINGS

WDAU-TV, channel 22 in **Scranton, Pennsylvania** has been granted a permit to change its effective visual radiated power from 447 kw to 912 kw, and to directionalize its antenna's horizontal radiation pattern so as to provide a maximum horizontal lobe visual power of 1700 kw and a maximum vertical lobe radiation power of 3710 kw.

Bi-States Company, Superior, Nebraska has filed an application to establish a new channel four (4) television station at Superior with an effective visual radiated power of 25.1 kw. The station would operate as a semi-satellite of station KHOL in Holdredge, Nebraska. Height of the antenna above average terrain would be 1107 feet.

P. H. Incorporated, Utica New York has filed an application to build a UHF television station on channel 54 with a visual effective radiated power of 4.34 kw and an antenna height of minus 140 feet below average terrain.

Reynard L. Osborne of **Portsmouth, Ohio** has filed an application to construct a UHF television station on channel 30 with an effective visual radiated power of 20.5 kw and an antenna height above average terrain of 503 feet.

KNOX-TV, channel 10, **Grand Forks, North Dakota** has been granted partial permission to modify its license and specify operation from Thief River Falls, Minnesota.

St. Cloud State College, St. Cloud, Minnesota has asked the Commission to reserve UHF channel 14, presently assigned to St. Cloud, for noncommercial educational purposes.

The **Regents** of the **University of California, Santa Cruz, California** have asked the Commission to reserve UHF channel 56, presently allocated to Santa Cruz, for non-commercial educational purposes. Lacking permission for this proposed allocation, the school regents ask for a new channel assignment marked for noncommercial use to be moved to Santa Cruz.

The **Arkansas Educational Television Commission, Little Rock**, has asked that VHF television channel 9, now allocated to Hot Springs, be ear-marked for non-commercial educational use.

CATV MICROWAVE ACTIONS

Telephone Utilities Service Corporation, Killeen, Texas has been granted a construction permit for a new fixed video chain of 6 Gc stations to television programs from stations KRLD, WFAA and KTVT (Dallas), for service to the Tele View System in Lampasas, Burnet and Copperas Cove, Texas. Through power dividers, the signal of KLRN (San Antonio) will also be provided to the KBC Corporation at Killeen, and the signal of KTVT will go to Cable-Vision, Ltd. of Gatesville, Texas, a CATV system.

Columbia Basin Microwave, Moses Lake, Washington has filed an application to power split an existing installation near Ephrata, Washington to feed the programs of television stations KREM, KXLY and KHQ all Spokane, to a proposed new receiving site in the City of Othello, Adams County, Washington. The application also proposes to provide for the simultaneous transmission of station KCTS, Seattle and station KING, Seattle, to the receiving site at Othello. A CATV system is contemplated for Othello.

Television Microwave, Inc. of **Elko, Nevada** asks for a construction permit for a new 6Gc fixed video station on Mt. Palomar, northeast of Escondido, California to bring the television programs of the non-network television stations KHJ, KTTV, KTLA and KCOP, Los Angeles to an existing CATV system.

The Commission has warned **C. E. Davidson**, doing business as **Columbia Communications Company, New Orleans**, that it plans to withdraw that company's authorization to operate a fixed-video relay system feeding a single CATV subscriber located in Bogolusa, Louisiana. The cancellation comes about as a result of a cancellation filed by the microwave company's second CATV subscriber, Columbia Video Cable Company, Columbia, Mississippi, leaving the 6Gc system with only one customer, one too few for continuation of the 6 Gc microwave service. The microwave company was presented with a 30 day opportunity to show cause as to what public convenience or necessity warranted a continuation of the system under the present ½ load requirement schedule.

Potomac Telecasting Corporation, Cumberland, Maryland has filed an application for a new construction permit to add power splitting equipment to an existing microwave CATV feeding system to transmit five channels of television to a new receiver point at Frostburg, Maryland. The present system feeds a CATV system in Keyset, West Virginia.

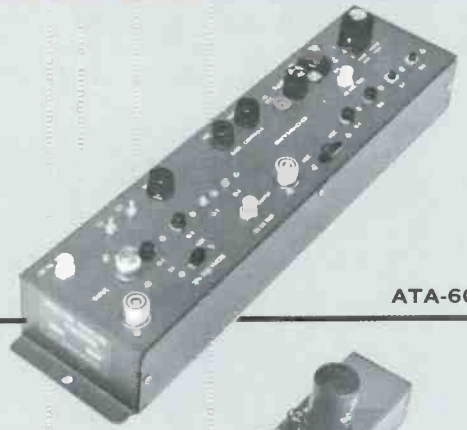
TELECASTING GRANTS AND APPLICATIONS

Platinum Coast Broadcasters, Inc., of Gainesville, Florida have filed an application for a construction permit to build and operate a 16.8 KW (visual) transmitter on channel 20. Height of the proposed transmitting antenna is 273 feet above average terrain.

ameco

First name in TRANSISTORIZED CATV SYSTEMS

By remote cable powering the amplifiers, and by using Ameco's AHT-1 housing, many dollars are saved in system construction. Costs of clearing poles for power, and costs of mounting conventional bulky amplifier housings are greatly reduced in an Ameco fully transistorized system. These savings, when combined with drastically reduced maintenance and electric bills, will allow you to pay for Ameco's transistorized amplifiers with savings alone, in a surprisingly short time. Mail the attached coupon for complete details on our *thoroughly field tested* transistorized equipment.

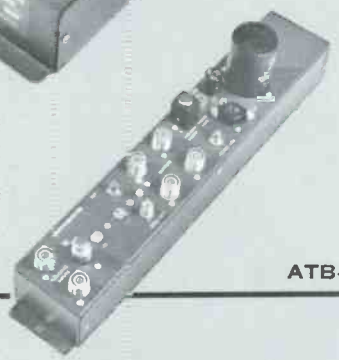


ATA-60

TRUNK LINE AMPLIFIERS

Ameco's sensational fully transistorized trunk line amplifier with AGC and *automatic tilt compensating* control. Special components used in the circuitry of the ATA-60 provide amazing temperature stability of *better* than ±1 db through temperature range −50°F to +160°F. The AGC will hold output constant within ±1 db for a ±8 db swing on the input. The special tilt circuit compensates automatically for cable response variations, whether due to temperature changes or differences in cable length. It is effective through a 15 db to 25 db spacing range.

PRICE $395.00

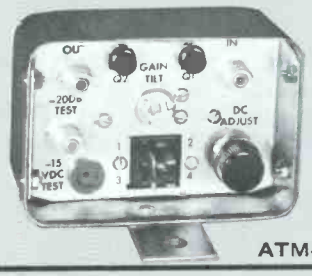


ATB-10-C

BRIDGING AMPLIFIERS

The ATB-10-C is an all-band transistorized bridging amplifier providing four isolated feeder outputs from a single input signal. It is remote cable powered from the 28 VAC Ameco ATPS Power Supply, or from the output of a transistorized trunk line amplifier. The ATB-10-C supplies filtered, regulated DC power on its feeder line outputs for remote cable powering line extender amplifiers. All Ameco transistorized bridging amplifiers feature matched inputs and outputs, and plug-in pads on inputs.

PRICE $135.15



ATM-20C

LINE EXTENDER AMPLIFIERS

Remote cable powered version of the most versatile all-band amplifier ever designed for CATV. The ATM-20C is cascadable and can be mounted on the pole or messenger mounted. Ameco line extenders can be remotely powered from the output of ATB-10 series bridging amplifiers, or from the ATPS-25 and ATPS-20 power supplies. Thousands of ATM-20 series all-band transistorized amplifiers are in use throughout the CATV industry, providing long, stable, trouble-free service for hundreds of CATV operators.

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ATPS

REMOTE POWER SUPPLIES

A regulated 28V AC supply with a total of 6 Amp. capacity on two outputs, the ATPS is used to remote cable power the Ameco fully transistorized trunk line amplifiers and companion units. Capable of constant voltage output with changes of input voltage from 95V AC to 130V AC, the ATPS will power 20 various Ameco transistorized amplifiers with a power consumption of less than 300 watts. RF insertion loss is ½ db maximum. Dimensions 8" x 10½" x 8" high.

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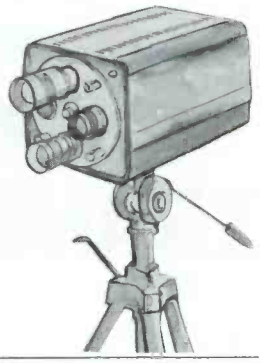
SYSTEM HORIZONS



PEOPLE . . .

Shure Brothers, Inc., Evanston, Illinois manufacturer of microphones and electronic components for communications purposes, has announced the appointment of Robert W. Carr as manager of their new Professional Products Division.

Under Carr's direction the new division will specialize in special products for the radio and television broadcasting fields, commercial recording industry and other allied industries requiring professional sound reinforcement. In addition, the new division under Mr. Carr will be responsible for supplying technical and engineering assistance in the foregoing applications.

Carr is a 15-year employee of Shure. He was the former Manager of Development Engineering for the firm.

Roger E. Steiger has been appointed Manager, Customer Service, at **Polytronics Laboratories** in West Caldwell, N.J.

Polytronics is a manufacturer of two-way radio equipment for business and citizens services.

Mr. Steiger has been associated with Polytronics since 1961. Before that he was associated with Warner Engineering, Upper Montclair, N.J., doing field work in commercial radio telephone systems.

James J. Sullivan has been appointed to the post of director of manufacturing at **Paradynamics, Inc.,** Huntington Station, NY.

Mr. Sullivan brings to Paradynamic 25 years of experience in production of microwave equipment and systems. Paradynamics specializes in microwave equipment.

Promotions designed to strenthen the field force have been announced in San Francisco by officials of the Telecommunications Division of the **Secode Corporation.**

Frank Schulenberg has been named National Field Sales Manager and Leo Best has been promoted to Manager, Marketing Services.

Mr. Schulenberg, previously an electronics engineer with the Navy Department and at one time associated with Motorola and ITT

(Continued — page 33)

WESTBURY

LEADS AGAIN IN TRANSISTORIZED EQUIPMENT

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ALL-SILICON ALL-TRANSISTOR ALL-BAND

DISTRIBUTION SYSTEM

with stability that lets you forget temperature variations forever

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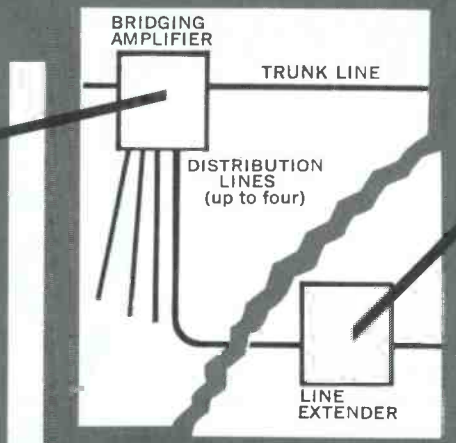
- 48 DBMV Two Outputs*
- Smooth response, tilt control
- Covers sub-channels through Ch. 13
- 5 Silicon Transistors
- Built-in lightning protection

* Eight Channels



Model LEX

LINE EXTENDER

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- 20 DB Gain
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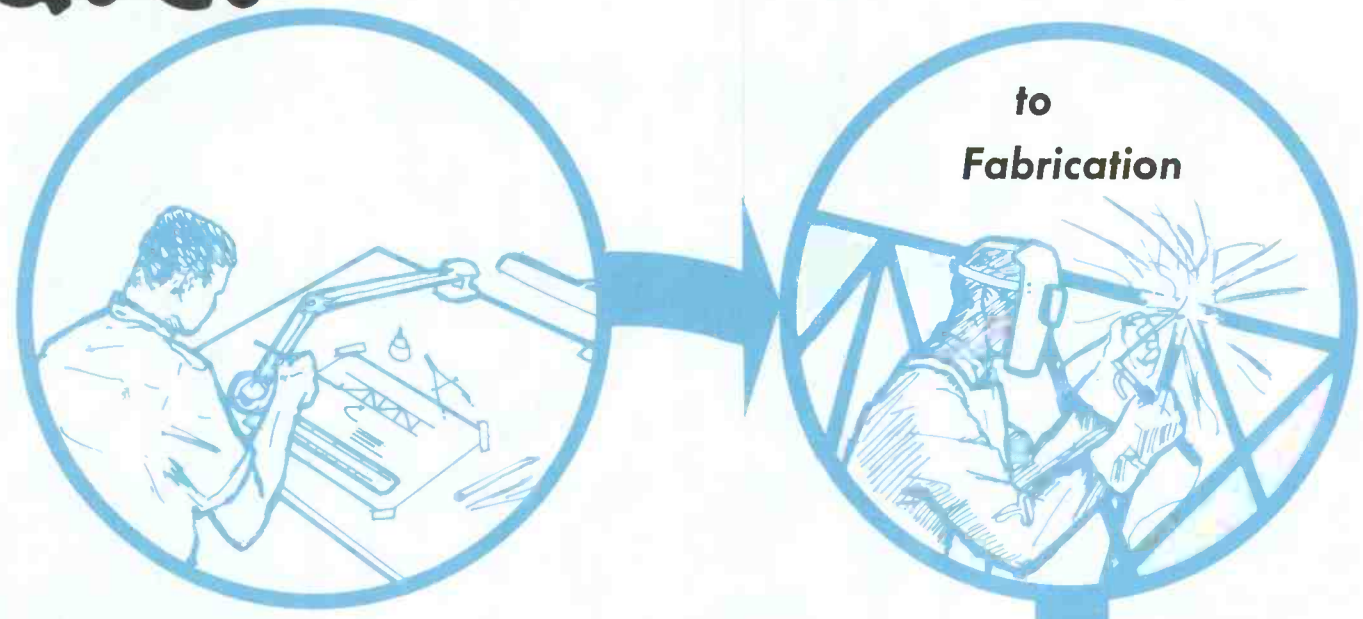

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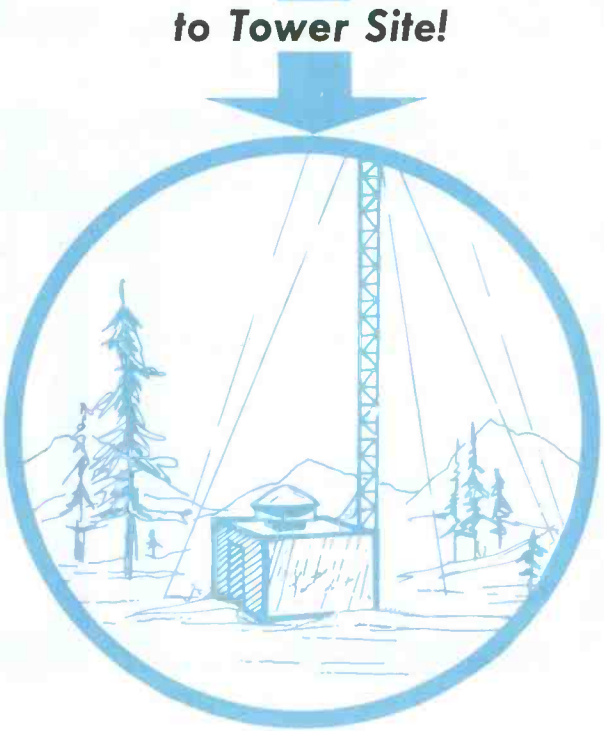

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$TV

Heads, They Win . . . Tails, We Lose?

The October, 1963 issue of this journal carried an early report on a pay-television system (called **STV-Subscription Television)** slated for operation in the two largest west-coast market areas (Los Angeles and San Francisco) before the end of 1964.

Following preparation of that report, substantial additional information has become available.

This is a report on those additional details of the proposed operation, as have been released by the STV enterprise as of press time.

BASIS FOR SYSTEM

2,200,000 shares of common stock, valued at a par value of $1.00 per share, will be offered through 61 stock brokerage firms across the country. Offering price per share will be $12.00.

To be subtracted from the 2,200,000 shares authorized for sale by the company are 300,000 shares to be sold directly by STV to certain shareholders in the company. Any such shares not purchased by those designated officers and directors of the company will be offered to the public.

