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BMUE

THE MAGAZINE OF BROADCAST MANAGEMENT/ENGINEERING



In This Issue/Successful Programming & Promotion

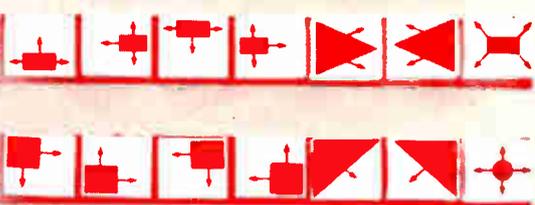
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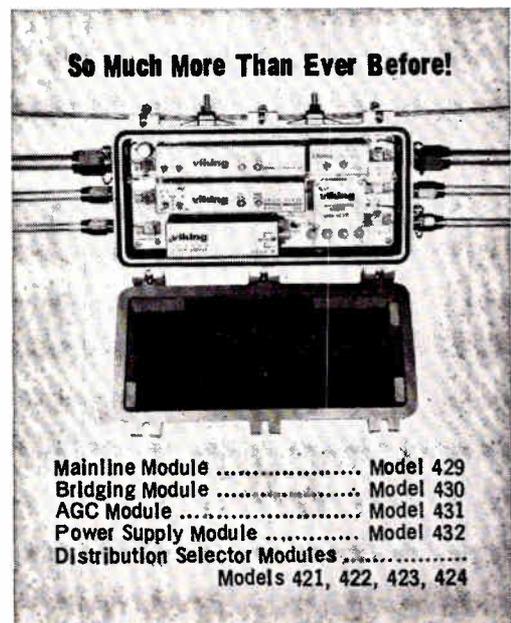
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BM/E

THE MAGAZINE OF BROADCAST MANAGEMENT/ ENGINEERING

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Format of this month's cover is programming.

In case we're not as clever as we'd like to think we are, elements covered include entertainment (live and rerun), sports, news, education, public service.

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“...CBS Volumax performs flawlessly. Please do not invent any more until we wear these out. At the present rate of deterioration, we will need to replace them by 2015 A.D.”

This is what station WRNC in Raleigh, North Carolina, said about our equipment. They own both the Audimax Automatic Level Control and the Volumax Automatic Peak Controller. Station WIGS in Gouverneur, New York, wrote, “Enclosed find check for Volumax 400. You couldn’t get it back from us for twice the price . . .” KLIN in Lincoln, Nebraska, purchased Audimax. They told us, “It is an engineer’s dream for absolute level control”. WAYB in Waynesboro, Virginia, tells us, “Purchased a Volumax and we are tickled to 99 and 44/100% modulation with it . . . Congratulations on a fine product”. Station KHOW in Denver, Colorado, said, “It was surprising to receive equipment that exceeded specifications”.

There isn’t enough space here to include all the letters we’ve received praising Audimax and Volumax. But judge for yourself. Like all CBS Laboratories equipment, they’re available for a 30-day free trial. Audimax \$665. Volumax \$665. FM Volumax \$695. Write to us, or better yet call The Professional Products Dept. directly — Collect. Telephone (203) 327-2000. Maybe you’ll be in our next ad.



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Stamford, Connecticut. A Division of
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BROADCAST INDUSTRY NEWS

CATV's Forward Motion to Continue: Jerrold

Despite new legislation and governing actions which have attempted to put a lid on the progress of CATV, it is by no means capped and hence, CATV's steady forward motion will continue. This is the view of Robert H. Beisswenger, President and Chief Executive Officer of The Jerrold Corporation, who feels that the CATV industry emerged from the problems and controversies of the past year stronger, more mature, and better able to deal with the challenges of the future.

Beisswenger believes that the strong public needs for better television reception and wider programming choice have proven, in balance, to be the more powerful forces.

The Jerrold president made seven predictions: 1. Accelerated modernization, 2. More broadcasters and publishers to own systems, 3. More CATV as a result of color, 4. Faster processing of applications, hence quicker starts of new systems, 5. Stable prices, 6. Better relations with broadcasting interests, 7. No direct satellite-to-home broadcasting in the foreseeable future.

Heavy activity in modernization will occur as a number of systems go from 5 to 12 channel capability, Beisswenger said.

In speaking of better CATV/broadcasting understanding, Beisswenger said, "We see signs of a continuing thaw in the diplomatic freeze between the two industries, with an increasing number of broadcasters enthusiastically entering the CATV venture. Significantly, many broadcasters who view CATV as an opportunity rather than a problem will find new means for fulfilling their public service functions via the cable. With CATV, not merely one channel is available for broadcasts to the community, but rather many additional channels.

"It is no longer a question of whether CATV will spread throughout the nation. It is now simply a question of how quickly the benefits of CATV—the communications industry's new 'unlimited-channel pipeline to the home'—will come to be fully realized."

Color TR 70's in Production

Recorded color pictures of unparalleled sharpness and brilliance are promised to television viewers when the TR-70 system reproduces colorprogram tapes on the air, said C. H. Colledge, Division Vice President and General Manager, RCA Broadcast and Communications Products Division. "The TR-70 will provide the ultimate in recording/playback performance consistent with the 'state of the art' in television tape equipment design. It is the most versatile and sophisticated TV recording system available today."

First shipments of the \$82,500 system were scheduled to leave RCA's Camden, N.J., plant in

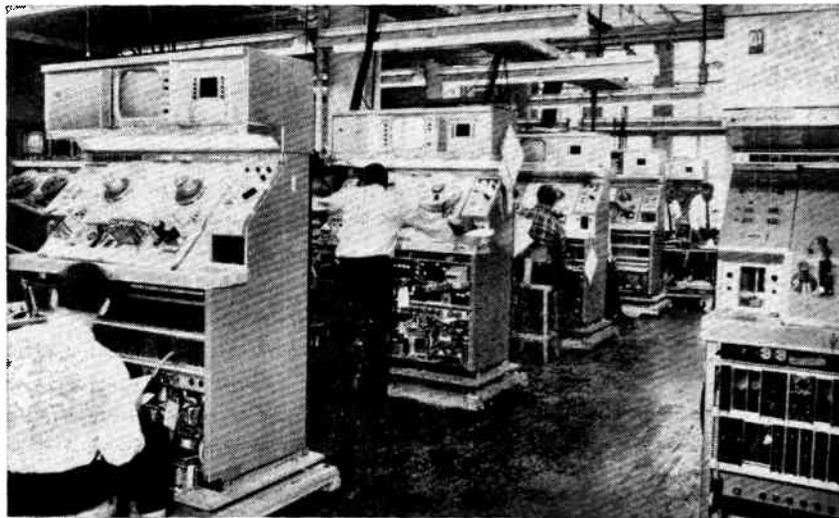
mid-December. The plant's substantial backlog of TR-70 orders from American and foreign broadcasters will keep it busy at least until mid-1967, Mr. Colledge said.

Introduced at the National Association of Broadcasters convention in Chicago last March, the TR-70 is a "high band" color TV recording system completely factory-assembled and ready for use upon installation.

With the high band mode, tapes are recorded at a higher FM frequency than heretofore. This accommodates more detailed picture information and improves the signal-to-noise ratio, resulting in the sharper, more brilliant color pictures.

The TR-70 is said to be capable of producing re-recordings of taped programs into the fourth generation with no significant loss in picture quality.

Instant selection by switch of a choice of three recording standards — low-band monochrome, low-band color, or high-band monochrome/color — makes the TR-70 compatible with most other broadcast-quality TV tape recorders now in use.



Yes, Virginia, there are TR-70 color VTRs. Shown here in final test are TR-70's shipped last December. The \$82,500 "high band" machines undergo 240 hours of testing prior to release. The TR-70 was introduced at last year's NAB show.

What's new in Reelsville, man?

One repeater of an intercity color TV relay system that uses no tubes, no filaments, no high voltages, no mechanical relays.

Microwave Associates' all-solid-state MA-2A relay system owned by WTWO Terre Haute, relays both NBC and ABC programming from Indianapolis to Danville to Reelsville to Farmersburg near Terre Haute through a single feed line antenna system. More than that. The antenna system was already up there, with conventional klystron equipment. But when the second network came aboard, it was add another tube system with antennas, or change over to a solid-state system diplexed into the existing antennas. WTWO opted for the new technology.

Color was one of the big reasons. In the MA-2A, the color-determining characteristics are controlled by highly stabile semiconductor devices and solid-state circuitry. The system is completely free of the drift and degradation that is associated with thermionic components.