The remaining 1,900,000 shares of common stock have been accounted for, to a share, by 61 underwriting firms. Pledged purchases run the gamut from 500,000 shares to William R. Statts & Company (Representative for STV, Inc.) down to 4,000 shares committed to five underwriting firms in the east and midwest.

The entire sale of the stock certificates is being made on a "speculative" basis. Based upon the complete sale of all outstanding stock shares, the firm will raise more than $28,560,000.

STV intends to present sporting events, current movies and cultural and other special attractions to subscribers over three video channels in a closed circuit coaxial cable network to be leased by STV from the telephone companies serving the regions to be included in the STV service area.

A program selector to be installed on the premises of each subscriber will enable the subscriber to choose among three television programs or background music during the hours of operation.

The STV system will not interfere with the customer's normal reception of television broadcasts and will not require any modification of the subscriber's television receiver. Each subscriber will pay a fixed weekly charge (tentatively set at $1.00 per week (plus a program charge for each STV program he views. Additionally, there will be a deposit or connection charge of $10.00 per unit. Centrally located interrogation equipment of STV will, through dissemination and reception of coded electronic impulses fed back to the central office from each subscriber's receiver, record each subscriber's use of the system and will provide STV with the data for automatic preparation of a monthly bill to each subscriber.

Existing coaxial cable facilities of telephone companies in whose territories the STV system is to be operated cannot be used for the system, and a new cable system must therefore be installed by the telephone companies. Initial engineering studies of the physical problems involved in installing such a system have already been made through a $14,000 contract with the Pacific Telephone & Telegraph Company. Both PT&T and the General Telephone Company have been requested to make detailed engineering studies of segments of the Los Angeles area encompassing approximately 13,000 dwelling units each. The two studies are expected to be completed before the end of 1963 and will provide the basis for STV to enter into contracts with both firms for the installation of the initial systems.

STV has made advance partial payments of $50,000 to PT&T and $75,000 to General Telephone. This deposit is to cover the cost of the coaxial cable network and subscriber drop lines in each area as the system is expanded. It is further expected, subject to complete final negotiations with the telephone companies, that the deposits against the cost of the cable and drop lines, will be refunded to STV at the rate of 1/120th per month plus interest at 6% per annum until repaid. The telephone companies are required to file contracts or tariffs with the California Public Utilities Commission relating to such monthly charges, and changes in such rates may be directed by

the Commission in the exercise of its jurisdiction over the telephone companies.

STV has entered into a contract with Lear Siegler, Inc. (LSI) under which LSI is to provide system engineering management services, is to perform research and development services with respect to program selectors and interrogation units and is to supply program selectors, interrogator units and plug-in modules for the expansion of interrogator units as the system needs expand.

20 preproduction program selector units are to be shipped by LSI to STV on December 10th, 1963.

20,000 program selector units are to be supplied by LSI to STV before March 26, 1964 in accordance with a purchase order issue in September of this year. The price of each program selector unit, in the initial quantity ordered, will be $56.02.

The interrogation units, to be used for automatic recording of viewing habits of system subscribers (for billing purposes) will handle 26,880 subscribers each. By plugging in additional module units, an interrogating system is capable of handling up to 712,320 subscribers. The first pair of interrogator units are to be delivered late in April 1964, for which STV will pay LSI $1,799,050.

The plug-in module units will each handle an additional 13,440 subscribers. Price of each module unit from LSI to STV will be $6,187.

The program selector box mounting on the back of the subscriber's receiver, or at some convenient spot nearby, measures approximately 11 inches by 7 inches by 5 inches. The selector box connects in series with the downlead from the subscriber's regular antenna, and also ties into a drop line from the STV system. As noted, no interruption or dis-continuity is introduced into the subscriber's regular off-the-air viewing by the program selector attachment.

REGULATION

STV is not required under present law to be licensed by the FCC.

The State of California has adopted legislation permitting the operation of subscription television systems. This legislation provides that each company engaging in the STV business shall make quarterly payments to (a) the State of California of one per cent of its total gross receipts (other than certain taxes passed onto subscribers), (b) to each local agency (city, county, or city and county) within which it operates of one percent of that portion of its gross receipts (other than certain taxes passed onto subcribers) which are derived from persons located within the locale served. STV intends to pass these taxes along to its customers.

According to fall news reports, theatre interests opposed to the STV (and other subscription systems) operation plan to seek a repeal of the California legislation by legislative action or referendum or to attack the validity of the California legislation in judicial proceedings.

HISTORY OF DEVELOPMENT

On September 18, 1963, STV purchased the assets of Home Television, Inc., a firm which had developed prototype equipment for closed circuit television, pay television and which had proposed to establish such a system in Santa Monica, California.

The Home system utilizes a closed circuit programmer which includes a mechanical recording device located outside the subscriber's premises(but on his property) to determine which programs have been viewed (and for how long) by the subscriber. Although STV has no plans to install the Home system in any particular community at present, it is believed that the Home system may be valuable for allowing STV entry into substantially smaller communities (such as those where CATV now exists) at a lower initial cost than would be incurred by installing the STV system, while permitting later conversion to the STV method if desired.

Among the assets acquired from Home were two contracts, one with General Electric and one with American Electronic Laboratories, Inc. for certain developmental work and proto-type production of interrogator and program selector units which fit into the Home system.

STV has also acquired an exclusive license from the Skiatron Electronics & Television Corporation for a period to extend through March 18, 2058, to utilize certain patents, methods and system as developed by Skiatron for the purpose of subscription television by radio waves or wire using the Skiatron system.

STV will pay to Skiatron 1%, as a royalty, of each charge actually collected by STV during the license

HOW WILL STV AFFECT CATV?

If STV begins operations with it's 20,000 subscriber quota in mid-summer of 1964 in each of the Los Angeles and San Francisco plants, the subscriber total of 40,000-plus will immediately make the STV operation one of the largest in the wired vision world. The largest **single** wired video system now in operation is believed to be in Montreal, Quebec, Canada, with nearly 30,000 receivers attached.

Allowing for a normal growth period in either the Los Angeles or San Francisco plants, the odds are excellent that one or both could top this number of subscribers by early 1965.

Purists may argue that STV is not even akin to CATV, inasmuch as the system will not distribute off-the-air television signals and the "community antenna" concept is not included.

A hedge on the future growth of the STV concept is found in STV's acquisition of "The Home System." Home Television System has been a participant during past years (1961 and 1962), officially or unofficially, in National Community Television Association (NCTA, Inc.) conventions. The Home System, as described by STV, "may be valuable for the purpose of allowing STV entry into relatively small communities at a lower initial cost than would be incurred in installing the STV systems . . ."

This could be taken to indicate that **if** the STV concept goes over big in Los Angeles and/or San Francisco, STV will be looking closely at pre-wired towns where CATV systems already operate.

The Home System, which utilizes a metering box for each drop connected, makes a billing record on the subscriber's premises, much like a gas service or electric company meter records total consumption of the service involved.

There are many who believe, however, that once a community is indoctrinated to the master antenna concept, via the cable, where the customers know they are buying the service of a **master antenna,** the psychological impact of added **pay-to-see television** is both unworkable and impractical.

How well STV fares in the West may dictate in the next few years whether or not STV will be willing to tackle CATV plus STV before the end of the 1960's.

period, and to Tolvision (the former holder of the Skiatron use-license) 2½% of each charge actually collected by STV during a ten year period commencing on the date the STV system is actually in operation with not less than 40,000 subscribers.

PROGRAMMING AND PROGRAM CONTRACTS

At the present moment it appears the bulk of the programming-sales pitch is to be built around the closed circuit telecasting of San Francisco Giants and Los Angeles Dodgers baseball games. Undoubtedly, this will be extended into other areas of high sports interest in San Francisco and Los Angeles if the sporting attractions prove saleable.

Aside from the sporting events considerable effort is being made, it would appear, to bring first run current movies cultural events (such as live theatre and opera) and other local events to the system subscriber.

The contracts signed with the Giants and Godgers are essentially the same with provisions for the payment of severe penalties, on the part of STV, if STV does not have 20,000 subscribers ready to go in San Francisco (and Los Angeles) on July 1, 1964.

Both the Giants and the Dodgers apparently feel that their association with STV, should STV have fewer than 20,000 subscribers in each of the respective cities, would be to the detriment of the two baseball clubs from the standpoint of respecting the exclusiveness of the telecasting franchise with STV. STV has agreed to pay the Giants (and Dodgers) 20% of its baseball game gross receipts, until such point as the gross receipts aggregate $1,500,000 (per season) and thereafter 33⅓% of its gross baseball receipts. The defining of the per-game charge, for the subscriber, is left up to STV with the understanding that "baseball is a popularly priced sport" and the charges should be commensurate.

Both home games and road games are to be telecast when the system is completely workable, and the games will be telecast in color as soon as STV has the equipment to **simultaneously telecast two channels of color** over the system. This provision is apparently included so as to not tie up **all** STV color equipment in the baseball games in the interim building period.

However starting with the 1965 baseball season, all games are to be telecast in color.

If STV does not have the required number (20,000) of subscribers in the licensed territory by September 1, 1964, the Giants (or Dodgers, or both) may cancel the contract **unless** STV shall pay to the Giants (or Dodgers, or both) $100,000 and shall agree to pay the respective team or teams $100,000 for each month after April 1965 during the 1965 baseball season which operation of the STV system continues **without** the proper number of required subscribers.

The initial number of subscribers required, 20,000 by July 1, 1964, balloons in the years that follow. For example, the Giants' contract calls for not fewer than 500,000 subscribers by September 1968; 560,000 by September 1969; 620,000 by September 1970; 680,000 by September 1971; 740,000 by September 1972 and 800,000 in the STV aggregate systems by September 1973!

The Dodgers contract is identical except for the numbers. The Dodgers require the same 20,000 subscribers by July 1, 1964, but the total mushrooms to 700,000 in September of 1968 and tops off with a requirement that STV — Los Angeles have 1,000,000 subscribers in its aggregate system by September 1973.

Baseball is of course a seasonal program. STV has entered into a contract with Mr. Sol Hurok calling for Mr. Hurok (and all corporations he controls) to act as a consultant and negotiator for STV in the presentation of other programming. Mr. Hurok's balliwick seems to be "cultural and other attractions." All STV-Hurok presentations will begin with the phrase "S. Hurok Presents," and there are those in STV who feel this will one day replace the NBC peocock in the eyes of the American viewing public as a symbol of good video entertainment.

STV is paying Mr. Hurok a flat fee of $10,000 per month **and** ½ of one percent of program charges actually collected by STV from subscribers, for programs, attractions or artists attracted to STV by Mr. Hurok. A stock option was also granted to Mr. Hurok, and his contract runs for five years.

COMPLICATED AUTOMATED BILLING

STV has entered into an agreement with The Reuben H. Donnelley Corporation (RHD) under which RHD is to render services with respect to sales, business offices and billing, and to publish the program brochure for the STV systems.

RHD is one of the original investors in STV.

RHD will conduct direct mail, neighborhood canvassing, group sales presentations and public display centers to obtain subscribers for STV. RHD will also provide sales offices, research centers, research services, sales aides, market planning and recruitment and training of personnel for the sales and billing efforts.

RHD will handle the organization and operation of billing offices. Information for billing purposes

(Continued — page 30)

WHAT WILL STV COST?

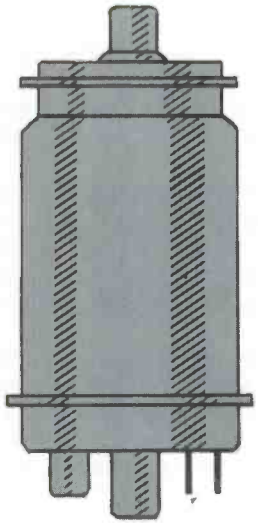
Computing the actual costs of the STV installation, or its projected operating costs at **this** point is not a project for the light hearted.

Complicated royalty arrangements, commissions and sur-charges for gross receipts above this amount or net receipts above that amount only serve to completely muddy the picture for an outsider.

A good portion of the STV costs will be indirect charges by contract servicers, such as Lear Seigler, Inc., or Lear Seigler Services, Inc., or the Reuben H. Donnelley Company. These charges will be computed only on work actually done or on work to be done over many months or years. The month to month profit and capital income picture is completely concealed in management hands.

Still to be nailed down are exact charges from the telephone companies and an estimation of costs for origination equipment (cameras, video and audio mixers and generators). There has been some indication that STV will initially, at least, attempt to lease the services or equipment of Los Angeles or San Francisco telecasting stations to provide local origination items as needed for phase-one operations.

Whatever the actual monthly operating costs, it seems certain it will be many months or even years before the operation can possibly see black ink ahead for the bookkeeping department, so enormous is the task of setting up the initial operation.



416B

Maximum Selectivity For Two-Way or CATV Systems

by
Frank L. Griffin
P.O. Box 633
Port Hueneme, California

How often have you said to yourself, when faced with the problem of making the very most of a marginal level signal in the VHF range, "I'd sure put that 416B to work here if I only had a socket!"?

The 416B tube is not a new tube, but it has never been widely used in CATV or communications because of the socket-mounting problem and the relative cost of the tube.

The fact remains, however, that Nuvistors, low noise transistors, 417A and 7788's included, the 416B gold plated triode is the highest mu (a Gm of 50,000) tube in the running. Western Electric communication systems make plenty of use of this tube for ultra-low noise point-to-point VHF and UHF RF amplification applications right through the VHF and well up into the UHF ranges.

At least two CATV manufacturing firms (CECO and Holt Electronics, Pennsylvania) have produced 416B single channel high band VHF and UHF cavity amplifiers. Experience with these units is not available, however, although field reports would seem to indicate that they perform well when operated with proper care and voltage regulation.

This report covers a do-it-yourself 416B low noise preamplifier with a do-it-yourself socket. Inasmuch as this tube does require a special (and very special at that) socket to operate, the engineering report here is built around the construction of that socket in your own shop.

The 416B pre-amplifier will out perform any known type-tube amplifier in the frequency range 100 to 500 megacycles. With some care in the construction, its usable frequency range can be extended up several hundred megacycles.

In any case of low-level signals (in two-way communications, signals below 1 microvolt are usually considered low level; in CATV, signals below 50 microvolts are definitely low level!), the 416B should be given careful consideration before you rule the available signal level useless.

The 416B, when used commercially, is usually adapted to some type of cavity, and is screwed into this cavity which utilizes a type of spring tension to make the cathode and plate connections. Here I am referring to finger-stock connectors as a spring clamp for the cathode and tension loaded squeeze connector for the plate connector. You will also find a floating socket is used for the heater and the dc cathode connections.

The reason the floating socket is used is that when the 416B is screwed into its cavity housing, the base connections do not always line up from tube to tube. This is due to the fact that the grid-cathode glass bonding does not stay uniform in manufacturing.

This socket, described here, eliminates the need for a floating filament and cathode connection and viola! — how simple it is to change tubes and still maintain correct alignment.

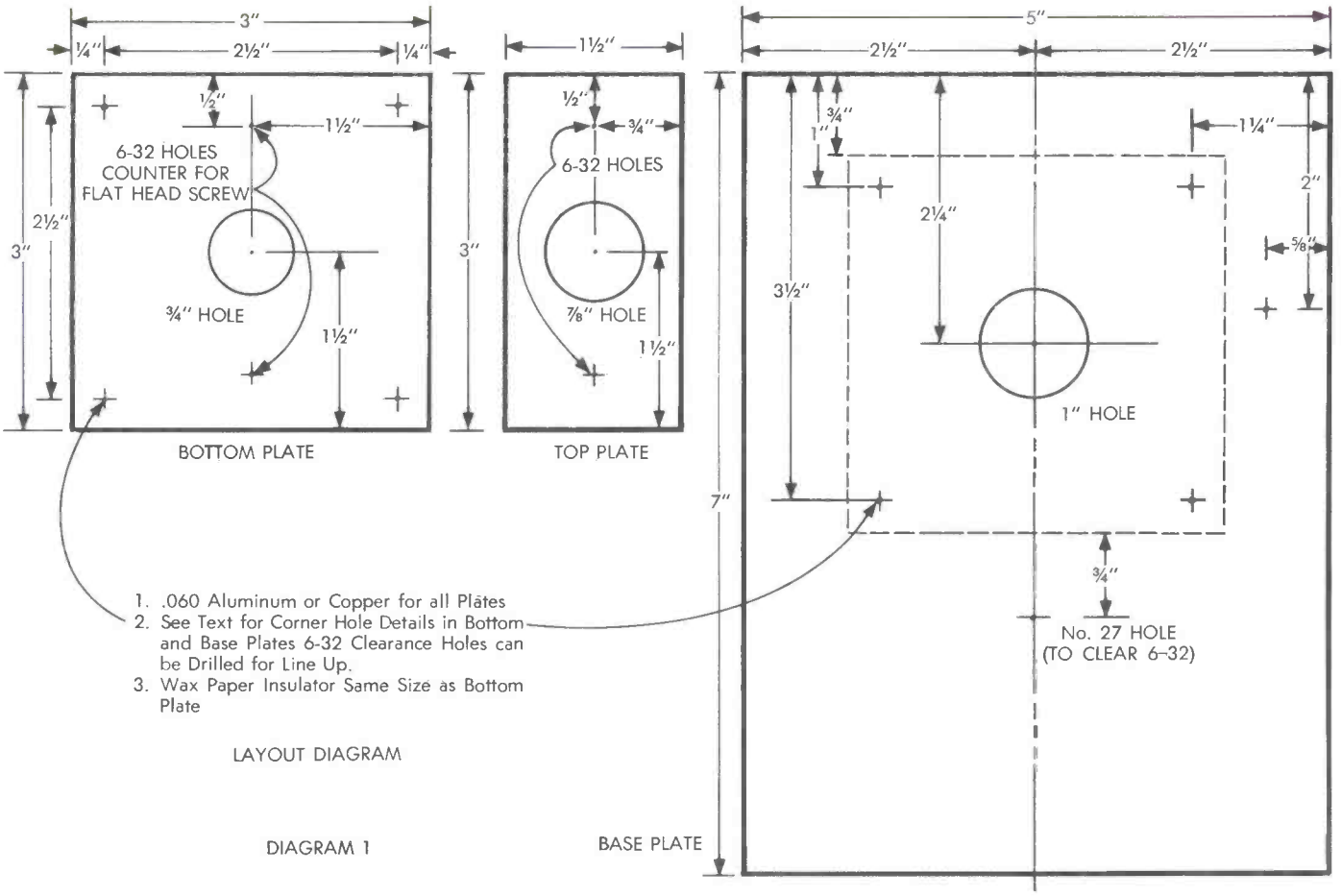
The circuit shown is a grounded grid configuration, and again the need for a grid mounting plate. Since the circuit is of the grounded grid type, bias voltage must be somehow applied for proper tube operation. Cathode bias **could** be used and **some is used** for the dc cathode, but it is far easier to control conduction by biasing the grid in this application.

Now **some** bias is used on the dc cathode. The cathode is dc as the tube has an external cathode shell which is the ac or signal cathode. This is separated from the dc cathode by a coupling capacitor built into the tube. This cathode is external so the tube can be used in a coaxial cavity if desired.

Aside from the construction of the tube and the grid biasing, the circuit is straight forward in application. All of the unusual design is internal to the tube itself.

CONSTRUCTION

To start your pre-amp you will need .062 aluminum flat stock, or copper or brass substitute. Brass is actually to be preferred, and it could be silver plated to really be effective at higher frequencies. The pre-amp is built on a 5 inch by 7 inch plate and this plate, in turn, mounts on a 5 inch by 7 inch by 2 inch chassis, with a second 5 inch by 7 inch by 3

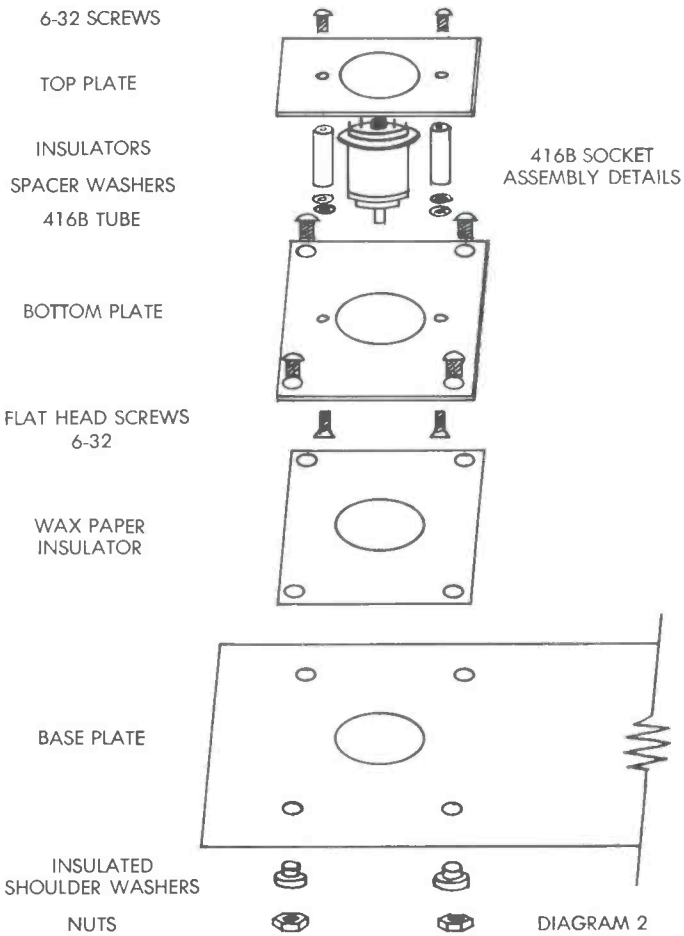


inch chassis utilized as a cover for the air cooling system. The tube needs forced air cooling to last in rugged commercial applications, and we'll discuss that later.

Diagram 1 shows the detailed layout and dimensions of the various pieces involved. The chassis plate will be, as mentioned, 5 inches by 7 inches. The bottom plate will be 3 inches by 3 inches and the top plate will be 1½ inches by 3 inches.

All holes can be drilled or punched from diagram one, except the corner holes in the bottom plate and the matching holes in the base plate. The size of these holes will be up to the builder inasmuch as you will determine the size of the shoulder washers you use to insulate the nuts of the hold-down screws from the base plate. The washers are shown in the exploded view diagram and since the washers determine the size of the machine screws, used, they also determine the size of the holes to be drilled in the bottom plate. One of the screws is the feed-thru lead for the grid bias voltage so it **must be metal,** in case you consider using plastic or fibre screws and nuts.

When the plates have been drilled and holes punched, de-burr all of the small holes. Now use a piece of fine sand paper or emery cloth and polish all of the areas around the **socket** holes. Polish with particular care the countersunk holes in the bottom plate. A careless metal burr could later punch a hole in the dielectric/insulator we recommend, causing a shorted grid connection.



TOP VIEW OF BASE PLATE
SHOWING BASE CONNECTIONS
TO 416B & PARTS LAYOUT

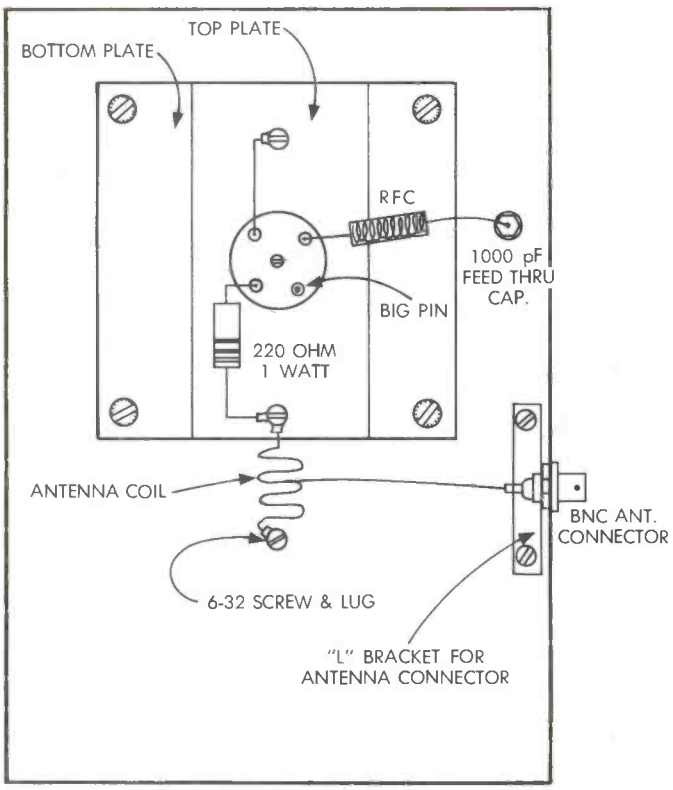
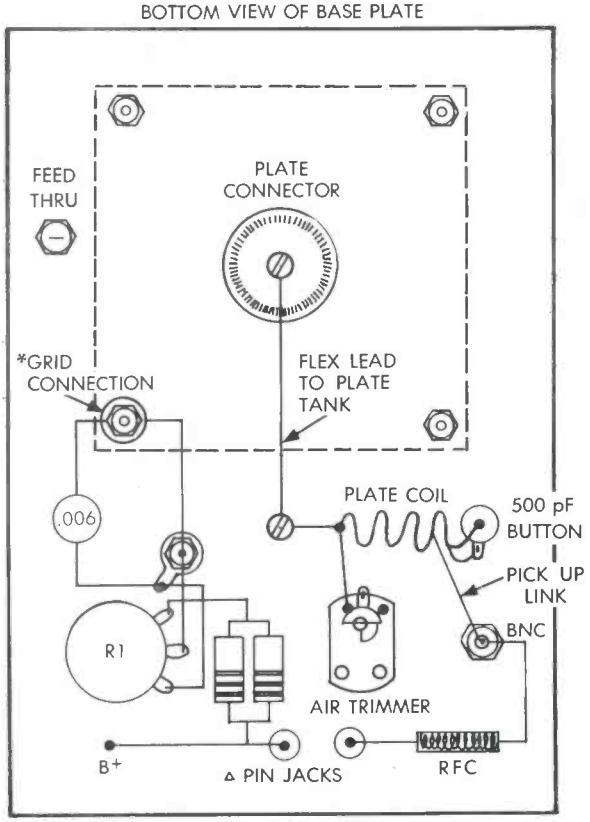


DIAGRAM 3

BOTTOM VIEW OF BASE PLATE



*HOLD DOWN SCREW FROM BOTTOM PLATE
▵PIN JACKS USED FOR PLATE METER USED IN TESTING. JUMPER CAN BE USED AFTER UNIT CURRENT SET AND PREAMP IN "CABINET".

DIAGRAM 4

Now refer to the assembly diagram, diagram 2. Taking the bottom plate, mount the insulator to it. Use the 6-32 flat head screws and needed space washers. If you have access to 8-32 fibre washers, use them as a cushion next to the bottom plate. This will allow you to draw up a little tighter on the insulators without cracking them.

The stand-off insulators used are of the common ceramic variety, 11/16 inches long and 5/16 inches in diameter.

With the insulators mounted to the bottom plate, take the sand or emery paper and polish the screw heads on the insulators. This will eliminate any burrs from the screw slots that may be left from screw machining.

With the insulators on the bottom plate, cut a piece of kitchen variety wax paper about five inches square and lay it over the base plate so it covers the corner holes for the bottom plate with an inch or so of surplus on all sides. With a sharp instrument, punch a gentle hole into the wax paper at one of the corner holes. Do this from the top side down so the jagged edges go into the shoulder washers. Insert (carefully) one hold-down screw and nut, and tighten finger tight. This will now allow you to align the bottom plate and the other holes, and hold the bottom plate so the other screws can be inserted in a like manner. The screws are now ready to tighten up.

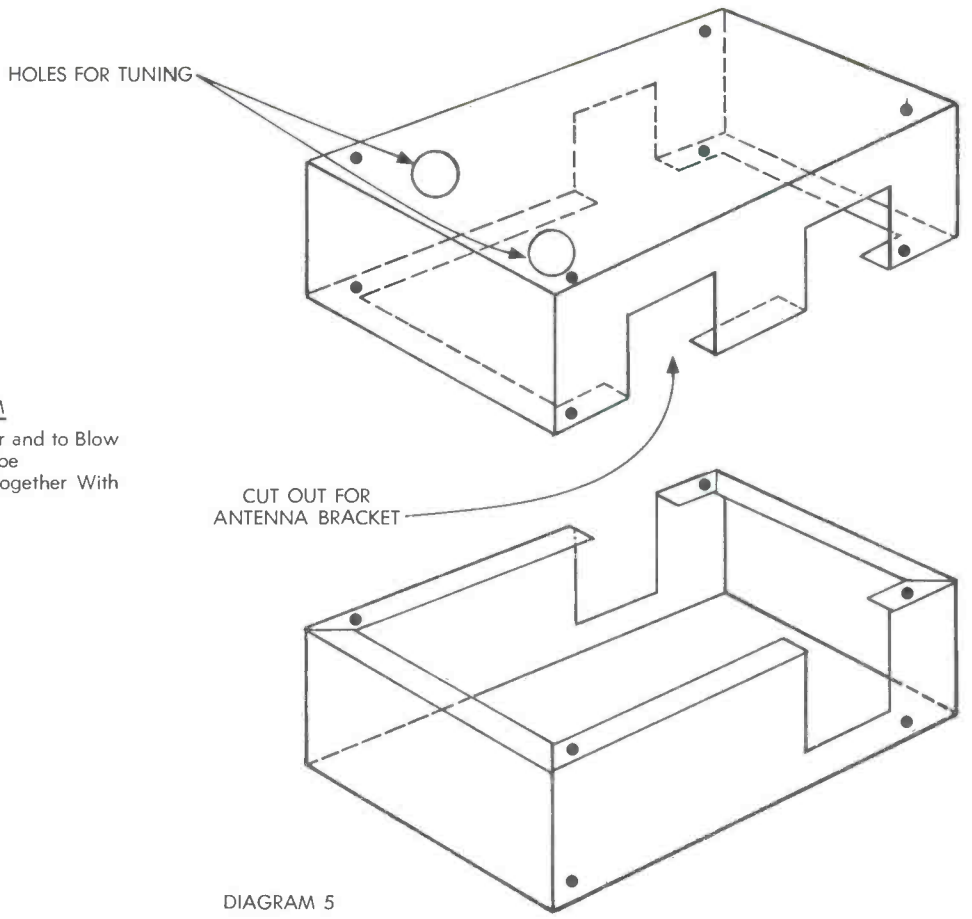
Take your ohm meter and check to see that the plates are not shorted (through the wax paper dielectric/insulator) and, if possible, leave the leads on the plates while tightening the screws. In this way you can quickly see if a short develops while tightening the screws. Assuming you have the screws tight with no shorts, take a sharp knife and trim the surplus edges of the wax paper using the bottom plate as a guide. Use care to avoid tearing the wax paper. Tip the plate over and use the one inch hole as a guide, removing the wax paper in this area. The socket is now ready to accept the tube.

Take the tube carefully and place it in the bottom plate hole, plate down. Place the top plate over the tube and tighten one screw so the tube won't slip about. Place a solder lug over the other screw and tighten so the tube can be easily rotated in the socket. Take the first screw out and put a solder lug on it, align the tube and tighten both screws.

At this point you can see how easily it will be to change tubes, align them and not worry about the thred lining up in the bottom plate. The screw tension is more than adequate for a good electrical contact. However if your tube moves after the screws are tight, just remove one spacer washer from each insulator and re-tighten.