Money was another reason. Paralleling the existing system with new tube equipment, new antennas, new feed lines, rigging costs — would have been expensive. More than they cared to spend for equipment some consider obsolete.

Reliability was still one more reason. Solid-state reliability. Sooner or later, tubes mean trouble. The ultimate solution is obvious. The MA-2A has no tubes.

What's new in Reelsville is also new at Rattlesnake Mountain, Washington; North Pole, New York; Bozrah, Connecticut and other famous places. Should it be near you?

Model	Band MHz	*Nominal RF Power	Nominal RCVR Noise Figure		Allocation
			without preamp	with preamp	
MA-2A	1990-2110	2 watts	10 dB	5 dB	TV Auxiliary broadcast STL, remote TV pickup, intercity relay
MA-7A	6875-7125	.5 watt	12 dB	5.5 dB	TV Auxiliary broadcast STL, remote TV pickup, intercity relay

Also available at other frequencies in the 1300 to 2300 MHz band for international allocation requirements.



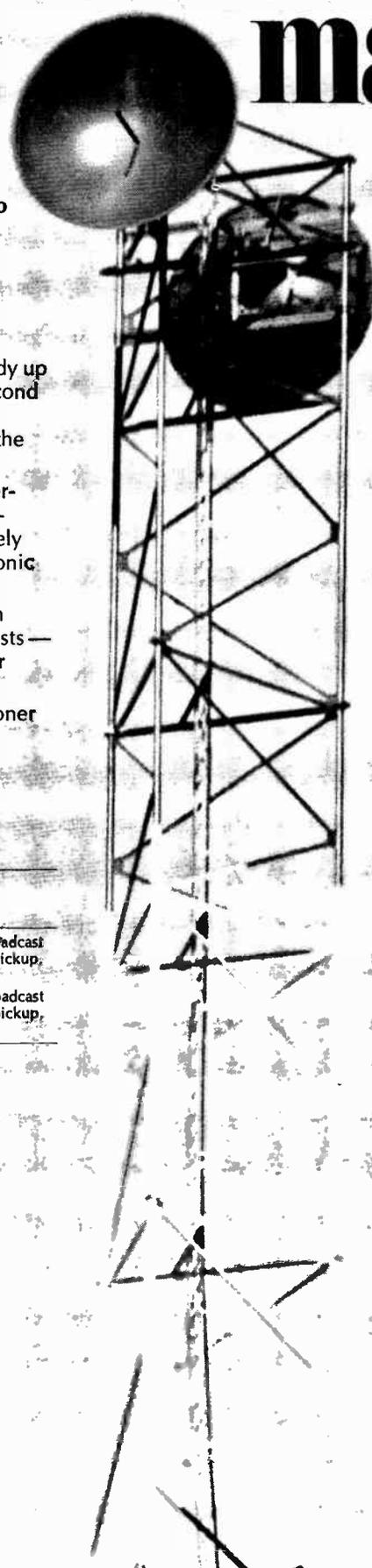
MICROWAVE ASSOCIATES

Burlington, Massachusetts

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Subsidiary: Microwave Associates, Ltd., Luton, Beds, England



Knocked Out By Lightning, KGVO-TV Responds With Lightning

Fire, believed to have been triggered by severe lightning, totally destroyed the KGVO-TV, Missoula, Montana, tower, antenna, transmitter building and all its contents on 6,700 foot TV Mountain, November 21. The fire burned so hot it melted and twisted the tower, antenna and building, destroying equipment (new within the year) valued at \$409,000. The station remained on the air locally, however, transmitting network and local programming to cable company homes in Missoula. Within 2½ days, off-air broadcasting began in the Missoula area with a translator installed on Whitaker Hill. A new transmitter arrived Thanksgiving Day and installation in a new 40 by 80 foot building already constructed on TV Mountain began. Full broadcast operations commenced only ten days later.

KGVO-TV was the first station in the nation to secure approval and place in operation high-power translators in Kalispell and Butte, Montana. Both translators were inoperative until the station resumed broadcast.

"We have broken all records in restoring full service after such a devastating loss," Dale



G. Moore, President, said, "Thanks largely to the splendid cooperation we received from local contractors and RCA engineers." KGVO-TV will establish another 'first' with installation by Emcee Manufacturing, which will permit the station this week to relay its signal to Butte and Kalispell by translator from its TV Mountain site."

Third of TV Homes Can Receive UHF

During the 12 month period ending August 1966, the number of households equipped for uhf went up from 12.2 to 18.5 million. This represents 33.8 percent of households equipped with TV. (93.4 percent of all U.S. households have TV sets.) The survey was done by the U.S. Bureau of the Census for the Advertising Research Foundation.

Color Outsell B&W

During the week ending November 25, sales of color TV sets to dealers exceeded black-and-white sets for the first time in history according to the Electronics Industry Association.

RCA reported it would sell more color receivers than black-and-white sets in 1966. There is a reservoir of customers, RCA reports, as color set buyers wait for delivery of a specific model rather than to spend money for something less appealing.

EIA predicted that when the final count was in, total TV sets sales to dealers would exceed 12 million sets—at new high. Sales in 1965 were 10.8 million sets. Color in 1966 will account for 4.5 million units.

EIA figures market penetration of color by 1966 is 15 percent.

FM Radio Sales Soar

Sales of fm radios will soar to new highs in 1967, according to William B. Keepin, manager of the Norelco radio department of North American Philips Company, Inc. He predicts sales of close to 12 million fm sets (U.S.-made and imports) during the coming year—a 20 percent gain over 1966 estimated sales of nearly 10 million units.

Currently this country's radio-listening public owns slightly

less than 34 million fm receivers. Within a few years, this number is expected to double, Mr. Keepin says.

As of October, the year-to-date rise of U.S.-made fm radio sales to dealers was up 31.4 percent. The Electronic Industries Association put its nine-month sales figure at 2,966,388 units, compared to 2,258,013 units for the same period a year earlier.

Keepin believes the new 50 percent programming rule will spur sales of radios and other sets capable of receiving frequency modulation.

"There now are more than 1,500 fm stations, representing more than 27 percent of all radio stations," Mr. Keepin observes.

Highmark for Network TV Billings

October 1966 billings on network television surpassed all previous monthly totals, the Television Bureau of Advertising reports.

Net time and program billings on the three networks in October totaled \$155,402,900, a gain of 15.2 percent over the October 1965 total of \$134,895,700 (the previous high).

Daytime was up 21.6 percent over last year; nighttime 11.6 percent. Network billings for the first 10 months of 1966 increased from \$993,721,700 in 1965 to \$1,120,156,000, up 12.7 percent.

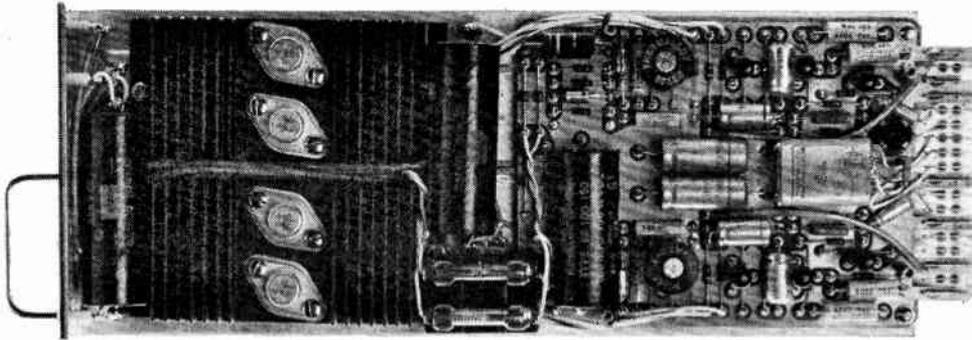
Spot TV Up

National and regional spot television advertisers increased their third-quarter 1966 investments 7.3 percent over the like quarter of a year ago, the Television Bureau of Advertising reports.

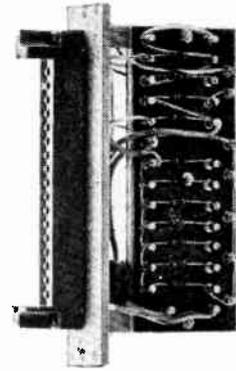
Agencies Buy ARB's Radio Coverage/67

Only weeks after the initial announcement of the full national radio coverage study planned for 1967, twenty advertising agencies agreed to buy. The list includes fourteen of the top twenty-five agencies ranked according to 1966 combined broadcast billing. Seven of these are among the top 10 broadcast billing agencies.