WIRING

Now the tube is mounted in the socket, the next step is to wire up the heaters and the dc cathode. You will need two additional holes in the base plate to do this. Their locations are shown on the base plate diagram. The first is on the right side, looking from the top of the base plate, and is ¼th of an inch in diameter. The other is next to the bottom plate on the long portion of the base plate. The



CABINET DIAGRAM

1. Air Ducts cut to Match Blower and to Blow Across Plate & Cathode of Tube
2. Chassis & Base Plate Held Together With 5¼x6-32 Machine Screws

DIAGRAM 5

proper size is for clearance of a 6-32 screw. The ¼th inch hole is for the heater feed-thru by-pass and the smaller hole is for the lug which holds the **cold** end of the antenna coil.

From the top view diagram 3, you can see how the tube connections are made and the antenna coil mounted. Connections for the tube pins are made by removing the pin connectors from a nine pin miniature tube socket. If your socket is a stubborn one it may have to be broken. If this is true, the easiest way to do this is to use a large pair of side cutters and crack the socket so the inserts fall out freely. This prevents any damage to the inserts so they can be re-used.

Also shown on the top view diagram is an "L" bracket for the antenna connector. In this case a BNC connector was used. Any connector suitable for the equipment the pre-amp will be used with is perfectably adaptable.

The bracket is a 1½ inch square piece of metal with a ¼th inch lip bent on it. The BNC connector is then mounted in the center of the large area of the bracket and the bracket screwed to the base plate.

In wiring the base connections, number 16 solid copper was used from the pin connectors to the lugs. The antenna coil will depend on your operating frequency and should be grid dipped to frequency. At 150 megacycles, 4 turns of number 14 solid wire spaced ⅜th inch diameter, and spaced ¾th inch long is suitable.

The lead from the antenna connector is also number 16 solid wire and is soldered directly to the antenna coil 1½ turns (or approximately 40%) up from the hot or cathode end. In final tuning of the pre-amp this may change, but you will need a tinned area to which to solder when the tap is finally made, so nothing is lost by soldering at this point.

Up to this point detail has been given to the top side of the pre-amp, where the socket area is located. Since this area is the foundation, so to speak, I have tried to make the construction as clear as possible. If you have followed along so far, including the antenna connection, the "top-side" of the preamp is complete, except for possible re-location of the antenna lead to the antenna coil. From this point on the rest is quite simple and the details fewer.

Reference is made to the bottom-view, diagram 4. The parts can be located as drawn, but their exact location is not critical. Keep in mind that the base plate fits between two 5 by 7 inch chassis. A ⅜ inch lip around the base plate should be free of all mounted parts so it will fit flush between the two chassis.

As you will notice from the top-view diagram, the heater feed-thru and the antenna bracket will hit the chassis lips. A large rat-tail file will clear the area for the feed-thru and also for the nuts on the antenna bracket.

The only unusual part on the bottom side is the tube plate connector. This is one of the large aluminum type connectors used in medium power transmitting tubes. The "plate-cap" used by the author

had the plate hole enlarged to 3/16 inch. To do this remove the set screw and drill the hole out to the larger diameter.

As for the "cabinet" constructed from the two chassis, lay the base plate on the 5 inch by 7 inch by 2 inch chassis, plate side into the chassis, and determine where the openings will be needed so air will blow on the plate connector. Do the same thing to the 5 inch by 7 inch by 3 inch chassis so air can cool the tube base as well. Also locate the area for the antenna bracket as some chassis material must be removed here to allow access to the antenna connector. The cabinet diagram, number five (5), shows the suggested layout and the blower mounting.

The blower does not have to be very forceful, just large enough to move cool air to the tube. A small phono motor with an attached blade will do the job nicely if that is all that is handy.

But the cooler the better (down to a point!) since degrees Kelvin are a noise figure factor and Kelvin in my book means noise. Do not attempt to run the tube at anything near ratings without forced air.

An experimental pre-amplifier without cooling drew normal current for less than five minutes and then ran up to 100 mils whereupon I disconnected the B-plus supply quickly.

However running the tube at 90 volts and 4-5 mils did not produce sufficient heat to cause the plate current to skyrocket. Above 90 volts the current becomes unstable and begins to climb readily.

CHECK OUT AND TUNING

Check out and tuning is also quite simple. After the blower was mounted on the lower chassis, the plate tank was dipped for the ballpark frequency and the base plate secured to the lower chassis with masking tape to hold it in place.

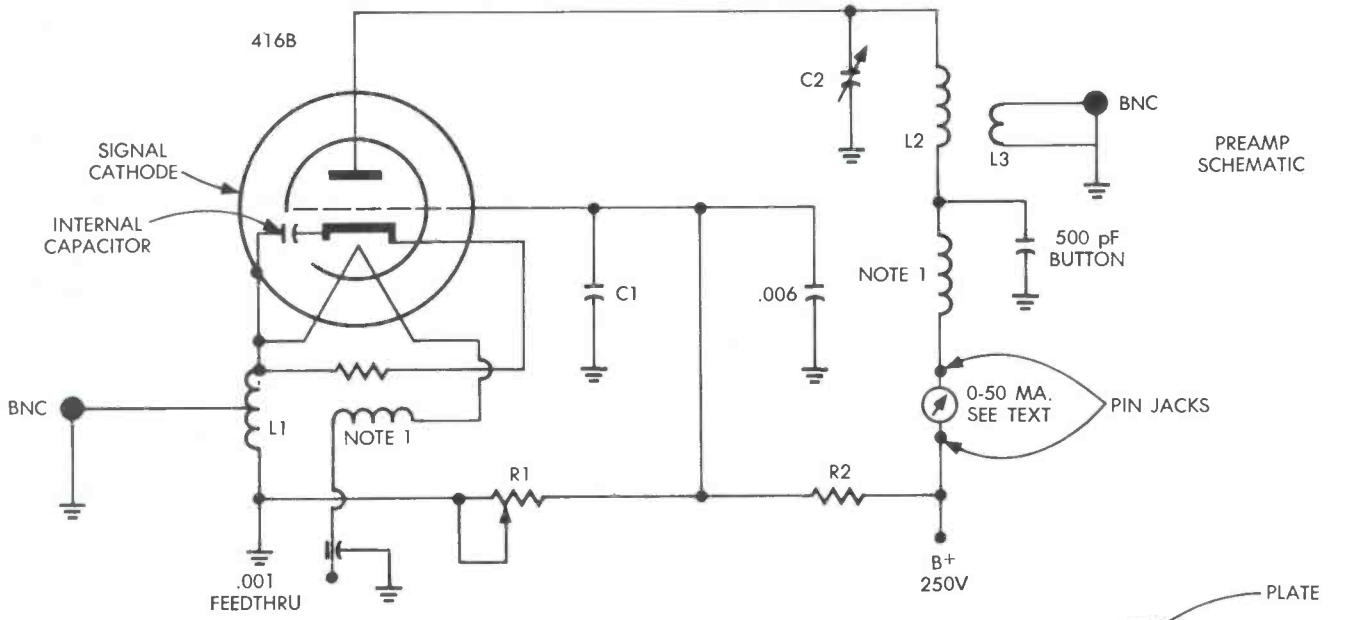
With the blower connected, the bias control was set to show 20 mils of plate current at 250 volts on the plate. After connecting the signal generator, and the pre-amp to the following first stage in the receiver, the plate tank was tuned for resonance. On communications equipment, a signal generator output of 1 microvolt is adequate for pre-amp alignment. Measure AGC voltage in the receiver, or tune by ear with a modulated signal generator output.

For television front end equipment, start with a 20 microvolt signal and place a field strength meter in the line of the output of the amplifier stage **fed by** the pre-amp.

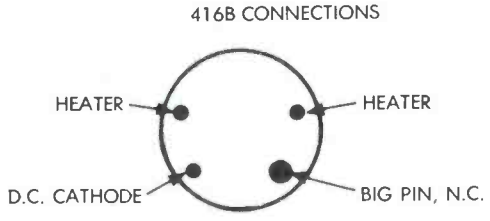
The antenna tap is now moved to find the **maximum signal with the least noise.** After these high signal level adjustments have been made, drop the signal generator output down to the level where it is just barely discernable with your particuplar measuring technique, above the noise, switching the generator on and off to assure that it is signal plus noise you are reading and not merely noise.

Repeat the resonance and antenna tap peaking process.

(CONTINUED — page 20)



C1—SOCKET CAPACITOR
L1—GRID DIP 3/8" DIAMETER COIL TO FREQUENCY DESIRED
L2—GRID DIP 1/4" DIAMETER COIL TO FREQUENCY DESIRED
L3—IT, 1/4" DIAMETER
C2—8 PLATE MINIATURE AIR TRIMMER
R1—1K 5 WATT POT.
R2—2 30K 2W IN PARALLEL
NOTE 1 — USE Z-50, Z-144, Z-220 RF CHOKES AS APPROPRIATE TO FREQUENCY



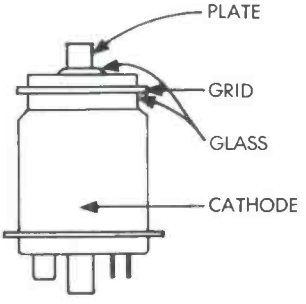
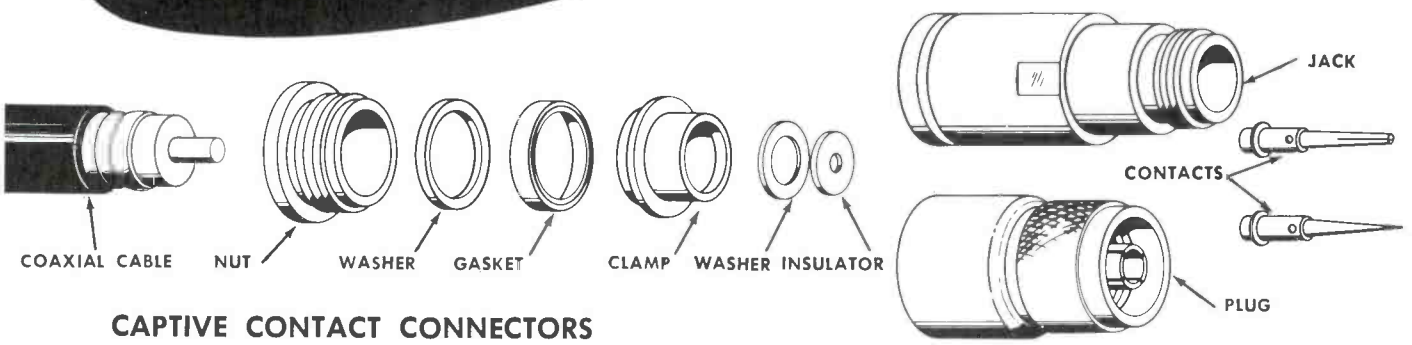


DIAGRAM 6

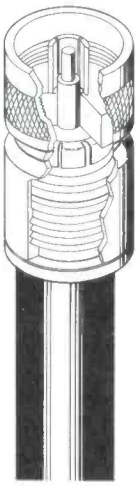
ELIMINATE "PULLOUTS" THAT CAUSE BLANK SCREENS!

with SUPERIOR'S *Captive Contact* CONNECTORS



CAPTIVE CONTACT CONNECTORS

CELL-O-AIR CABLE WITH COPPERGARD provides up to 20% lower attenuation; far better long-term transmission stability, and far greater radiation protection. Solid tubular Coppergard shield also eliminates the radiation leakage apertures present in all braided coaxial types. Corrugation permits hand bending to acceptable limit of 20 times diameter safely.



Catalog Number "Coppergard" Shield	Attenuation (Nom. db @ 100 ft.) Ch. 6	Ch. 13	Nom. Overall O.D.
4920	0.88	1.50	.480″
4930	0.65	1.05	.652″

ALSO AVAILABLE: Self-supporting IM "Fig. 8" type and Double COPPERGARD shielded types for direct-burial use.

• SHIPPED IN 3M' REELS

EVERY REEL SWEEP-TESTED OVER ITS FULL LENGTH

These new connectors make positive, never-fail contact between lengths of coaxial cable to eliminate any and all "pullouts" that interrupt service and put out the picture. Designed to mate electrically and mechanically with #4920 and #4930 "Cell-O-Air" coaxial cable with "Coppergard" shield. Superior's captive contact connectors assure full-system compatibility.

Both cable and connectors have been designed exclusively by SUPERIOR for the CATV Industry.

HICKORY BRAND®
ELECTRONIC WIRES AND CABLES

Manufactured by

SUPERIOR CABLE

Superior Cable Corporation • Hickory, North Carolina

CATV, NEWS MEDIA AND YOU


THE DAILY OKLAHOMAN

State Congressional Redistricting Asked In Federal Court Suit

Saigon This Restored

Senate Bans Aid To Egypt, Slavs

A wise wag once said "nothing is an old as yesterday's newspaper."

A modern version might be "nothing is as old as yesterday's television programs."

For, in a modern enlightened world, the television receiver in the American home has in many ways replaced the newspaper for depth of analysis, instant appraisal of changing situations and lasting impressions on the American public.

Most newspapers will argue these points, and claim television has affected them naught. For after all the American newspaper is part of a great American heritage. And besides, who wraps up the scraps from last night's dinner in an old television set?

Many CATV operators, aware that a certain amount of border-line competition exists between the television receiver and the home newspaper, develop premature feelings of **guilt of competition.** Instead of exploiting the natural desire of the local newspaper to print the news, many CATV operators seem to pull in their horns and avoid the newspaper people for fear they will offend them.

Now newspaper people, especially in small towns, **are** easily offended. Especially by people who act like they **do** have something to hide. And, after all, what other reason would a businessman in town have for avoiding the newspaper personnel other than his wish to hide something?

Sound far fetched? Not on your life! More than one CATV operator has discovered all too late that most newspaper people want to help, report on the news and be of service. And once the damage is done — well — newspaper people usually have long memories.

So how do we start out on the good side of the home town newspaper? or worse yet, how do we get **back** on the good side of the local press once the damage has been done?

Nothing talks like money. In most small towns, advertising revenue is scarce and advertising rates low. Obviously, advertising **can** pay. If it is handled properly. But merely buying an ad for the sake of hopefully appeasing a mildly disgruntled newspaper is hardly a good investment, as we shall see shortly.

NO-COST ADVERTISING

From a practical business standpoint nothing is as economical as no-cost advertising. No-cost advertising takes many forms. It can be good, or it can be bad.

Chances are relatively good that sooner or later someone is going to write a letter to the editor **complaining** about cable television service, rates, picture quality or even the fact that your service trucks park in front of some old lady's home!

If that letter gets into print, you have no-cost advertising. But it doesn't help you — **much!**

Sooner or later the city council is going to question your franchise, your rights-of-way or the way you part your hair. An alert newspaper man will report this in print. That's no cost advertising, too. But it doesn't help you — **much!**

Sooner or later your service truck is going to bang into a local resident's parked car, knock over a sign, be involved in a two-vehicle accident or lose its brakes coming down the hill and ram a house. That's news, and it will show up in print. And that's no-cost advertising. But a fat lot of good it does you in print!

Sooner or later you are going to have to sue a customer for return of your cable and tap (the old lady sits on her front porch with a bear rifle threatening to blow the head off your serviceman if he steps on her property), or for a long overdue bill. That will get into the newspaper because it's news. And that my friend is **advertising.** It didn't cost you a dime. **Or did it?**

Now suppression of the news is an ugly idea in newspaper circles. What with the American Newspaper Editors Association claiming that JFK's Pierre Salinger (an ex-newspaper man) reveals only the side of the news the administration wants revealed, and Pierre shouting right back that newspaper editors might get oll of the news if they would treat it fairly, most newspaper men are a little touchy over suggestion that they soft peddle a news item. Besides, they have a moral unwritten code to report all of the news that is fit to print. Sort of a Hypocratic Oath amongst "city room" men.

So the **worst** possible step you can take when some of this none-too-complimentary no-cost publicity lands on your doorstep is to suggest to the newspaper editor that he forget it ever happened.

At this point we are assuming that the newspaper editor will print everything bad about your company, because bad news is good news.

In complete fairness to the newspaper editor, it should be pointed out that he is willing to print good news about your company too. Only, unlike the little old lady sitting on the front porch with her bear rifle, it may not seem as newsworthy to friend editor as the not-so-complimentary news does. So you have to convince him a little bit that your good news is easily as important as that short column about the new real estate office in town or the new secretary the mayor hired.

This is where the money comes in.

Bad news (that is news that is uncomplimentary to someone) doesn't have to make the newspaper any money in advertising revenue. It makes money in **subscription revenue.**

But bad news also has to be weighed in its **treatment** on a delicate set of business scales.

Have you and your CATV firm done any advertising lately? Are you planning any? Are you a steady customer or just a spasmodic spender?

Let's assume you advertise daily. We'll discuss how this might work shortly. The editor (who sometimes doubles as the business manager in a small town) then says to himself "Cable Company is spending $50.00 per week with me. He's a steady regular customer and everyone in town seems to like him. (Most everyone in town always likes steady regular customers of the newspaper!) I have two stories here to fill 8 inches of space. Both are six inches long, so one has to be trimmed back."

Did he trim back the gorey details on your misfortune, or did he leave your story a "full six" and trim back the other story?

You guess.

Suppression of the news?

Not on your life. The newspaper still reported your truck went wild and rammed a tree. Only it never got down to the second paragraph which mentioned your driver's complaint about faulty brakes that **you** never got around to having fixed!

GOOD NEWS

Even on its high white pillar, a newspaper is a business. It has to stay in the black or it won't stay black and white. Not for too long anyhow.

Few CATV systems ever think of their newsimage until they want a special favor from the newspaper. Newspaper editors are as a lot naturally suspicious of special favor requests.

It is much better to attempt a regular program of news services to your community than to attempt a big one-shot image promotion just before each world series.

So how about a few practical and proven methods of setting your firm before the public with a favorable image at least once per week.

(A) In most CATV towns, the CATV firm is looked to as a great authority akin to a knowledge fountain in the TV wasteland. Most viewers suspicion that **you** are **really** a cousin of Gretta Garbo or Robert Taylor or you wouldn't be in this "showbusiness" business. So it is only natural that they expect you to be Mr. Know-It about television programs and stars, about town. **Play this up.** Speak before the rotary club and tell the Rotarians how difficult it is to make a CATV system work.

Keep ahead of the local crowd by knowing what special programs are coming on TV, who will star and what is worth watching and not worth watching.

After all, you **are** the authority. Act like it! Don't get so lost in your 6AK5's and yagis that you forget what it is you are selling. Television! **The world at their fingertips.**

(B) Most small town newspapers, especially towns where television reception is marginal at best, don't carry television program schedules. You on the other hand should have a working acquaintance with the stations whose signals you distribute. You should be on **their** mailing list to receive copies of their program schedules (all stations print and distribute program schedules), changes in programs and special program notices.

You should be able to talk the newspaper into your preparing a television program schedule for print (assuming they don't carry one now) in which you can **cleverly** change the television channel numbers to reflect the channels you actually have the stations converted to on your system.

An extremely sharp newspaper man may see what you are up to (no-cost advertising) and suggest that if you will prepare the schedule, and submit it to him for print, he will **only** charge you 50% of the going advertising rate for the space the schedule uses "because this is news — sort of."

Snap up the offer before he really figures you out!

Now let's assume that your newspaper already carries TV program schedules (with the wrong channel numbers probably, if you convert in your system). Try pointing out to the editor that 2,000 people in town are on the cable and that's half of **his** circulation. And that these 2,000 people can't figure out his TV program schedules because he has the actual channel numbers, not the converted cable channel numbers on his schedule. Naturally he will quickly see what an added service he will be giving his readers by supplying both the converted (in brackets) and non-converted channel numbers, and marking the bracket numbers with an asterisk (*) and then pointing out in a footnote under the schedule:

*** — Channels on the Cable TV system.**

Now suppose the newspaper lists only the television program schedule for the one local station, and you have four channels on your system?

Obviously a substantial number of his readers aren't getting full TV fare from their newspaper.

Suggestion (C) covers this eventuality.

(C) Someone on your staff or in your family probably can use a typewriter, and write with a pretty good flair.

Very few local or regional newspapers in CATV towns have anything that borders on a "TV News" column in print. TV News columns usually contain quick listings of special programs coming up that day or week, a few notes about the industry and a little chatter about TV personalities. You can get all of this kind of data from the TV station program schedules, TV Guide and telecasting trade magazines such as Broadcasting, Billboard and others.

You can very generously offer to donate free of charge, a daily or weekly column prepared by one of

your staff members, on the subject of "TV News."

Of course your contributing writer would want to cover programs carried by all of your cable TV channels, and if your system has made a substantial dent in the town's TV watchers, the editor will undoubtedly choose to leave the information about station's whose program schedules he doesn't carry (but which none the less are watched on the cable in town) in the column.

Remember, unless you have done something to destroy the image, the natural human tendency of the viewing public is to look upon you and your business with an awe usually reserved for movie actors. You can keep this kind of image alive by appearing in print (under a suitable by-line) in the local newspaper.

(D) Last but not least, if the advertising rates are low enough, and your advertising budget is high enough, your company can buy space to print the day's television program logs for the channels you carry on the system. Chances are reasonably good that you can eventually get the stations themselves to co-op advertise part of this bill with you if they are accustomed to paying for advertising space to list their programs in the big city newspapers in their area. Many newspapers now charge the stations for TV log listings, a direct result of newspaper and television competition during the 50's.

Even if you can't talk the TV stations into kicking in with a few dollars a week for their part of the listing, you can probably get friendly with the station promotion manager and talk him into swinging a few ads for the station or programs carried on the station into your local newspaper every now and then. Printed next to your TV log listing, the readers get the distinct impression it is **you** doing the extravagent advertising and they love you for it! And the very low cost (as far as the TV station is concerned) for the space in the small local paper is good will in their department for it buys additional viewers and your good will. And they need your good will to keep you using their signal for distribution!

Someone may be asking about now "Why should I print TV Logs for my viewers? Let them go out and buy **TV Guide!**"

True . . . let them go out and buy **TV Guide.**

Only where in the regional edition of **TV Guide** does it say in black and white that **you** have a Cable TV system in your town that delivers multiple channel television? Where does it say, day after day and week after week to the non-subscribing family "Look what programs and channels you are missing by not being on the cable?"

Nowhere — that's where.

There is nothing as sub-liminal to the non-subscribing non-cable family as the day after day appearance of the TV log in the local newspaper which reminds them every time they check the TV listing that you not only offer the local station, but two, three or four others as well!

And that is more powerful advertising that you could buy — even if you took a full page once a week on a big extravaganza!

Remember, nothing is as old as yesterday's newspaper. The one with your big advertising spread in it.

Oh, there is a place for big extravaganza advertising layouts alright. Provided they are tastefully done and properly prepared. We'll have more to say about that in a later installment in this series.

LITTLE NEWS ITEMS

Hometown newspapers are made up of lots of little news items. Mostly because not too many big, exciting things happen in a small town.

So it **is** news when you hire the local beauty queen to be your receptionist and bookkeeper.

It **is** news when you add an extra service truck and a new man to your crew. That's one more vehicle on the city streets, probably paying city taxes and using city sold services. And that's one more employed man and family in town spending money with the local merchants. The merchants see it this way. The newspaper sees it this way. You should too.

It **is** news when you add an extra channel to your system. Not so much because you have a new station to serve your viewers with (unless, of course, the new station happens to be an educational station — in which case you have a real feature which we'll discuss next month), but simply because it is a sign that you have a healthy growing business. And that is a good sign in any small town.

Getting this news to the newspaper is usually no trick. If you've just hired the local beauty queen as a receptionist, call the paper and tell them that the child prodigy has returned home and is working for your "television firm." Television **and** beautiful women go hand in hand and it shouldn't be very long before the boy and his Speed-Graphic are at your door to take a picture.

But don't expect the paper to come running quite so soon when you add a service truck. Do it up right yourself by taking a picture of the new man and the truck, and then type out a short release which includes such vital facts as "this man and his family (who reside at Jones Street) have been moved into town by your firm to meet a need for expanded service to your customers. And that the new truck, which you purchased from Smith Chevrolet at 14th and Jones, will travel over 50,000 miles on city streets in the next year servicing your customers."

The editor will get the idea and probably run the picture and the story.

Up to this point we have been handling newspaper editors. It is our intention, in this series, to delve into the intricacies of handling local radio broadcasting people as well. But, in the meantime, perhaps you can make some real progress with your local newspaper.

(416B — continued)

It is **not** maximum signal gain through the pre-amp that you are looking for, but rather it is maximum signal gain with concurrent maximum signal to noise ratio. The two **are not** going to appear with the same combination of resonance and antenna tap location. It should be obvious that noise generation in the 416B pre-amp is the **last** thing you are after. You want to take full advantage of the tube's low noise characteristics, not any gain characteristics it may have. So make all adjustments with an eye towards lowering as far as possible the output of the signal generator, and still maintain a discernable signal-plus-noise to noise ratio, **not for maximum signal plus noise** voltage level. Once the low noise factor is established in the 416B, it is relatively simple to maintain the ratio of signal to noise.

Our Man in Public Safety Communications

By Robert E. Brooking

In an unprecedented "First," the Land Mobile Radio users of Southern California played host to all seven Commissioners of the FCC from September 29 to October 2, 1963. In the words of Chairman Henry of the Commission, there is no occasion to his knowledge when all seven Commissioners had visited a place remote from Washington, D.C., at the same time.

Also present was Mr. Nicholas Zapple, Staff Counsel to the Senate Committee which studies and makes recommendations to the Senate on appointees to the Commission as well as legislation and appropriations affecting the Commission.

To Victor Reis of Bethlehem Steel, Chairman of the Committee on Manufacturers' Radio Use of the National Association of Manufacturers, goes the credit for bringing about the visit of the Commissioners; but the success of the Commission's visit was the result of the joint efforts of almost all Land Mobile user groups in the Los Angeles area. Special credit should go to Mr. Carl Jeffries and Mr. H. W. (Tex) Davis representing the NAM Committee of Manufacturers' Radio Use; Mr. William Weisz, representing the Land Mobile Section of the Electronic Industries Association; Mr. Louis E. Ludekins representing the National Committee for Utilities Radio and Mr. Maurice E. Kennedy representing the Associated Public-Safety Communication Officers.

The various organizations representing the Public Safety Radio Services had agreed that APCO would make the presentation of the Public Safety Radio problems to the Commission and would participate in the joint activities of the committee making arrangements for the visit. Mr. Kennedy, Director of Communications for Los Angeles County was assisted by Harvey Platt, Past President of National APCO, R. I. (Cuba) Morris, Director of Communications and Transportation of Orange County and Robert Russell, General Manager, Communications and Utilities, City of Los Angeles.

The program developed was designed to provide the Commissioners with the opportunity to see as much of the Land Mobile Radio situation in Southern California as possible. Even the breakfasts, luncheons and dinners were arranged to provide the Commissioners with the opportunity to meet with some of the management and policy-making people representing the large Land Mobile Radio users in the area. In addition to Manufacturers and Public Safety, other organizations cosponsoring the tour were American Trucking Association, Electronic Industries Association, American Automobile Association, National Committee for Utilities Radio, Aerospace Flight Test Radio Coordinating Council, Association of American Railroads, American Newspaper Publishers Association Special Industrial Radio Service Association, National Association of Taxicab Owners and Southern California Mobile Radio Association.

On Monday morning September 30 the Commissioners and guests were driven to the Rocketdyne Propulsion Field Laboratories at Canoga Park, where they observed the firing of a rocket motor from the control center. In the control center, they observed the various telemetry circuits used to control and observe such firings.

From Rocketdyne the seven Commissioners, Mr. Zapple and their guides boarded four helicopters for a trip over the San Fernando Valley, Hollywood, Downtown Los Angeles, a look at Mt. Wilson and other mountain top base station sites and then to Lockheed Aircraft Terminal at Burbank, where they were met by Mr. Donald H. Cameron, Vice President of the Lockheed Aircraft Corporation. During luncheon an unscheduled treat occurred when a U2 aircraft took off in full view of the group.

After lunch the group toured the Lockheed plant. H. W. (Tex) Davis, Corporate Director for Radio Facilities and Operations explained the use of two-way radio in manufacturing, flight test, plant security and fire protection. The tour continued with a trip through the underground Emergency Disaster Control Center. This center was designed and built to provide for essential communications in case of natural disaster or enemy action. It is equipped and ready if the need should arise. The group then continued with a visit to the Computer room where a computer "talked" to another machine located at the Sunnyvale, California plant — 400 miles away. The two computers are tied together by Telpak circuits and exchange information at a fantastic rate of speed.

Also shown was the private microwave system providing for various communication needs between the plant and the Lockheed Flight Test Radio Station which the Commissioners had previously seen from the air during their helicopter trip.

The party took a few minutes to observe some of the Business Radio Service channels in the Los Angeles area. Monitor circuits were set up at the Motorola offices in North Hollywood for this purpose. They then continued on to the central dispatch office of California Motor Express. There they witnessed an operation requiring three dispatchers, each wearing a telephone operator headset, standing at a dispatch board full of pegs. Each peg represented a truck. As dispatches were made, dispatch tickets were placed on the pegs. This completed the tour for the first day and the Commissioners returned to the Thunderbird International Hotel.

On Monday evening a reception and dinner was held in honor of the seven Commissioners and Mr. Zapple. The list of invited guests read like a cross section of a high-level government-industry conference. County supervisors, mayors, presidents and vice presidents of corporations, representatives of the State of California were there to join with many of the communications experts of industry and government. In spite of the wide divergence of organizations represented, there was no divergence of opinion concerning the problem of the Land Mobile Radio Services. Whenever the talk turned to radio, the comments all were: "We must have more frequencies."

On Tuesday morning October 1, the seven Commissioners, Mr. Zapple and their tour hosts had breakfast at the Headquarters of the Automobile Club of Southern California. Herbert Hoover, Jr., Consulting Engineer and Member of the Board of the Club and also Member of the Board of Southern California Edison, told the Commissioners of the problems of the Auto-

mobile Emergency Radio Service in and around Los Angeles.

Following breakfast, the group visited the Southern California Edison facilities near Los Angeles. Here they saw the use of two-way radio in the Power Radio Service as well as cable, "hard wire," carrier current and microwave telephony and telemetry in power control and dispatching.

At noon Tuesday, the group arrived at the Los Angeles County Hall of Administration where they had lunch with the Supervisors of Los Angeles County, Orange County and Riverside County; the Sheriffs of Los Angeles and Orange County; representatives of the International Association of Chiefs of Police, California Highway Patrol, City and County Fire Services, League of California Cities, City of Los Angeles, State of California, International Municipal Signal Association, Forestry, Conservation Communications Association, County Engineers Association, American Association of State Highway Officials, Associated Public - Safety Communication Officers, California Public-Safety Radio Association and Disaster Services.

Mr. Burton W. Chace, Los Angeles County Supervision and Mr. William G. Phillips, Orange County Supervisor spoke about the population explosion in Southern California and the problems it has created for the local governments. The Commissioners were told that new cities are being chartered and that each has police, fire and other departments needing mobile radio communications. When the latest group of cities seeking charters are incorporated, there will be 141 governmental entities in the Los Angeles metropolitan area using frequencies in the Public Safety Radio Services.

Sheriff Peter J. Pitchess of Los Angeles County talked briefly on the increase in crime and the need for more and faster communications. Chief Charles E. Simpson of Monterey, California, speaking for IACP discussed the need for radio channels free of interference in police work. He completed his talk with the comment: "If your loved ones were in danger, how long would you want to wait to see a policeman?"

Mr. Jay Michaels, Managing Director, League of California Cities, representing over 300 cities added some details on the problems of the local governments in California.

After lunch the Commissioners and their hosts visited the facilities of the Los Angeles Police Department (City) where they observed the complaint board, teletypes and the radio dispatch system involving 14 operator positions with 14 mobile frequencies and 4 base frequencies. There are four additional mobile and two base frequencies used in outlying areas making a total of 18 mobile and six base frequencies with over 1200 mobile units for Police alone.

The City of Los Angeles operates a total of 36 mobile and 18 base frequencies with over 2200 mobile units. The group also inspected the Emergency Control Center. From this point all City communications systems are available. In case of disasters, emergencies or other unusual occurrences, this room is placed in operation. Private microwave facilities are provided to back up normal wire circuits to base station sites.