Dr. Peter Langhoff, ARB president, reports that this is the strongest advance evidence of industry support ever accorded a coverage study. It has been six years since county-by-county



AA-601 Plug-in Audio Distribution Amplifier Module (with cover removed) — self contained, solid state design. Each module provides up to 6 outputs (60 in a 5¼" frame) at +24 dbm, 600 ohms balanced.



Connector Assembly mounted on rear of rack frame determines input/output configuration and provides all connection terminals needed.

The Audio Equivalent Of A Video Distribution Amplifier—Avoids Cross-Talk — Provides High Quality Performance and On-Air Reliability

AUDIO DA

- HIGH ISOLATION BETWEEN OUTPUTS AVOIDS CROSSTALK — 60 db or better across entire audio band width, balanced or unbalanced.
- ADVANCED, HIGH-RELIABILITY. SOLID-STATE CIRCUITRY — minimizes possibility of failures that interrupt or degrade audio.
- RESPONSE ± 0.25 db 30-15,000 CYCLES — less than 0.5% harmonic distortion.
- INPUT MATCHING OR BRIDGING, BALANCED OR UNBALANCED, 600 or 150 OHMS.
- WIDE VARIETY OF OUTPUT NUMBER/IMPEDANCE/LEVEL CONFIGURATIONS AVAILABLE.

Write for literature on this and other WARD Broadcasting Equipment



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Circle 7 on Reader Service Card



Take a Piggyback Ride



LT-10, 3-watt transistor-amplifier mounts piggyback on our SCA Multiplex transistor Receiver, TR-66

Since the LT-10 was introduced earlier this year, background music operators all over the country have been discovering the convenience of the "piggyback" amplifier. It's most convenient for smaller installations where just a few speakers are used. As the picture shows, it just plugs in—no wiring necessary.

The TR-66 has many special features and conveniences. Modular construction permits easy replacement of power supply, main channel or sub-channel circuitry. Servicemen always appreciate the plug-in transistors and straight-line

design with convenient test points. No other manufacturer can guarantee sensitivity of 2 uv/50db, or crosstalk of -55db or better.

McMartin is the leading producer of SCA Multiplex receivers, and the workmanship is guaranteed *forever*. We make this bold warranty because 20% of our people are in final testing of your equipment.

Order your "piggyback" LT-10 amplifier and the TR-66 SCA receiver today, or write for literature.

McMartin

Marketing Manager, Broadcast
 McMartin Industries, Inc.
 605 North 13th Street
 Omaha, Nebraska 68102

Circle 8 on Reader Service Card

Best reception with the TR-66 SCA receiver is with the A-72-SF exact frequency antenna



The A-72-SF antenna is the only one recommended for use with McMartin SCA receivers. Twenty per cent more gain is obtainable because of the exact frequency feature—not just an “almost frequency.” The added gain and sharp directional characteristics also help overcome multipath.

We are able to practically eliminate co-channel interference because of an exceptional front-to-back ratio. Linear flat response is obtained across each FM frequency. All antennas are gamma-matched and coax connectors are supplied.

In addition to the technical superiority, you'll appreciate the easy installation. With special snap-out lock construction you can install it in three minutes.

Order your exact frequency A-72-SF antenna today—available with either 3 or 5 elements—or write for literature.

McMartin

Marketing Manager, Broadcast
McMartin Industries, Inc.
605 North 13th Street
Omaha, Nebraska 68102

Circle 9 on Reader Service Card

February, 1967 — BM/E

radio circulation estimates have been provided the industry. The study will be based on the personal radio diary method which provides written evidence of listening when and where it occurs.

Features of ARB's Radio Coverage/67 include audience data reported by six time breaks, age/sex breakouts based on stratified sampling and weighting to insure that each audience segment is represented in its proper perspective, county shares of total weekly hours listened to a station, station shares of total weekly hours listened in a county, and, finally, separate reporting for a-m and fm stations with combined a-m/fm totals for stations that simulcast.

Radio coverage data will be collected between April 13 and May 10. Results are scheduled for client distribution in early fall 1967.

NAB President Says Industry Self Regulating

Vincent T. Wasilewski, NAB president, told a Senate subcommittee in December that NAB's Radio and Television Codes reflect the industry's concern for “serving the public good.” “While progress does not always come easy,” he said, “. . . we are continuing to prove that self-regulation can and does work.”

Wasilewski testified before the Senate Judiciary Subcommittee on Anti-Trust and Monopoly which is inquiring into allegations of preferential treatment for large TV advertisers.

He said the time limitations in the Codes on advertising stem from the conviction of broadcasters that “there should be a reasonable balance of program and commercial material.” But they also recognize, he said, that the amount of time allocated to commercials “is far from being the sole or even the most important factor” in achieving that balance or in measuring a station's over-all effectiveness in its service to the community.

In television in particular, he said, “the real problem seems to be not in the fact of over-commercialization but in the appearance or impression of over-commercialization. This is a result of the variety of nonprogram elements which appear within and around programs—the so-called ‘clutter’ problem.”

Concern in this area, he said, led to a 1964 TV Code amendment to define multiple product announcements more precisely as either “integrated” or “piggyback” announcements. The Code restricts consecutive announcements to not more than three within a program.

“To further control the ‘clutter’ problem,” he said, “we have attempted to cut down on the amount of nonprogram elements in prime time by counting ‘below the line’ credits . . . those for physical and technical services . . . as part of commercial time. Additionally, this year the definition of commercial matter in nonprime time was revised to include ‘billboards’ and promotional announcements.”

Wasilewski said that there is a need to know more about how viewers think about television and commercials and announcements and interruptions.

Carrier Lost 56 Minutes

On December 29, 1966, an Consolidated Edison underground feeder cable failed in the Pelham Bay Park area in the Bronx, New York City killing service to WCBS-AM (880 kHz) located to the east on City Island. The carrier was interrupted at 11:27 A.M. during the Art Linkletter show, and was not restored until 12:23 P.M. Carol Reed's voice was the first transmitted by WCBS-AM after the 56-min interruption. Ralph Green, Operations Director for WCBS, indicated in a telephone interview that despite the fact that the station generator worked perfectly on Christmas day when it was tested, a broken lead on the generator speed control prevented its immediate use when power from the mains failed. Emergency power was used, however, to put WCBS-AM back on the air, and remained in use until approximately 1:45 P.M. when power from the mains was restored.

Travelling?

Commercial Travellers Club members enjoy the lowest possible rates at hotels and motels conveniently located from coast to coast. Over 743 cities are served with several choices in major cities, making it the most extensive offering ever made to firms with traveling executives and sales forces. In-

cluded with membership is a 234-page directory, listing special rates for all types of accommodations and guaranteeing them even for peak seasons in resort areas. It also lists facilities to be found at each participating unit, with city maps graphically showing locations in relation to major highways. Membership is \$10.00; details from Commercial Travellers Club, Federal Square Bldg., Grand Rapids, Mich.

New Communications Standards

By First Report and Order, Docket 13847, the FCC adopted technical standards designed for split-channel operation (25 kHz spacing) in the 450-470 MHz band for public safety, industrial and land transportation services, and Class A citizens band stations. Effective dates for the new standards are: all stations employing frequency modulation must reduce their deviation to 5 kHz by June 1, 1967. All stations unauthorized on or after Nov. 1, 1967 must meet new bandwidth (20 kHz), tolerance (0.0005%) for mobile stations low-pass audio filter, and deviation standards. Stations authorized before Nov. 1, 1967, will be required to meet new standards by Nov. 1, 1971.

Urban Communications In The Year 2000

Comprehensive studies by urban planners will be required if the city of the year 2000 is to utilize effectively mail delivery by satellite, video telephone systems, electronic control of air pollution, and other technological advances, according to Dr. Leonard S. Sheingold, v.p., Advanced Technology, Sylvania Electronic Systems. He said blueprints now being drafted for new cities should incorporate information systems and all-electronic homes and offices which take advantage of the satellite, data, and related communications systems presently available to government and industry.

"There is no doubt in my mind that the U.S. is moving toward tremendous expansion in population, wealth, resources, imagination, and sophistication," the Sylvania scientist

noted. "Of all the possible growth areas we can visualize today, the one with the greatest promise is that of information systems — systems which process, switch, transmit, and display voice, video, and data. Behind this promise, of course, is the question of education and the resultant growth in the demand for accelerated transfer of information. By the year 2000, telephone facilities should be conveying tremendous amounts of diversified information to and from the home—utility meter data for billing purposes, automated supermarket orders placed through push-button dial codes, banking and credit information, and similar services."

"Most of us will live to witness a communications satellite linked to a ground facsimile system transmitting letters and newspapers to virtually any location on earth within a matter of minutes," he stated. "Similarly, we shall see electronic systems used in urban control centers to measure and regulate air pollution levels."

NAB Rules For Private Ownership Of Satellites

NAB General Counsel Douglas A. Anello said in comments filed with the FCC that Congress, in designating the Communications Satellite Corporation (COMSAT) as the U.S. agent for a global satellite communications system, did not preclude establishing other systems in the national interest.

"Nothing in that Act (Satellite Act of 1962) indicated that all satellites had to be a part of the global system or that all had to be used for common carrier purposes," Anello said.

Anello said NAB is taking no position at this time on numerous questions raised in prior comments; including those involved in the Ford Foundation proposal to finance an educational television network from expected savings in a satellite system it proposed.

Noting that the Presidential Carnegie Commission is now conducting an over-all study on possible ways of financing ETV, Anello said until its findings are

made public "it would be premature to intermingle the question of possible savings that might result from the use of satellites for domestic communications with the broader social purpose involved in educational television."

Broadcast & Cablecast Complementary Media?

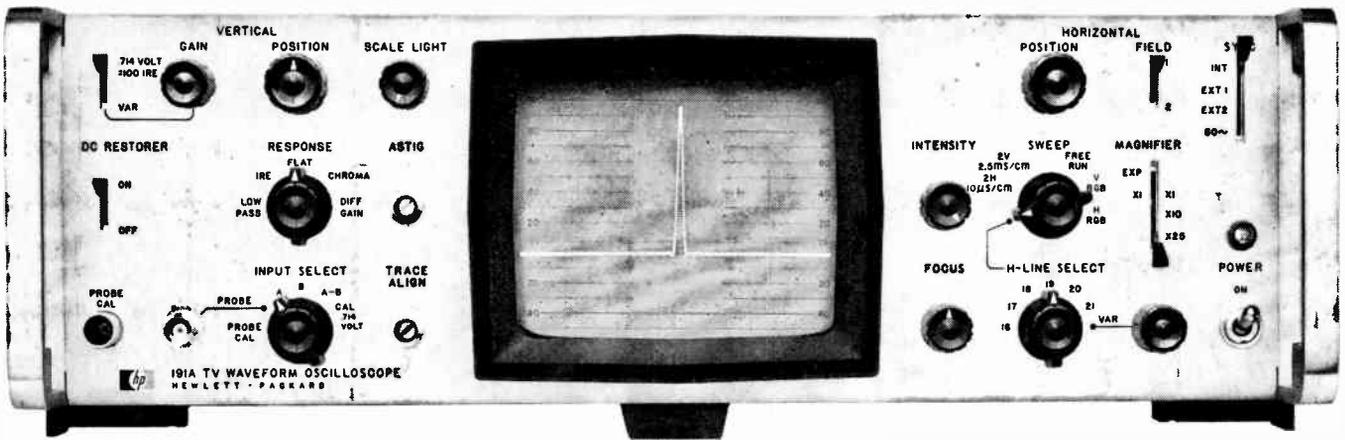
CATV and the U.S. system of broadcasting are actually complementary media, each mutually beneficial to the other, claims Robert H. Beisswenger, President of The Jerrold Cor-



Beisswenger at U. of Pa.

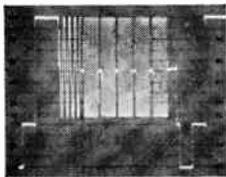
poration. Mr. Beisswenger pointed out at a recent Colloquium of the University of Pennsylvania's Annenberg School of Communications that during prime time approximately 88 percent of the viewers in the New York metropolitan area watch the three networks, while 12 percent are split between the four independent stations. Similar statistics exist for Los Angeles, the nation's only other seven-station market. He said it would probably always be true that no matter how many additional program choices were made available by CATV, *the majority of viewers would still watch those programs geared to the mass interest.* Due to the limit of one channel outlet per station, plus the limited number of broadcast hours in each day, local stations have found it necessary to direct themselves to serving this mass interest. By making additional channels available, *CATV opens wide the door to local origination and special programming never before technically nor economically feasible for broadcasters.*

All-Solid-State Scope Gives 1% Measurement Accuracy!

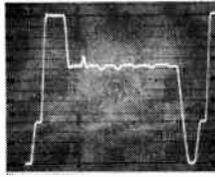


Sine-squared T/2 pulse in Flat Response position magnified X25.

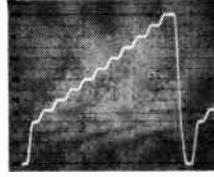
IMPROVE BROADCAST QUALITY—MAKE ACCURATE, RELIABLE VITS AND COLOR SETUP MEASUREMENTS



Multiburst signal accurately displayed using Flat Response Position of vertical amplifier, gives frequency-gain characteristics.



Multiburst signal shown using Low Pass Response position allows exact determination of average value of video signal.



Stairstep levels shown in Low Pass Response position. Deviation from designated values indicates compression.

Continuous monitoring of your broadcast operation with 1% measurement accuracy; easier, faster, more precise setup of cameras and recorders; and high speed trouble-shooting are yours with the all-solid-state hp Model 191A TV Waveform Oscilloscope! Now you can update your system for color. This scope is designed to meet today's requirements and tomorrow's demands! It now is the standard of interstate transmissions—and will be your standard to measure incoming video signals.

CHECK THESE FEATURES:

High tolerance filter design plus the parallax-free internal graticule CRT combine to give you 1% measurement accuracy. The 191A has a vertical amplifier with an extremely wide bandwidth to allow exact response shaping with five filters including Flat, Low Pass, IRE, Chrominance, and Differential Gain—without introducing any phase distortion into your signal. CRT is large 7 x 10 cm with a 20 kv post accelerator drive to provide bright, easy-to-see traces, including low duty cycle T/2 sine-squared signals—even in brightly-lighted control rooms.

You get the reliability of all-solid-state construction. All components, except the CRT, are solid-state, to allow low power consumption (only 70 watts) and convection cooling. *No ventilating fan is needed!* Solid-state components also means the 191A is rugged and can be used either in control rooms or for remote broadcasts. Model 191A maintains 1% measurement accuracy from +15° to +35°C (59°F to 95°F)—and still gives 3% accuracy at the ambient temperature extremes of -20°C and +65°C (-4°F to +149°F) for remote broadcasting accuracy.

Positive, digital Field-Select is insensitive to noise, and syncs to the right field every time without adjustment because of computer-type circuitry. You *know* which field you're examining! Line-Select system is discrete for lines 16 through 21 for quick, easy viewing of VITS. Variable-Select lets you manually select *any* line. Five sweep modes allow optimum examination of the entire composite TV signal, individual lines, video setup and color setup. Free Run and WRGB sweep modes facilitate signal level measurements and color setup.

You can switch rapidly from normal operating mode to check calibrated gain or to check VITS without resetting scope. With the 10' accessory probe connected to the front of the scope you get high-speed accurate trouble-shooting without interfering with the feed-through broadcast signals!

To see how the hp 191A TV Waveform Oscilloscope can improve your broadcast quality and to get full specifications, call your nearest hp field engineer. Or, write to Hewlett-Packard, Palo Alto, California 94304; Telephone (415) 326-7000; Europe: 54 Route des Acacias, Geneva. Price: hp Model 191A Oscilloscope, \$1295.00; hp Model 10009A Probe, \$50.00. This oscilloscope is also available as hp Model 193A for telco interstate television signal relayers. Price: hp Model 193A, \$1350.00.