Mr. Anthony J. Gain, Chief, Electronics Division, City of Los Angeles, reports that the monthly police message log exceeds 300,000 with an additional 75,000 per month for the San Fernando Valley.

From L.A.P.D. the group drove to the Orange County Communications Center where a presentation showing the problems of the Public Safety Radio Services in Southern California was made. Participating in this presentation were A. H. Keith, City of San Diego Electrical Supervisor, representing CPRA; Max Elliott, Chief Radio Engineer of Orange County, representing IMSA; with R. I. (Cuba) Morris, Director of Communications and Transportation of Orange County, Harvey Platt, Director of Communications of Riverside County and Bob Brooking, Communications Engineer of the City of Burbank handling the APCO portion.

Mr. Keith told of the problems faced each month by CPRA in attempting to provide frequency advisory recommendations in an already overloaded spectrum. In summing up his comments he stated: "Each time we issue another frequency advisory letter, we do so knowing that a degree of interference will be caused or the potential for interference exists."

Mr. Morris told the group that in 1950 Orange County had a population of 180,000. On October 1, 1963 the population of the County passed one million. It now has twenty-four cities, the largest, Anaheim, having more than 130,000 population. He showed maps of the County and its cities in 1950 and today.

Mr. Elliott traced the history of Orange County communications from its beginning with police calls being transmitted over an AM broadcast station to the present highly complex operation using 14 frequencies, more than 1000 mobile units and having systems in Police, Fire, Highway Maintenance, Foresty-Conservation and Local Government Radio Services.

He showed films of the development of numerous mountain top sites including Santiago Peak. In 1950, there were three users; today there are 67, with over 100 transmitters.

Harvey Platt, appearing for National APCO, told the Commissioners of the request by APCO for a statutory inquiry into the needs of the Public Safety Radio Services for the next ten years and requested that affirmative action be taken.

Mr. Platt continued explaining that, "our problems in Southern California may have arisen earlier or developed faster than in other parts of the country. But, in reality, what we have here is a working model of the situation with which you will be confronted over the next few years in many urbanized and industrial portions of the United States." He commented further that the same conditions exist or are developing in San Francisco, Chicago, Toledo, Detroit, Cleveland, New York, Philadelphia, Miami and Houston.

Bob Brooking, speaking as the Chairman of the Public Safety Communications Planning Committee of APCO discussed some of the previous Dockets in which APCO has been active. These included 11523, 11990, 11997 and 13847. He then discussed the present situation in Orange County, showing that although there are from 110 to 143 mobile units operating on each Police channel authorized, there are no useable channels available. All frequencies in the 45 Mc band are occupied. A chart showing the primary, secondary and tertiary channels in 150 Mc. Police assignments showed all primaries and secondaries presently in use. However, the tertiaries on 15 kc splits cannot be assigned without creating harmful interference to present licensees. To illustrate, a large map of Southern California was displayed. Three overlapping forty mile circles centered on Los Angeles, Santa Ana and Riverside brought the problem clearly into focus. These are the County Seats for Los Angeles, Orange and Riverside Counties. Thirteen miles north of Riverside is San Bernardino, County Seat of San Bernardino County. All of the area between these cities lies within two and sometimes all three of the circles. It is this area which is the most populous. Summed up — solve the problem of the three circles and the problem of Los Angeles is solved, solve Los Angeles and the problem of Land Mobile Radio is solved.

As the tour ended, there was the general feeling that the Commissioners had seen our problems for themselves; something not achieved by our comments and filings.

Log Book

Nov. 25—Effective date of FCC action service-allocating mobile radio split channel frequencies in 25-42 mc area.

Dec. 1—Comment deadline on FCC rule proposals to set up an "intruder alarm" service in Part 15 rules using ISM frequency band at 915, 2450 and 22,125 mc.

Dec. 5-6—Fourteenth national conference of IEEE Professional Technical Group on Vehicular Communications. Adolphus Hotel. Dallas.

Jan. 1—FCC-announced date for beginning of requirement for payment of "filing fees" along with applications to Commission.

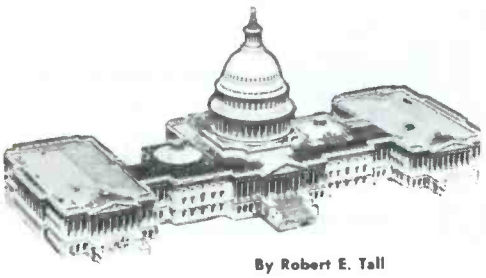
Jan. 14-16—Winter meeting of Aerospace Flight Test Radio Coordinating Council. Los Angeles.

March 31-April 1—Spring meeting of Public Safety Communications Council. Arlington, Va.

TeleMation Moves to New Quarters

TeleMation Inc. has recently moved into this new 6,500 square-foot facility located at 2275 South West Temple, Salt Lake City, Utah. The move was reportedly dictated by a need for expanded production facilities and the addition of new products to line.

TeleMation is the manufacturer of the WEATHER CHANNEL brand time/weather equipment and, according to N. B. Preece, National Sales Manager, will have available a complete line of local and remote-controlled switchers to allow CATV systems to "non-duplicate" local TV stations. Other TeleMation products include EIA adaptors for industrial cameras, and radio-controlled switchgear for remote microwave or head-end switching. TeleMation also offers engineering services to the CATV industry, having a staff of six experienced television engineers headed by Lyle O. Keys, President.



Our Man in Washington

By Robert E. Tall

Filing Fees — Having exhibited an uncanny knack for getting itself into trouble on Capitol Hill in more ways in a shorter amount of time than in recent recollection, the FCC wil be deciding some time this month what to do about a flat request from Congressman Walter Rogers (D., Tex.), Chairman of the House Commerce Committee's Subcommittee on Communications to "suspend its plan to assess license fees and other charges for services until further action by the Congress of the United States."

Congressman Rogers has been making noises about the Commission's "filing fee" plan for some months—the plan has been scheduled to go into effect January 1 — and has gone so far as to tentatively schedule hearings on a bill he introduced to "prohibit" such an activity by the FCC, but, in a letter to the FCC early this month, the Texas Congressman indicated that the press of other Congressional business may not permit hearings on his bill to take place before the end of the year.

He reiterated, in asking FCC deferment of the program until Congress can express itself on the subject, that his committee "does expect to schedule hearings at the earliest possible time," but that this "conceivably could be in the early part of 1964," and "it would be advisable" that the plan be suspended "until public hearings can be held before the subcommitee."

Power Radio "Tertiaries" — The National Committee for Utilities Radio has petitioned the FCC to move a little faster than presently scheduled by providing for the "regular assignment" of "tertiary" frequencies in the 153 and 158 megacycle frequency bands allocated to the power radio service, pointing out that the present "developmental' status of such assignments is "restricting the full use of the frequencies because of a reluctance on the part of some licensees" to make use of the band, which are "subject to cancellation" under present rules.

The channels involved in the request are those spaced 15 kilocycles apart, which are not yet available for regular assignment because of the possibility of interference on several counts from such closely-spaced operation.

NCUR pointed to the "critical requirement for additional high band frequencies" in the power service, and said its petition is an effort "to provide for the fuller use of existing frequencies as an interim measure pending Commission consideration of ways and means to provide more adequate relief to the frequency saturation problem."

The Committee said it recognizes that the tertiary frequencies "have a limited application and in all cases their use will require a high degree of coordination," but said their regular use "is feasible due to the high and efficient degree of frequency coordination which exists among power radio service licensees."

Olin-Reelected in FIRC — Robert W. Olin, of Potlach Forests, Inc., Lewiston, Ida., has been reelected Chairman of Forest Industries Radio Communications for 1964, it was reported following the meeting of the FIRC Executive Committee. Rae L. Johnson, Georgia-Pacific Corp., Portland Ore., was reelected 1st Vice Chairman, and John R. Shinners, of International Paper Co., Mobile, Ala., was named 2nd Vice Chairman. Elmer L. Surdam was also appointed Secretary - Manager of the organization for another year.

Amateur 'Proficiency' Plan — Comments from amateur radio licensees have begun pouring in to the FCC in connection with an early October petition from the American Radio Relay League for rulemaking to restrict amateur radiotelephone operation on certain high frequency amateur bands to only amateur extra and advanced class licensees after a period of time. A quick look through the first several dozen comments submitted to the Commission indicated that the filings were running roughly ten-to-one against the ARRL proposal.

Relief for Door Openers Asked — The Door Operator and Remote Controls Manufacturers Association has petitioned the FCC for rulemaking which would permit low power communication devices used for the remote radio control of garage door openers to be operated on frequencies above 225 megacycles under a somewhat changed set of conditions from those now in the Commission's restricted radiation rules.

Of the three frequency areas now available for such operation — 10 to 490 kilocycles; 26.97 to 27.27 megacycles; and above 70 mc — the association said, the latter offers the most promise, since controls operating in the first band have "very poor operation distance," and the power requirements and physical size of components necessary are not consistent with small dry battery operated transmitters, and controls at 26.97 — 27.27 mc are "subject to serious interference" from Class D citizens radio operations.

Support for Public Safety Changes— General support is being expressed by public safety radio representatives throughout the country for FCC rulemaking proposals which would bring such changes as increases in transmitting power and antenna height, as well as changes in station locations, under the frequency coordination procedures of the various public safety radio services (VCJ, October).

CB "Seminars"—Administrative headquarters for the American Citizens Band Association, which is being established with offices in Oklahoma City, has scheduled a series of "seminars" for class D citizens radio service licensees throughout the country for the purposes of "evaluating" outstanding FCC proposals which would substantially revise the CB radio rules.

Loevinger Cites FCC Workload — FCC Commissioner Lee Loevinger, in a Portland, Ore., speech drew on the statistical strength of nonbroadcast radio activity in the country to reach the conclusion that the "FCC has an extremely heavy workload for the size of its staff compared to any other federal agency; and, perhaps, has the heaviest workload in relation to staff size of any agency within the governmental structure," before discussing some of the broadcasting problems which are facing the agency.

While Mr. Loevinger's speech — on "Problems, Procedures and Policies of the FCC" — was a repeat in many respects of remarks he has made previously, it did make more frequent references to nonbroadcast considerations, including recognition that the FCC's job is to "regulate all non-governmental radio transmission, including both broadcast and nonbroadcast services," as well as telephone and

telegraph services.

In fiscal year 1963, he recalled the "three major areas of licensing activity" at the Commission involved "approximately one-half million applications" in the safety and special radio services field; about 8000 common carrier applications; and about 14,500 applications in the broadcasting field. He noted that most of the nonbroadcast services "are clamoring for more spectrum space and many would like to use some of the broadcasting band channels."

Bell System Studies — After successful detailed studies of the communications requirements of at least ten US industries, Bell System task forces have turned their attention to a number of other fields, a roundup report on the subject indicates. Field being studied currently including banking, insurance companies, college dormitory facilities, law enforcement agencies, and hospitals, among others.

One of the outstanding results of the prior studies has been the spread of guest dial service motels and hotels. Virtually unknown five years ago when the study was undertaken, guest dial is not in more than 1300 hotels and motels, with a combined total of 275,000 rooms equipped. Other fields covered in prior studies were department stores, airlines, newspapers, brokerage houses, motor carriers, gas companies, railroads, power companies, and petroleum companies.

FCC Asks Data — A major effort toward making the FCC a "better informed regulatory" agency — at least with respect to its responsibilities to US citizens interested in using a portion of the radio frequency spectrum for land mobile radio purposes —has been launched by FCC Safety and Special Radio Services Bureau Chief J. E. Barr, who called on all frequency coordinating agencies in the safety-special services to provide the Commission with descriptions of their activities.

In his letters to the various coordinating groups, Mr. Barr particularly commended the organizations for their assistance to the Commission in helping to get the maximum possible utilization out of the land mobile radio frequencies, and for the "tremendous importance" of their activities.

Coordination Fees? — The question of the possibility of having the frequency coordinating committees of the various land mobile radio services charge "fees" to support their activities, which has been under discussion for some time, broke into the open meetings of the Public Safety Communications Council in Chicago and the frequency coordinators of the Special Industrial Radio Service Association in Washington. FCC officials were on hand at both meetings, but expressed no opinions on the subject at either.

The PSCC established a committee to report back on possible procedures at its meeting next Spring. SIRSA, which discussed the idea for the first time — it originated elsewhere — took no position on the possibility, in view of what it regarded as many "problems" involved.

FCC vs. FAA on Antennas — In comments submitted to the Federal Aviation Agency, the FCC has made it clear that is has surrendered none of its "statutory" authority to the FAA with respect to deciding whether it will license a particular radio antenna tower. The Commission's comments were directed toward FAA proposed rulemaking to "substantially relax and simplify the existing requirements for sponsors of construction or alteration to notify the Agency of their proposed structures." (VCJ, October).

The FCC said it is "in accord with the objective" of the FAA in amending the latter's Part 77 regulations to "relax and simplify the notice requirements, provide obstruction standards which would be uniform for all of the FAA programs, and make minor revisions of the FAA procedures to ease the administrative workload and expedite the processing of cases."

It recommended a number of changes in the FAA proposals, however. Under the present rules, the Commission pointed out, the FAA evaluates proposed construction or alteration with a view toward determining whether it would result in a hazard to air navigation," while the proposal contemplates the determination being made in the future on whether it would have "an adverse effect on air navigation."

"It appears," the FCC said, "that the change would likely result in more adverse recommendations because there are obviously many proposed towers which might not constitute a hazard to air navigation, but which would have an adverse effect on air navigation." It "does not seem to depart from the present test," the Commission declared.

Other parties commenting on the proposed revisions included the National Committee for Utilities Radio; the American Petroleum Institute's Central Committee on Communication Facilities; and the Special Industrial Radio Service Association.

NAM Group Changes Name — The National Association of Manufacturers' Committee on Manufacturers Radio Use, at its fall steering committee meeting, came out of the session with a new name — the National Association of Manufacturers Committee on Telecommunications Use— and the groundwork for further action to seek additional radio spectrum space for non-broadcast users of the frequency spectrum.

Victor G. Reis, of the Bethlehem Steel Co., who heads the NAM group, pointed out that the name of the organization was changed to reflect the

larger scope of the committee, which is taking an active role in overall communications problems of the nation's basic manufacturing industries, as well as concerning itself with two-way radio and microwave communications issues.

FCC Rejects RCC's Plea — The FCC rejected the arguments of two Texas radio common carriers and declined to suspend mobile radiotelephone service tariff revisions of the General Telephone Co. of the Southwest covering service at points in Texas and New Mexico.

The tariff revisions provide for a reduction in installation charge for mobile equipment from $50 to $7.50; a $25 surcharge where the mobile service contract is terminated within six months after it has become effective; and a flat monthly charge of $11.50 per mobile unit in lieu of a message unit charge of five cents per message unit with a $7 monthly minimum.

The two RCC's which had protested the amendments — W. L. Anderson, who serves the San Angelo area, and PerryTex Communications Co., serving Perryton — had urged the Commission to suspend the revisions on the basis that the reduced installation charge is noncompensatory; the proposed termination charge is contrary to the Commission's general policy relating to maximum contract period for mobile telephone service; and the revisions may have a serious competitive impact upon their operations.

The FCC pointed out that "After consideration of the reasons and economic data submitted by (General Telephone) in justification of the tariff proposals, the Commission concluded that they should not be suspended."

New SIRSA Officers — In mid-term elections occasioned in both cases by the reassignment of the officers involved, the Special Industrial Radio Service Association Board of Directors has named Francis C. Williams, of the Dravo Corp., Pittsburgh, Pa., as the association's new First Vice President, and J. Goodwin Moore, of Moore, Kelly and Reddish, Inc., of Orange, Va., as Treasurer if the organization.