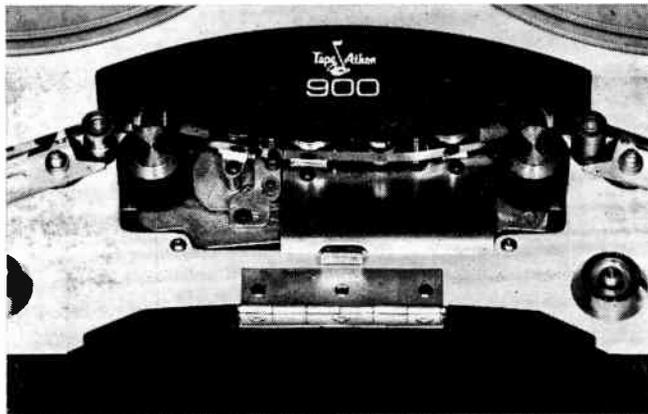
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Business of Broadcasting

Cox Broadcasting to Acquire TV Film Producer-Distributor. Directors of Cox Broadcasting Corporation, a leading group broadcaster, have approved the purchase of Walter Schwimmer, Inc., producer and distributor of network and syndicated television programs—the 13-year-old Championship Bowling show, World Series of Golf, Cisco Kid, National Golf Day, Let's Go to the Races and a sports film package on football, golf, auto racing, bowling, billiards, bridge and hunting and fishing.

Price was \$2,750,000 with payment of additional sums contingent upon the earnings of the programs over the next five years.

Schwimmer, located in Chicago, will be operated as a subsidiary of Cox; Walter Schwimmer will remain as chief executive officer.

Daytona Stock Car Race on 300. International Speedway Network will broadcast the 9th Annual NASCAR Daytona 500 Grand National Championship Stock Car race on February 26 at Daytona International Speedway in Florida. More than 300 stations in the U.S. and the worldwide network of Armed Forces Radio Service have arranged to broadcast the race.

Hubbard Broadcasting's Sea Skiff Adds Transistor Radar. Hubbard Broadcasting Corporation's 36-foot Sea Skiff, which plys offshore Florida waters to cover fast-breaking news events at sea, has become the first craft to install RCA's new 3.2 CM Transistor Radar. The new radar unit, providing five viewing ranges from one-half to 32 miles, permits the boat to take to sea in virtually any weather, search out its news source and flash bulletins or remote broadcasts to WGTO, Hubbard's 50,000-watt radio station at Cypress Gardens, Fla.

LIN Broadcasting Buys Miss Teenage America. Miss Teenage America Pageant was purchased recently by LIN Broadcasting Corporation of Nashville, Tennessee. The transaction involved

the purchase of the stock and all assets of the owning corporation, including television rights for the annually televised (CBS) Miss Teenage America Pageant.

LIN Broadcasting now operates five radio stations, one TV station, 10 CATV systems and owns Medallion Picture Corporation, producer and distributor of films for theatrical and TV uses.

Nortronics Buys Lab. Nortronics Company, Inc., manufacturer of magnetic tape recording heads, has announced purchase of Minnetech Laboratories, Inc., Minneapolis manufacturer of automation equipment and high-precision industrial measuring devices.

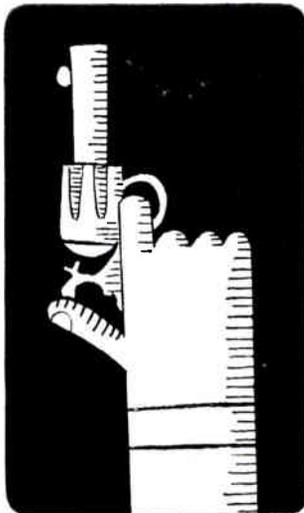
McMartin Changes Sales Force. McMartin Industries, Inc. of Omaha, Nebraska has appointed the Clark R. Gibb Company, 1311 West 25th Street, Minneapolis, Minnesota to cover Minnesota, North Dakota, South Dakota and Western Wisconsin, and Electro-Tec Marketers, Ltd., 1624 West Third Avenue, Vancouver, B.C., Canada, to cover British Columbia, Alberta, Saskatchewan and Manitoba. Gates Radio of Canada will continue serving the Eastern Provinces.

Granger Associates to Buy Bauer Electronics. Granger Associates shareholders in December agreed to purchase Bauer Electronics Corp. of San Carlos for an undisclosed cash sum. Under terms of the agreement, Bauer Electronics will operate as a wholly-owned subsidiary of G.A. beginning January 1, 1967. Granger Associates designs and manufactures antennas, high-frequency amplifiers, ionosphere sounders, and equipment for aviation communications, video data display, and microwave.

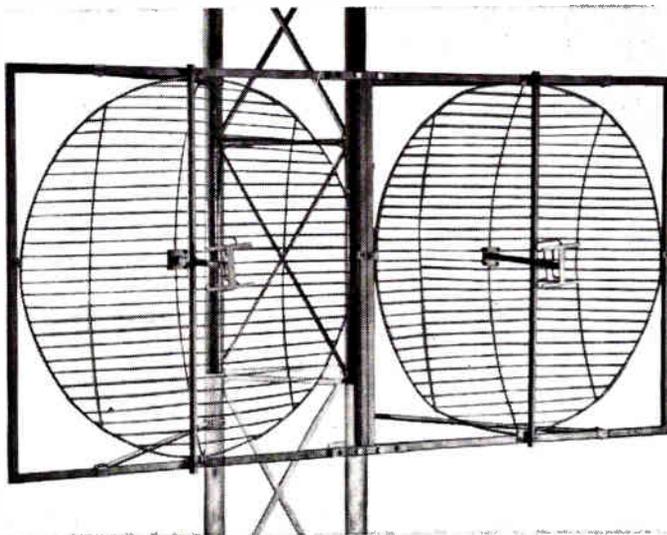
More Marconi in USA. Marconi Instruments has begun to produce in the U.S. its noise loading test set which is an industry standard for measuring intermodulation and cross-talk in multichannel systems.

An fm deviation meter is another unit soon to be available from local manufacture. Address is Marconi Instruments Division, The English Electric Corporation, 111 Cedar Lane, Englewood, New Jersey, 07631.

Microflect Consolidates. Microflect Co., Inc. has consolidated



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±1db, 20 to 20,000 cycles at 100MW

±2db, 20 to 35,000 cycles at 100MW

Harmonic Distortion:

Less than 1%, 20 to 20,000 cycles at 100MW

Less than 2%, 20 to 20,000 cycles at 200MW

Input:

50 to 150 ohms balanced (mu metal shielded, permalloy core transformer)

2,000 or 100,000 ohms unbalanced

Gain:

70db, 50 ohm input, 8 ohm load

65db, 2,000 ohm input, 8 ohm load

Output: 500 and 8 ohms

(grain oriented transformer)

Circuit: 7 transistors, 1 thermistor

Controls: Locking volume control

Connections: Barrier strip

Power Supply: 9 volts DC, 100 MA
(accessory power supply available —
Round Hill Model PS-200)

Construction: Brown enameled
steel case

Size: 9"L x 2 3/4"W x 3 1/4"H

Weight: 28 ounces

Price: **\$34⁵⁰** Including complete Technical Data and Schematic
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An all-transistor general purpose power supply, the Round Hill Model PS-200 is particularly suited for use in applications requiring a stable, well-filtered DC source. It employs Zener referenced voltage regulation, and delivers 9 volts DC at loads up to 200 MA with complete dead short protection. A locking screwdriver-adjusted programming potentiometer permits the output voltage to be adjusted over a one-volt range.

Input Voltage: 105-125 volts AC,
60 cycles, 5 watts

Regulation: Line + load 5 MV

Ripple: Under full load 10 MV, peak to peak

Output Voltage: 9 volts DC

(adjustable over 1 volt)

Maximum Load Current: 200 MA

Controls: Locking programming
control

Connections: Barrier strip

Construction: Brown enameled
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Size: 9"L x 2 3/4"W x 3 1/4"H

Weight: 44 ounces

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its engineering and business offices in a new 2,000 ft² building in Salem, Oregon. Engineering personnel and offices were moved from Butte, Mont.

Memorex Acquisition. "Substantial equity" in the Disc Pack Corp., has been acquired by Memorex Corp., Santa Clara, Cal. The Hawthorne, Cal., based company is presently engaged in design and development of precision memory discs. Memorex President Laurence L. Spitters said that "if this program is successful, we anticipate completing the acquisition of DPC later in 1966."

Five Record Years for RCA. RCA achieves largest single-year sales and profit increases in 1966 for the fifth consecutive year, Engstrom and Sarnoff report. Year-end statement reports sales surpassing \$2.5 billion and profits of more than \$130 million; earnings per common share to approximate \$2.20. Color TV manufacturing and broadcasting were cited as largest contributors to overall progress. NBC sales exceeded \$500 million. Broadcast equipment sales advanced by 35 percent.

Visual to Handle Solari Clocks. Visual Electronics has been appointed U.S. broadcast industry distributor for Solari direct reading clocks and automatic Teleindicator display units used by ABC-TV and affiliates as well as other TV stations to post election returns, weather data and scoring devices for bowling, football, baseball and quiz shows.

Credit Card Radio Sales. KAGT Anacortes, Wash. charges radio time to customers through an arrangement with a Seattle bank. Holders of the banks credit cards simply charge their advertising by presenting their cards.

Sony Franchises F&B/CECO. Sony Corp. of America has franchised F&B/CECO to sell and rent their Series 200 VTRS. Daily or long-term rentals are available to advertising agencies, talent agencies, film producers, etc.

Midtex Acquires MHI. Midtex, Inc., Minneapolis, has acquired MHI (MacAllister/Hogan, Inc.), a Minneapolis based manufacturer of magnetic tape heads.

New Video Measuring Equipment Firm. The formation of a company specializing in the development of advanced measuring devices and techniques has been announced by D.J. Dudley, president of the new firm. Known as Videometrics, Inc., the Brightwaters, N.Y. company's first product is a color pulse generator.

Business of CATV

Tucson Tussle Settled. The five-way battle for a CATV license from the City of Tucson, Arizona, was settled at the turn of the year with Southwest Cablevision, Inc., a division of Jack Kent Cooke's American Cablevision Co., the big winner. The prize is substantial — a potential of 76,000 viewers in the 134th market area. One loser is Southern Arizona Cable Co. a joint venture of three Tucson TV stations — KOLD, KGUN, and KVUA.

Receiving a 6-0 vote in being awarded the license, President Cooke viewed the action as a vote of confidence and said, "We will build the finest CATV system anywhere in America."

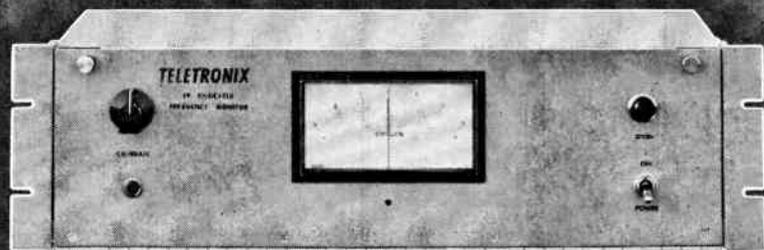
Southwest Cablevision promised 20 television and 20 fm channels with closed circuit telecasts of home games of the Los Angeles Lakers (basketball), Los Angeles Kings (hockey), and Los Angeles Zorros (soccer). The proposal also offered to cablecast news and weather on one channel and local programs from the University of Arizona's Journalism department on another channel.

The program diversity is believed to be greater than that offered by competitors. Further, Southwest Cablevision offered five percent of the gross. Several of the competing offers were for three percent. Microwave repeaters by American Television Relay, Inc. will be used to bring in Los Angeles TV stations. A converter will be supplied to each subscriber so that he can select any of the 20 channels. The monthly subscriber rate will be \$4.95. There is no installation fee, however, a deposit will be required for the converter.

\$1 per Subscriber License Fee Demanded. The Washington Borough Council outside Easton, Pa.

(Continued on page 66)

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INTERPRETING THE **FCC** RULES & REGULATIONS

Recent Changes in Station ID Rules

LAST MONTH'S issue featured a review of the Commission's increasing proclivity to issue fines and forfeitures for licensee violations in all areas of broadcasting. Interestingly, a great many of the fines assessed were issued due to violation of the Station Identification Rules. The requirements of the id rules are found in Sections 73.117(AM), 73.287(FM) and 73.652(TV).

ID Rules In General

The rules require the licensee to identify the station by announcing the call letters and location (city of license). For a-m and fm stations, these id's must be given at the beginning and ending of each time period of operation and as follows: (1) within two minutes of the hour *and either* the half hour or quarter and three-quarter hours; (2) in the case of a single consecutive speech, play, religious service, symphony concert, or operatic production, at the first interruption of the entertainment continuity and at the conclusion of the program; or (3) in the case of variety shows, athletic contests, and similar programs of longer duration than 30 minutes, within five minutes of the time given above.

For TV, the id's must be given *both visually and orally* at the beginning and ending of each time period of operation, *and either visually or orally* (1) during the operation on the hour or (2) in the case of a single consecutive speech, play, religious service, symphony, concert, or operatic production, at the first interruption of the entertainment continuity and at the conclusion of the program.

The importance of these rules cannot be over-emphasized. They were promulgated at the very beginning of the broadcast regulation, first by the Department of Commerce and later by the Commission. *The underlying reason for the requirements of the rules has been to assist the regulatory agency in its monitoring.*

New Rules Concerning IDs for Translator Stations

On December 1, 1966, the Commission released a Memorandum Opinion and Order (RM-440, FCC 66-1074, 91767) amending Sections 74.750 (c) (7) and 74.783 (a) of the rules governing television broadcast translator stations.

This section, providing broad interpretation of FCC rules and policies, does not substitute for competent legal counsel. Legal advice on any given problem is predicated on the particular facts of each case. Therefore, when specific problems arise, you would be well advised to consult your own legal counsel.

The Commission recognized that station identification for TV translators is useful and often necessary; however, it found that it could dispense with the identification requirement for translators with power of 1 watt or less. In other words, the order eliminated the need for television translator stations of powers of 1 watt or less to identify themselves; nevertheless, it retained this requirement for those translators with powers exceeding 1 watt.

The licensees that filed comments in the proceeding suggested that the Commission could further relax the id rules for translator stations in order to include powers higher than 1 watt. However, the Commission indicated that its principal concern was with potential interference to other radio stations. It is believed that the problem of identifying the source of signals by the Commission is compounded in the absence of a call sign or some other quickly recognizable method of relating the signals observed to a particular transmitter in a specific location. In the case of the very low-powered vhf translators the Commission was able to eliminate the requirements for station identification because the range of such signals is very limited, thereby permitting the use of simple radio-location methods. In the case of high-powered translators, their signals extend over a much larger area, and simple radio location methods are not feasible.

As is evident, the Commission has recognized the practical necessity of allowing a relaxation of its id rules insofar as translator stations are concerned; however, it is also evident that the Commission is still concerned primarily with the original reasons for the establishment of the id rules—to be able to monitor and establish the identity of a station over the air.

New Rules for TV Auxiliary Broadcast Stations

On October 15, 1965, the Commission issued a Notice of Proposed Rulemaking (FCC 65-930) which looked towards modification of Section 74.682 of the Rules. This section sets forth station identification requirements, television auxiliary broadcast stations (TV pickup stations, television studio-transmitter link stations, and television intercity relay stations). On December 1, 1966, the Commission issued a Report and Order (Docket No. 16,240, FCC 66-1101) modifying Section 74.682 of the Rules.

The present rules require each television auxiliary station to identify itself by transmitting its call signals at the beginning and end of each



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period of operation. During operation, the rules required that the call sign of the station or the associated television station must be transmitted on the hour; however, such identification transmissions need not interrupt program continuity. When the stations were operated in an integrated relay system, the station at the point of origination could transmit the call signs of all the stations in the system. The transmissions of the call sign would normally employ the type of emission for which the station is authorized, either visual or aural. When the transmitter was used for visual transmission only, the call sign could be transmitted in International Morse Code by keying the carrier or a modulating signal impressed on the carrier.

The modified rules, for TV auxiliary stations, as adopted on December 1, 1966, read as follows:

74.682 Station identification.

(a) Each television broadcast auxiliary station shall transmit station identification at the beginning and end of each period of operation and at intervals of no more than one hour during operation, by one of the following means:

(1) Transmission of its own call sign by visual or aural means or by automatic transmission in International Morse telegraphy.

(2) Visual or aural transmission of the call sign of the TV broadcast station with which it is licensed as an auxiliary.

(3) Visual or aural transmission of the call sign of the TV broadcast station for whose signal it is relaying to its own associated TV station.

(b) Identification transmissions during operation need not be made when to make such transmission would interrupt a single consecutive speech, play, religious service, symphony concert, or any type of production. In such cases, the identification transmission shall be made at the first interruption of the entertainment continuity and at the conclusion thereof.