Mr. Williams succeeds J. L. (Roy) Cox, of International Minerals and Chemical Corp., Bartow, Fla., as the second officer of the association, under SIRSA President Victor P. Jiminez, of Vulcan Materials Co., Birmingham, Ala., and Mr. Moore, who has been serving as Assistant SIRSA Treasurer, moves into the post vacated by the resignation of Anthony Lizzio, of Associated General Contractors of America, Washington, D.C. The new assistant Treasurer is Vincent P. Ahearn, Jr., of the National Sand and Gravel Association, Washington, D.C.

At the same time, the SIRSA Board accepted the resignation of Executive Secretary Wayne V. Black, effective the end of next January. Mr. Black, after completing his work toward a law degree, will be going into private law practice.

Another action of the Board, instructed SIRSA General Counsel Jerome H. Heckman to draft a statement to the FCC in support of petitions on file at the Commission from the American Petroleum Institute's Central Committee on Communication Facilities and the National Committee for Utilities Radio to provide for the regular licensing of "splinter" frequencies in the 150 megacycle band for point-to-point remote control and telemetering purposes. Heretofore, the frequencies, which are adjacent to "high band" mobile bands, have been available to industrial radio licensees as a whole on a developmental basis.

PSCC Commended — FCC staff representatives have strongly commended the member organizations of the Public Safety Communications Council, and its chairman, Max Guiberson, PSCC delegate from the Forestry, Conservation Communications Association, for having gotten a program for the coordination of frequencies in the local government radio service off-the-ground and into a "really working" status since the group began formally functioning as a coordination committee May 1.

FCC Public Safety Division Chief John J. McCue, and Leonard S. Kolsky, Chief of the Division's Rules and Standards Branch, however, made clear at the PSCC meeting in Chicago that the Commission expects a number of "bugs" which have shown up in the local government coordination effort to be ironed out as quickly as possible.

Thomas P. O'Brien, Chief of the New York World's Fair Fire Department, representing the International Municipal Signal Association on the Council, was elected Chairman of the PSCC for the next term, succeeding Mr. Guiberson as of the first of next year.

Hatch to Head IMSA — The frequency coordination machinery of the International Municipal Signal Association was complimented by FCC Public Safety Division Chief John J. McCue during IMSA's meeting in Houston, Texas, for its stimulation in having radio service licensees move relatively quickly onto new "split channels" in the 150 megacycle band — to the point where there are now about 700 fire radio stations using the 16 splits in the band — but the fire coordinators were urged by the FCC official to take a more active role in their added responsibilities of local government radio service frequency advisors.

In a meeting with the fire radio service frequency coordinators, Mr. McCue stressed that the job of local government frequency coordination is a function of the Public Safety Communications Council to which IMSA has subscribed, and that when an advisor is acting on a request for local government frequency clearance, he is operating in a PSCC capacity, rather than an IMSA role, and should treat the request with as much urgency as he would a request for a fire radio service clearance.

During the IMSA conference, Ralph O. Hatch, Electrical Chief of Aberdeen, Washington, was elected new President of the association, to succeed Robert S. Joliff, Traffic Engineer of Wichita Falls, Tex.

INVITATION!

We are inviting **your** comments on the editorial content of Video-Communication Journal. The job of presenting vital reading in the specialized fields of CATV, MATV, two-way communications, microwave and transmission line technology is both challenging and important. Our responsibility to YOU our readers, is keenly felt. It is our desire to supply you each month with exactly the kind of publication YOU want. So — will you do us a favor? Drop us a line and let us know your comments and criticisms. Your helpfulness will benefit other readers, ourselves and YOU!

ANNUAL DIRECTORY ISSUE

Month after next our annual directory of CATV equipment (and associated products and services) will be out. Last year we did not print enough copies of the Directory Issue to meet the demand. This year we are printing a much larger number. But, with the increased number of readers and the constantly growing interest in CATV, MATV, CCTV, ETV & STV, we cannot be certain that there will be sufficient magazines for those of you who wish extra copies. So, order early to make sure that you receive all the copies you need for reference and distribution to key personnel. Extra copies will be the same price as last year — $1.00 each — for a wealth of current, accurate information.

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CATV LAW OF THE LAND

One thing is **almost** sure, if the community antenna television business does not produce results at an FCC level within the next month or so — probably it will come before Christmas — you can expect some indication from Congress that proposed legislation will be considered to take the problem out of the hands of the FCC and put it where it belongs.

Congressional leaders, including Chairman Oren Harris, of the House Interstate & Foreign Commerce Committee, have been more vocal in their criticism of the FCC for its unwarranted assumption of power in recent months than at any point in the 29-year life of the FCC, and in this case, at least, the Commission's determinations have very little possibility of becoming the final law of the land.

The feeling within the CATV industry, of course, is that the Supreme Court and the US Court of Appeals for the District of Columbia Circuit, will agree in connection with the Carter Mountain and Wentronics cases before them, respectively, that the FCC actions with respect to the CATV field have been within its stated area of jurisdiction in the absence of further law on the subject, but the industry does not for a minute consider that the case is closed at that point.

There is little doubt that the FCC staff, feeling its oats after the Carter Mountain decision by the Appeals Court, will push the momentum to recommend to the Commissioners that the agency negotiate no further with CATV operators as to whether the CATV industry should be regulated by the Commission, and will recommend that direct regulation of the industry be assumed.

It is equally probable, however, that the industry will go for its own legislation at the Congressional level to determine whether the FCC or the Congress is making the laws of the nation, and, with no disrespect to the courts intended, will elicit enough support to make clear the fact that a TV program, originally intended for all members of the public who can hear or see it, is, in fact a "public" message and, as such, can be extended by the CATV industry to anyone who will bear the freight.

Congressman Harris said a month or so ago in a public address that he is old-fashioned enough to think that Congress, rather than the FCC, should be deciding problems of this magnitude, and, no matter what the outcome, we agree that the decision is one that Congress should make.

One thing that has been holding up more industry activity in the CATV field, of course, has been the lack of a President of the National Community Television Association since Bill Dalton's resignation to enter private consulting practice. The NCTA Board of Directors was to meet in Chicago Nov. 18-20, however, and an announcement was expected during or shortly after that meeting.

The problem as to what to do about CATV had been tentatively scheduled to be brought before the FCC Commissioners earlier this month but, as usual, was passed over for later consideration.

Further business radio service microwave authorizations issued by the FCC, meanwhile, continue to include the controversial "condition" that "If the CATV system operates within an area within the predicted Grade A contour of any television broadcast station in operation, or which subsequently comes into operation, the CATV system must not duplicate simultaneously or 30 days prior or subsequent thereto a program broadcast by such television stations, provided the CATV operator has received at least 30 days advance notification from the broadcast station licensee of such broadcast. Further, if requested by the television licensee, the CATV system must carry the signal of such station without material degradation in quality."

The several celebrated cases involving distribution of television signals by antenna systems, meanwhile, continue to bubble along at the FCC with very little clear direction from the Commissioners to the FCC staff, with the former not over-anxious to stick their necks out farther than necessary, and the latter not wanting to hear from the former anyway.

Since the last issue of VCJ, of course, Wentronics, Inc., which serves Casper, Wyo., has appealed the FCC's decision regarding it to the US Court of Appeals for the District of Columbia Circuit (See Channel One, this issue VCJ).

The Wentronics notice of appeal is to the Commission's decision imposing a 30-day prior and subsequent delayed non-duplication agreement as a condition precedent to the grant of a private intrastate microwave license under the FCC's business radio service rules.

Wentronics' appeal to the court is based on the contentions that: "(1) The condition attached to the radio authorizations is an unlawful action constituting an effort to extend the Commission's authority beyond its statutory jurisdiction; (2) The condition constitutes a form of censorship and interferes with rights of free speech; (3) The condition constitutes an abridgment upon the freedoms of speech and press; and (4) The condition is violative of the Fifth Amendment to the US Constitution in that it deprives (Wentronics) of liberty and property without due process of law."

CATV BRIEFS

TV ANTENNA MANUFACTURERS TO FIGHT CATV

Twelve manufacturers of outside television receiving antennas have met in Cleveland, Ohio to form an association to "oppose the raft of Community Antenna Systems emerging throughout the land."

The Television Accessory Manufacturers Institute (TAME) plans campaigns both on a national and regional level as well as directing a fight to the FCC for what the group termed "proper controls" on CATV systems.

In answering the charges of the group, NCTA Chairman Fred J. Stevenson noted "The antenna manufacturers should turn the clock back a half century and read about the money wasted by buggy-whip manufacturers in trying to prevent the advent of the automobile. In thousands of communities throughout the United States, the public demands CATV service because it wants clear TV reception and a wide choice of TV signals. This it gets from CATV systems. Evidently this is not something the public has been able to get from the home television antennas.

"No amount of money spent in a public relations program will obscure these facts. It would seem to me that antenna manufacturers could make better use of their funds in trying to develop, if this is feasible, a rooftop antenna which does not begin to deteriorate perceptibly in performance within a few months, from erosion of the elements. In many fringe TV reception areas this would mean the difference between good and poor TV reception."

TAME is made up of the following television accessory equipment manufacturing firms: Alliance Corporation, Alliance, Ohio; Antennacraft Company, Burlington, Iowa; Antenna Designs, Inc., Burlington, Iowa; Channel Master Corporation, Ellenville, New York; Clear Beam Antenna Corporation, Canoga Park, California; Cornell Dublier Electronics Division, Fuquay Springs, N.C.; The Finney Company, Bedford, Ohio; JFD Electronics Corporation, Brooklyn, New York; Kay-Townes Antenna Company, Rome, Georgia; S & A Electronics, Inc., Toledo, Ohio; Spauling Products Company, Frankfort, Indiana and The Winegard Corporation, Burlington, Iowa.

MORE UHF CHANNELS FOR EDUCATORS

The FCC invites comments before January 3 on a proposal to add over 400 new assignments to the present Table of Assignments.

In report number 4841 dated October 25, the Commission plans to step up UHF educational allocations by bringing to 44 the total number of cities with 2 educational reservations (8 now have two) and to provide at least one commercial assignment to every town with a population of 10,000 or more, unless that town is very close to a much larger city.

In many cases in the new assignment channel, according to the Commission, when a choice was presented between a second or third commercial channel for a single city and a first commercial channel for a smaller nearby city, the nod was given to the "first channel assignment."

Population density of the state under consideration was the prime factor in the new assignment table.

(STV OR BUST — continued)

will be transmitted to RHD through subscriber interrogation equipment which is a part of the automated recording and billing process in the overall system.

RHD will be paid for its services on the basis of complete reimbursement for all direct and indirect operational costs, by STV, plus a service fee so calculated as to give RHD a net profit, after provision for Federal Income Tax at the rate then prevailing of 8½ percent of the RHD to subscriber billings handled.

The term of the RHD contract is through June 18, 1969.

EQUIPMENT SERVICE AND INSTALLATION

STV has entered into an agreement with Lear Siegler Service, Inc. (LSSI) under which a separate division of LSSI is to perform installation and maintenance services of all equipment other than that contracted for by the telephone companies, and that under the direct supervision of STV for the origination of STV programming.

STV will pay to LSSI the total direct and indirect costs of LSSI in performing this contract, plus a service fee so calculated as to give LSSI a net profit after provision for Federal income tax, of 8% of LSSI billings (including the service fee).

LSSI will **not** be responsible for the performance of any program selector or other equipment furnished by STV, or any television receiver.

EQUIPMENT AND MANAGEMENT CONTRACT

STV has also entered into an agreement with Lear Siegler, Inc. (LSI), the parent company of Lear Siegler Services, Inc., whereby LSI will provide to STV research and development services in the area of program selectors, interrogation units, plug-in modules for the expansion of the interrogation units and spare parts for all units.

LSI will also furnish the necessary system management engineering services to assist the establishment and development of the STV systems in San Francisco and Los Angeles. LSI will supervise, inspect and accept all work done by subcontractors in connection with the installation and establishment of the STV systems.

STV is paying to LSI a fee of $860,000 for such systems engi-

neering management services performed prior to the date of their agreement, August 9, 1963, and to be performed during the 18-month period which follows their agreement date.

For a period of 36 months after the 18 month initial period is over (beginning February, 1965) LSI will furnish additional system engineering management services for the cost of direct expenses incurred by LSI **plus** 15% of the aggregate costs of the direct expenses.

MANAGEMENT

Noteworthy among the management now involved in the initial phases of STV is Sylvester L. Weaver, Jr., President, Treasurer and a Director of STV.

Mr. Weaver has been Chairman of the Board of McCann-Erickson Corporation, and is a past President and Chairman of the Board of the National Broadcasting Co.

Also on the management team is Robert C. MacLeod, Vice President, Assistant Treasurer and Assistant Secretary. Mr. MacLeod has been Publisher of Seventeen Magazine, Vice President and Director of Advertising for Hearst Magazines and for a five year period Publisher of Harpers' Bazaar.

Mr. Weaver's contract calls for an annual salary of $85,000 plus an amount not to exceed $165,000 in any one year equal to one percent of the firm's consolidated net earnings prior to Federal taxes.

WHO IS BACKING STV?

While money and those who have it invested never tell a complete story, those individuals and firms involved in the initial STV operation for Los Angeles and San Francisco certainly will have a great deal to do with the success or failure of STV.

The **total** number of shares for which STV is seeking authorization by the Securities and Exchange Commission is 3,528,972. They will be divided as follows, according to a perspectus dated October 3, 1963.

The Reuben H. Donnelley Co.	**250,000**
Lear Siegler, Inc.	**250,000**
William R. Statts & Co.	**45,000**
Donald A. Petrie	**10,000**
National Exhibition Co. (Giants)	**54,000**
Los Angeles Dodgers, Inc.	**71,000**
Donald B. Harrington	**72,500**
N. B. Hunt	**185,000**
Caroline Hunt Trust Estate	**50,000**
Draper, Gaither & Anderson	**10,000**
William P. Lear	**55,555**
Tolvision of America	**555,917**
R.A.L. Investment Company	**10,000**
Lansall Corporation	**10,000**
Members of the Public	**1,900,000**

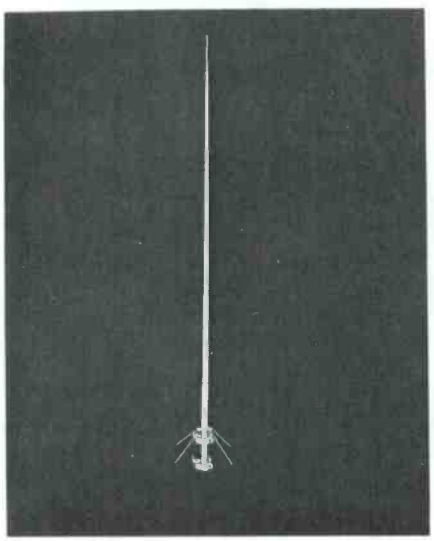
New Product Horizons

COMMUNICATIONS

Andrew Corporation, Chicago, Illinois has announced a 50% increase in average power ratings for 3/8 inch and 7/8 inch HELIAX cables, and a 20% increase in new 1 5/8 inch type H7-50A cable. These cables now use a new higher temperature insulating material recently introduced in 3 and 5 inch HELIAX cables. The new insulation permits higher average power ratings and a significant reduction in attenuation over comparable cables, according to Andrew.

The Andrew Corporation has also announced a new 150 megacycle omnidirectional high gain antenna to cover the frequency range 150 to 162 megacycles in 3 megacycle octives.

The new antenna, designed for mobile communication service, has a 6 db gain figure and a VSWR of 1.5 to 1 or lower over any 3 megacycle segment of the band, or a VSWR of 2 to 1 or lower over a 5 megacycle segment.



No field tuning or adjustments are necessary with the new antenna, which features a fiberglas radome to protect the radiating element. The antenna is designed to withstand winds up to 125 miler per hour. For engineering specifications on the Type 150 antenna, request Bulletin 8508 from the Andrew Corporation, P.O. Box 807, Chicago, Illinois.

The Utica Communications Corporation, 2917 W. Irving Park Road, Chicago 18, Illinois has announced a pair of new VHF receivers.

The Uti-Com FM receiver is designed to operate from 12 volts DC as a crystal controlled mobile monitor on any frequency in the 150 to 174 megacycle region. The receiver, which sells for $149.95, features 12 tubes and two transistors, plus a specially designed i.f. filter for elimination of unwanted adjacent channel signals.