(c) During occasions when a television pickup station is being used to deliver program material for network distribution it may transmit the network identification in lieu of its own or associated TV station call sign during the actual program pickup. However, if it is providing the network feed through its own associated TV broadcast station it shall perform the station identification required by paragraph (a) of this section at the beginning and end of each period of operation.

(d) A period of operation is defined as a single uninterrupted transmission or a series of intermittent transmissions from a single location or continuous or intermittent transmission from a television pickup station covering a single event from various locations, within a single broadcast day.

(e) Regardless of the method used for station identification it shall be performed in a manner conducive to prompt association of the signal source with the responsible licensee. In exercising the discretion provided by this rule, licensees are expected to act in a responsible manner to assure that result.

The basic purpose of call signs is to provide identification. For years, stations have used

their call signs, both at required id times and at other times, for promotional purposes to keep the public aware of their identity. In this connection, identification of auxiliary installations is of little or no concern; however, this is not the only purpose of station identification. The transmission of station identification by call sign and location is also intended to assist enforcement agencies in this country and abroad in rapid identification of signal sources and to indicate that the signals originate at a legally licensed station. The transmission of station identification may be compared to the display of license plates on a motor vehicle. Since it is usually impractical for a radio station to display its call sign at all times, the Commission's Rules and international agreements require the transmission of station id's at reasonably frequent intervals. If this were not required, it would be next to impossible for monitoring stations to recognize licensed stations and to quickly identify stations guilty of infractions of the Rules. Additionally, the proper use of call signs also protects stations against wrongful accusations which could arise as a result of similarities in their transmission with those of the real wrong-doer. When signals are observed and no station identification is transmitted, there is a strong suspicion that the signals originate from an unlicensed transmitter.

It was not the purpose of this recent modification to eliminate the requirement for station identification. Its purpose was to modify the requirements so as to meet practical operating problems without the sacrifice of information necessary for the proper identification of stations.

TV Auxiliary Station ID Problem Analyzed

In promulgating the modified rule, the Commission realized that it had to establish a middle ground between adherence to its basic philosophy of availability from the basic purposes of station id's and the practical operating problems inherent in the establishment of too strict a rule. The television auxiliary services involve transmissions under a variety of circumstances. Some equipment carries both visual and aural transmissions and other equipment carries only visual information. Some transmitters are attended and others operate unattended. Therefore, it becomes difficult if not impossible to prescribe specific methods of station identification that will embrace all possible situations. The Commission's principal concern is to assure rapid identification of observed signals and to prohibit the transmission of unidentified signals.

For example, the transmission of station identification is most difficult at unattended stations. In the TV auxiliary services, these are either TV intercity relay stations or intermediate stations in a multihop television STL circuit. The Rules do not permit unattended operation of TV pickup stations or the originating station in a television STL circuit. The Commission pointed out that devices for the automatic transmission of call signs at unattended TV auxiliary stations are available; however, these devices rely upon a timing mechanism which ac-

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tuates the call sign transmission at regular pre-determined intervals. Unless the break in program continuity for station identification occurs at precisely these intervals interruption to the program itself may occur. Furthermore, unless some means are provided to disconnect the intercity relay or STL circuit from the transmitter of the TV station, using the system during such automatic transmissions, the call signs of the TV auxiliary stations may be broadcast by the TV station. This is certainly undesirable.

In order to meet the Commission's enforcement requirements, *transmission of the call letters and location of the parent TV station over the TV auxiliary station would provide the necessary information.* This may be done as a part of the regular station identification transmission of the parent station, thereby solving the timing problem and avoiding transmission of auxiliary station call signs by the broadcast station. *However, this is not practical in the case of an intercity relay system which delivers programs obtained from another TV station, or from network lines to the parent TV station.* Since broadcast stations must obtain permission from the originating station before rebroadcasting their programs, an indirect form of station identification is possible if the intercity relay system carries the call sign of the originating station or an appropriate network identification. Although this may complicate rapid station identification, the Commission believes it to be an acceptable method of station identification in those special cases.

The transmission of station identification by *attended* TV auxiliary stations poses no timing problem. However, there is the problem of retransmission of the TV auxiliary call sign by the parent TV station. The present rule requires transmission of the TV auxiliary call sign at the beginning and end of each period of operation, and it permits use of the TV station call sign during the remainder of the period of operation, which is easily accomplished at television STL stations and at TV pickup stations when used in conjunction with the parent TV station. On those occasions when TV pickup stations are used in conjunction with other TV stations or for a network feed, other methods of station identification as outlined above are permitted.

The question as to the type of emission to be used for station identification is fairly simple. For monitoring purposes, transmission by aural means or in International Morse telegraphy is best, although aural or visual identification is allowable and may be preferable. Use of visual or aural identification is comparatively simple over STL circuits and TV pickups when actively engaged in covering a remote broadcast. However, TV pickup equipment may be dispatched to the scene of a remote broadcast in advance of an actual broadcast for the purpose of establishing the circuit while cameras and sound equipment are not sent out until the time of the actual broadcast. In such cases, present rules permit the use of International Morse telegraphy transmitted automatically. *The use of telegraphy is permissive, not mandatory,* and licensees may elect to provide for aural, or visual identification on these occasions.

PRESS LOG

Recent comments in the press on programming

Radio's New Sound

Jack Gould, *NEW YORK TIMES*, January 1, 1967.

"To what extent the idealistic hopes of the FCC (increased diversity of program fare available) may be realized is questionable . . . most stations have begun the introduction of separate programming and where the aural enrichment may be is indeed hard to find. Only time and experience presumably will tell whether the theoretical appeal of limitless diversity will serve the public interest, or whether continuous fragmentation of the audience might be self defeating."

Other Gould observations:

—the last thing New York (with 40 a-m and 50 fm stations) needs is more classical music. The additional competition will slow the day of economic security for those fm stations needing support.

—the problem is not more variety for fm but more variety for a-m which needs to dilute itself of trash and add a few more fm riches.

—the sure cure for balance between the bands is a rise in the fm audience.

Gould's reaction to several stations efforts: ". . . WCBS fm has introduced something called the 'young sound' which for pure monotony seems without rival. WOR fm has converted entirely to rock 'n' roll and WNEW fm has recruited a corps of colorless girl disk jockeys to distinguish the outlet from the men disk jockeys on WNEW a-m."

Television's Creativity Crisis

Les Brown, *VARIETY*, December 28, 1966

"At the rate things are going, unless something remarkable happens in January when the networks unload their second season, all three webs stand to show a net loss in programming for the year. Not only has there been an absence of new hit shows to give momentum to the '67-'68 season, but many an older show is hinting strongly at running out of gas. Even more serious is that no new program trend is emerging and a time when several older ones are stalling. . . . The only trend to have come up strong this year has been a negative one—feature films. Implicit in their popularity on the home screen is the rejection of television's own fare. . . . Video now finds itself faced with a creativity crisis such as it hasn't known since the earliest days of the medium."

Brown says the industry is without an indication of what's "in" with the viewing masses:

—the fantasy comedy idiom is more than out this season

—the yokel show field is surfeited now

—spy thrillers are having an unspectacular season and the cycle appears on the wane

—ditto for man-on-the-lam shows

—suburban family comedies are gone, as are dramas with doctors, lawyers, teachers

—realistic war drama seems to be conking out

—also the barracks comedy is fading

—the comic book day may be very brief (Batman imitations are weak) though Mr. Terrific, starting in January, may prove otherwise.

Only strong shows, in Brown's view, to inspire imitators next year are science fiction such as Time Tunnel (when youngsters are viewers), heart comedy like Family Affair, and desert shows such as Rat Patrol.

Where Will The New Programs Come From?

Don McGannon, chairman of Group W, *MEDIA DECISIONS*, December, 1966

"New sources of programming of all types must be developed, and the industry cannot depend solely upon the networks or the producers of high-budgeted feature films as its sole reservoir. Television is using program material faster than it can be replaced. . . . Broadcasters—the stations, the groups—are going to have to increase their commitment to developing programming suitable not only for their own use but a product which can be syndicated to broadcasters all over the country. There seems to be no other course but for the same broadcasters to enter into co-production of feature films in order to assure the continuing supply of film product suitable for TV. . . . Much of the current Hollywood product is of adult nature which is not suitable for family viewing. . . . We need, in addition to our existing film packages, about 100 features a year to lend some new vitality to those we already have under contract. ". . . I'm hoping that the traditional American drive to supply a market when it exists will develop within the broadcasting industry, although I don't see it happening right now. . . . Broadcasters who enter into co-production deals to assure themselves film production for programming purposes have little hope to make a profit. They will do well to break even. Yet the broadcaster must assure the public and the advertiser suitable programming material. The best a broadcaster can hope for is to recapture distribution cost and hopefully, a service charge on the financing.