Also new from Utica is a base station low and high band FM Monitor receiver that covers 30 to 50 and 150 to 174 megacycles.

The "Duo-Band" (tuneable) receiver features a double conversion super-het basic receiver design with squelch, tuned RF stage, crystal controlled second oscillator and temperature compensation for control of drift. The receiver, which sells for $164.95, is for 117 VAC operation only.

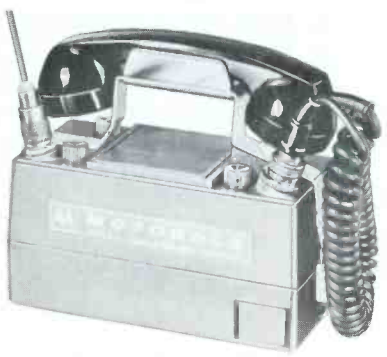
Aeronautical Electronics, Inc., (Aerotron) has announced a new and "exceedingly compact" 35 watt VHF FM transceiver for base station use.

Designed for the "typical business radio service user," the new set has up to four channel capability, and provision for plug-in adaption of Aerotron's UNICALL selective calling system.

Literature and data on the new AEROTRON Slimline 35 Watt Base station is available from the firm on U.S. Highway 1, North, Raleigh, North Carolina.

Price of the new set is $425.00.

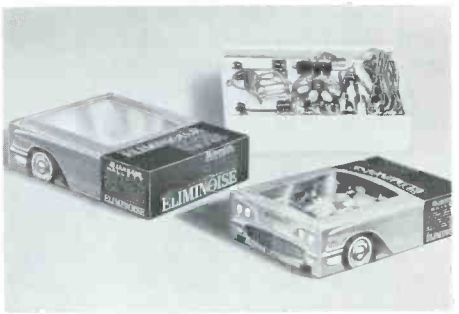
The Communications Division of Motorola, 4501 West Augusta Blvd., Chicago 51, Illinois has announced a new Handie-Talkie FM radio line designed for use by governmental agencies to provide short range communications in the 25 to 54 or 144 to 174 megacycle bands.



The new compact hand-carried sets are ready to operate at only 6 pounds carry-away weight. The sets are available in the 5 and 1.4 watt versions for 25 to 54 megacycles and 3 and 1.4 watt versions for 144 to 174 megacycles. Receiver sensitivity is 0.5 microvolts in the low band versions, 0.3 microvolts in the high band version. The radios can be powered from a single rechargeable nickle cadmium battery, and can be equipped with Motorola's Private-Line selective calling system.

The first "untiversal-type" automotive shielding kit for ignition systems is claimed by the **E. F. Johnson Company** of Waseca, Minnesota.

Developed from combined research of the E. F. Johnson Company and the Hallett Manufacturing Company, the new relatively low-cost Eliminoise kit can be easily installed on 6 or 8 cylinder engines. The Eliminoise kit utilizes existing automotive components for best performance of the vehicle and maximum economy, and does not require special shielded-type spark plugs. A specially designed ignition coil shield with an integrally mounted capacitor effectively controls interference from the switch lead as well as radiated interference from the coil terminals.



Patents are pending on the kit, which is now available at E. F. Johnson distributors at prices varying from $29.95 (six cylinder version) to $38.50 (8 cylinder version). Full technical information is available from the manufacturer, Waseca, Minnesota.

TEST EQUIPMENT

A new crystal controlled signal generator designed for production line testing and shop check out of two-way radios operating in the Citizens Radio Service (27 megacycles) has been announced by the **Ferris Instrument Company** of Boonton, N.J.

The new instrument provides 24 spot frequencies in the range 26.965 to 27.255 megacycles, to an accuracy of 0.005% and a stability of 0.001%. Each frequency is generated by an individual crystal and any frequency may be instantly selected by a master switch on the front panel. The meter output is adjustable over the entire range from 1 volt down to 0.1 microvolt full scale by vernier and decade attenuator. Internal modulation is 400 and 1,000 cycles per second, or external modulation from 100 to 5,000 cps. Full data sheet on the instrument is available by writing Mr. Paul Bernard, Manager, Ferris Instrument Company, 110 Cornelia Street, Boston, N.J.

The Jerrold Electronics Corporation has announced their Model 10-15-LA combination video sweep generator and precision RF log amplifier for testing frequency response and attenuation of video frequency circuits, crystal filter, filter networks and amplifiers.

The unit has dynamic operating ranges down to 85 db in the 500 kc to 15 megacycle region.

VIDEO EQUIPMENT

J. D. Scanlon, Manager of the Commercial Sound Department, **North American Phillips Company, Inc.,** 230 Duffy Avenue, Hicksville, New York invites CATV system owners contemplating CCTV operations to write him asking for data sheets on his firms Model EL8000 closed circuit

compact TV camera.

The unit is completely transistorized, and features rugged operation and ease of controls so inexperienced personnel can get good "pictures" every time.

RF output is on channels 2, 3 or 4. The unit weighs 11 pounds and operates from 117 VAC. Its output level is 1.4 volts peak to peak across a 75 ohm line.

The Distributor Sales Division of **Jerrold Electronics** has unveiled a new all channel UHF converter with two models available. Both top-of-the-set converters tune channels 14 to 83.

A third Ultra-Vista model features a stage of UHF preamplification for translator and MPATI areas.

The Super Vista series is the top of the line. This converter features 8-12 db gain over the entire frequency range covered. The mixer is a 1N82A silicon diode while the oscillator is the 6DV4 Nuvistor. The IF amplifier is a PADT-28 transistor.

The converted and amplified signals through all models come out on IF channels 5 or 6.

CLASSIFIED SECTION

Rates for classifieds are $2.00 per line or fraction thereof for advertising which, in our opinion, is obviously of a non-commercial nature. A charge of $20.00 per column inch (2¼" col.) is made to all commercial advertisers. We do not bill for advertising in the CLASSIFIEDS, nor can we acknowledge receipt of copy sent in. Full remittance MUST accompany all orders. NOTE: The products and services advertised in this section are not guaranteed by the publisher of Video-Communication Journal. Deadline, 1st of second preceding month (i.e. Deadline for December issue is October 1).

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WANTED: Model 220 Jerrold Sweep Generator in top condition. Write or Call, giving price—NOW. To **William Turner, Video Cable Co., Inc.** — Box 881 Waynesville, N.C. Phone 452-4642.

(SYSTEMS HORIZONS — continued)

Kellogg, has been with the Secode firm since the new Division was created in April.

Andrew A. Andros, President of **Hy-Gain Antenna Products Corporation** in Lincoln, Nebraska has announced the advancement of Sid T. Kitrell to Director of Sales and Advertising. At the same time Jack C. Schneider has been named to the post of Distributor Sales Manager.

Mr. Kitrell has been Sales Manager for Hy-Gain for the past four years. Mr. Schneider joined Hy-Gain this past summer, coming directly from Radio Shack Corporation, Boston.

A. Earl Cullum, Jr. and Associates, Consulting Radio Engineers with home offices located in Dallas, Texas, has announced the addition to the firm of Colonel DeWolf Schatzel, U.S. Marine Corps, (retired).

Colonel Schatzel has been Director of Engineering for the Midwest Program on Airborne Television Instruction (MPATI) from 1961 until his resignation to join the Cullum firm.

PLACES . . .

Bruce Merrill, President of **Ameco, Inc.,** has announced the acquisition of a new building for expansion of the Phoenix company's production facilities.

Merrill reported the increased need for production space has been brought about by "nationwide acceptance of Ameco's fuly transistorized line of all-band amplifiers." Ameco reports on hand orders for more than 4,000 transistorized amplifiers, and that the company is currently delivering equipment to five contract jobs totaling in excess of 650 strand miles of CATV system.

CATV equipment sales for the fiscal year ending June 1963 were reported at "over $2,500,000.00" by an Ameco representative.

Canadian and United States broadcast engineers attending the French Exhibition in Montreal, Quebec late in October had an opportunity to see the first showing of the new Mark 10 Visual Zoom Image Orthicon camera, which was displayed there.

The camera features a 10 to 1 built-in zoom lens and complete solid state circuitry. The new camera, to be offered exclusively through **Visual Electronics,** will sell for $15,500, including the built-in zoom lens, viewfinder, control unit with power supply and remote control panel.

THINGS . . .

Allied Electronics Corporation, a subsidiary of Allied Radio Corporation, has been named national distributor for electronic test instruments by the Communications Division of Motorola, Inc., Chicago.

The current models of transistorized DC Multimeters and AC Voltmeters are now available for immediate shipment from Allied's headquarters and 13 industrial sales offices throughout the United States.

Bob McCaw of **Mutual Electronics Supply,** Seattle, Washington has announced a reorganization of his firm to "better serve the needs of the Community Antenna Television industry in the Pacific Northwest." A new division, to be known as **CATV Equipment Company,** will now serve exclusively the growing needs of the CATV industry in that area. CATV Equipment Company is staffed with personnel with a total history of more than 70 years in the CATV field. Local inventory and service is also being expanded. The new division is located at 144 Lakeside Avenue in Seattle.

Standard Electronics Corporation has been purchased by William H. Zillger, its former vice-president and general manager. Under the direction of the new owner, the firm plans to open new offices in Manalapan Township, Monmouth

(CONTINUED — page 35)

17 Engineering Papers Scheduled

PTGVC

MEETS IN DALLAS DEC. 6 - 7

A key address of James E. Barr, Chief of the Federal Communication Commissions Safety and Special Services Bureau will be one of the many highlights scheduled for the December 5 and 6 meeting of the Institute of Electrical & Electronics Engineers' Professional Technical Group on Vehicular Communications (PTGVC) scheduled for the Hotel Adolphus, Dallas, Texas.

Mr. Barr, Thursday evening banquet speaker, will present a look into the future and suggest some possible resolutions of the problems currently facing land-mobile radio users.

Also on the featured-speaker program will be R. P. Gifford, General Manager of the General Electric Communication Products Department.

Last years meeting, held in Disneyland, California was the 13th annual conference in this series.

The PTGVC Conference will also feature the presentation of 17 papers on subjects ranging from quality of mobile microphones through directional antenna applications. The group has announced that papers to be presented will cover "mobile telephone applications, radio engineering and field survey methods, new and different applications of antennas, varactor multipliers, transistors, continuous tone squelch systems and mobile frequency spectrum congestion." All papers will be delivered by leaders and specialists in the industry.

The conference has already attracted the largest single grouping of manufacturers in the industry event history, and an equally representative turnout of industry engineers is expected for the meeting.

A full report on the 14th annual PTGVC Conference will appear in the January issue of this journal.

County, N.J. around the first of the year.

Standard specializes in the manufacture of television and radio transmitting equipment for the broadcast industry.

More than $215,000 in new VHF two-way radios and their spare parts will be delivered to the U.S. Navy starting in January, as a result of a recent contract consumation by the Raytheon Company. The sets will be manufactured in Raytheon's Marine Products Operations in South San Francisco, California.

VHF naval communications are now widely utilized in the ports of northern Europe and acceptance is rapidly growing in other shipping centers of the world. In many ports shore-based, harbor radar systems for traffic are controlled by VHF two-way radio.

The new Raytheon units for M.S.T.S. vessels will have 28 crystal controlled channels in the 152 to 162 megacycle international marine band.

Net earnings of 1.65 per share have been announced by **Collins Radio Company** president Arthur A. Collins for the fiscal year which ended August 2, 1963.

This compares favorably with net earnings of $1.56 per common share for the same fiscal period in 1962.

Collins' year end report noted a backlog of undelivered orders totaling $241,000,000 for fiscal year termination 1963 as compared with $230,000,000 for fiscal termination 1962.

During a recent trip through the Pacific Northwest, a member of the VCJ staff dropped into the plant of the **Jack Pruzan Company** in Seattle. We were well aware of the reputation that Jack and his boys have built for supplying CATV hardware to the nation's largest (and smallest!) systems. But we were none the less impressed by the extent of the stock maintained at the Seattle operation.

Herb Pruzan guided us on a tour which also revealed a wide assortment of safety equipment, lineman's tools and supplies and carloads of messenger strand and pole line hardware. Herb showed us dozens of specialty items which they stock especially for the CATV industry, and an equally impressive array of equipment for the power and telephone transmission line fields.

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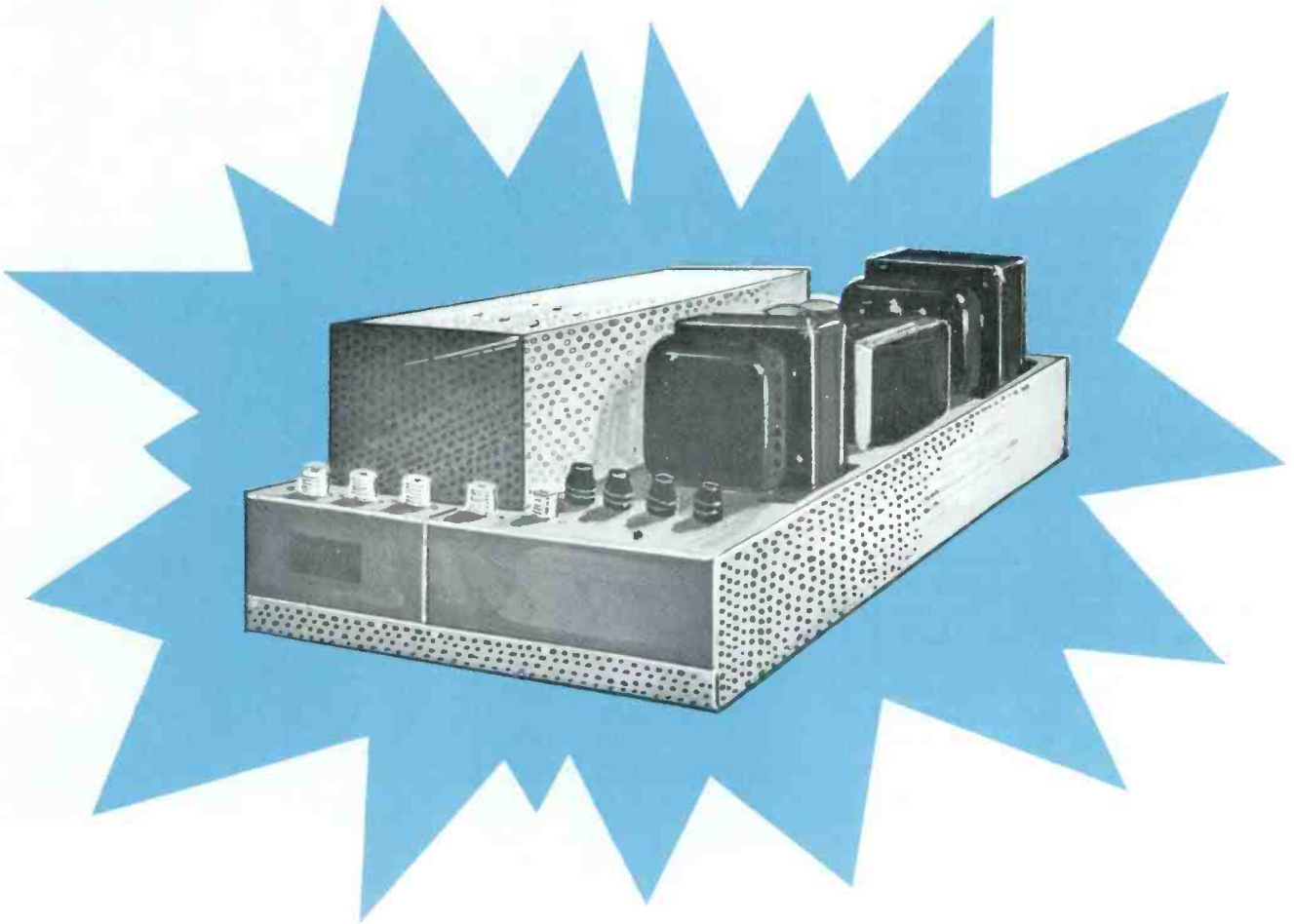

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May 30th, 1963

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