". . . TV is also a live medium, and there is a heavy responsibility to keep developing programs which are fundamental to the medium, such as specials, interviews and variety shows.

". . . A successful precedent has already been set. Advertisers' acceptance is evident from the commercial success of such syndicated properties currently ranging from Four Star's *Something Special* series to ABC Films' *Girl Talk* to Seven Arts' *Gypsy* to Triangle's *Step This Way*, and Group W's *The Merv Griffin Show* and *The Mike Douglas Show*. We all should be encouraged by these commitments to generic television programming which in most cases are produced at local stations."

Can TV Save the Films?

Charles Champlin, *SATURDAY REVIEW*, December 24, 1966

"One hope we can take from present-day Hollywood is its awareness—albeit reluctant—of the discernment of audiences at home and in the movie houses. If 60,000,000 people tune in *The Bridge on the River Kwai* of an evening they have tuned in to watch an excellent motion picture, and whether the picture is a well produced comedy or a more challenging film such as *A Place in the Sun*, the very fact that the audience will prefer a good old film over a mediocre new series gives the industry a sound reason to seek fresh new entertainment.

"The success of films on television is an opting for relative excellence. Only at its peril will Hollywood take it to mean anything different."

Uhf Programming

The Month in Focus, *TELEVISION MAGAZINE*, December, 1966

"Efforts by uhf stations to achieve programming parity with their elder vhf brethren were highlighted last month with the announcement that in 1968 the baseball games of the Chicago White Sox would move from WGN TV Chicago, a long established vhf station, to WFLD (TV), a new uhf operation in the same city.

"The scope of the agreement and other developments discernible last month seemed to auger the

end of uhf's nonage. Until this year, the average uhf station was a second-class citizen of the broadcasting fraternity and the bulk of its programming was either material shunned or discarded by its more established and affluent vhf brothers.

"Information available last month, for instance, indicated that sales of syndicated programs and feature films to uhf outlets have exceeded even optimistic projections industry sources had framed at the beginning of the year. In fact, the uhf market is expected to account for \$14 million in syndication sales or about 10% of all sales. Although the figure is relatively small, it assumes impressive significance since it amounts to four or five times the uhf aggregate in 1965."

Opportunity Knocks. Can Radio Answer?

Eugene J. Grealish, *Young & Rubicam*, *BROADCASTING*, December 5, 1966

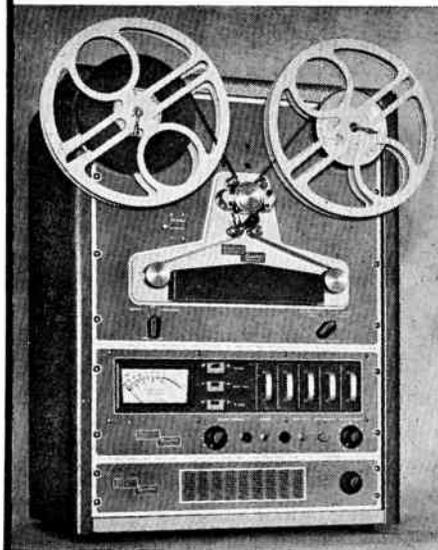
"Formats are rapidly becoming a more critical factor in station selection. Radio has become a much more personal medium than all the others. In response to this, stations are aligning their formats to appeal to a specific group of listeners. Radio will have to show us why one type of programming will be more suitable than another for the type of product we're trying to sell. . . . Radio should follow the lead of other media in developing data that will clearly define the differences in the audience appeals of various formats."

If you think Press Log should be continued circle 150 on Reader Service card.

SINGLE-SYSTEM EDITING NOW AVAILABLE!

NEW!

Model DR-1 Displacement Recorder



The Magnasync Model DR-1 Displacement Recorder automatically repositions the sound track of a processed 16mm single-system release print film to "editor's sync" . . . sound and corresponding picture "in line" . . . for rapid, accurate editing, and then automatically re-positions sound track to "printer's sync" or "projection sync" for immediate projection, most often required by TV and Documentary producers.

The DR-1 eliminates equipment associated with conventional, cumbersome, inaccurate double-system transfer of 100 mil original magnetic sound track to a second 16mm magnetic sound track. One Displacement Recorder, and viewer equipped with magnetic head are the only equipments required. "In line" editing eliminates "flip-flap" . . . unwanted, unassociated picture sound.

Unit may be interlocked with other magnetic film recording equipment and projectors including conventional TV chain projectors. An audio input permits addition of sound to unrecorded release print film, and playback audio output is provided for projection tracks.

Circuitry is modular plug-in solid state. Monitor speaker, headphone output and automatic switching provided. Available for 115 V, 50-60 cycle.

Price: \$1785.00 Send for literature.

Dealer inquiries invited.

magnasync

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magnasync/moviola corporation

A subsidiary of Monogram Industries, Inc.

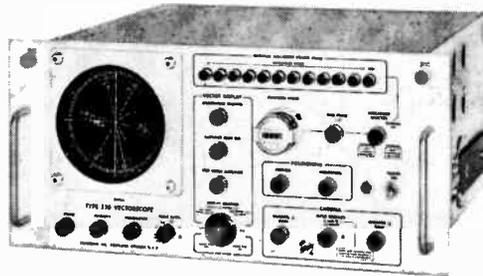
5539 Riverton Ave., No. Hollywood, Calif. 91601
Telephone: (213) 877-2791

Circle 17 on Reader Service Card

Tektronix Television Instruments

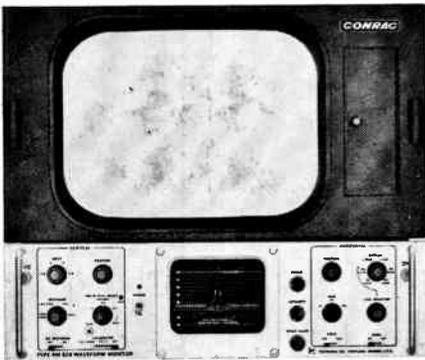
Type 526 Vectorscope for Chroma-Signal Displays

color encoder adjustments
differential phase measurements
differential gain measurements
vertical-interval-test-signal (VITS)
displays
video tape-recorder setup

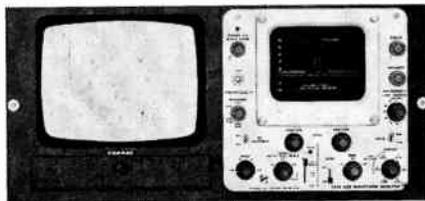


Measuring amplitude changes and phase shifts can be done accurately, conveniently, and independently with the Vectorscope. The Vectorscope presents relative phase and amplitude displays (of chrominance information in the N.T.S.C. color signal). Dual-trace capability permits simultaneous display of two color signals for precise matching of phase and amplitude. In addition to the vector display, the Vectorscope can present the chroma signal demodulated along any phase-angle with respect to time.

Type 526 Vectorscope \$1665
Size is 8 $\frac{3}{4}$ " high, 19" wide, and 18" deep.
Weight is \sim 45 pounds. Designed for rack mounting.



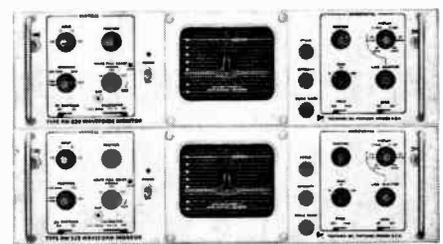
Type 529/RM529 for Waveform Monitoring



vertical-interval-test-signal (VITS)
displays
sine-squared pulse and bar testing
transmitter modulation monitoring
YRBG or RBG displays (with color-
processing amplifiers)
video signal-level monitoring
bandwidth measurements
differential-gain measurements



In waveform-monitoring applications, the Type 529 and RM529 offer 2 LINE and 2 FIELD displays plus calibrated sweep rates of 0.25 H/cm, 0.125 H/cm, 0.025 H/cm with X5 Magnifier, and 0.005 H/cm with X25 Magnifier. They provide 4 response characteristics necessary to monitor VITS—*FLAT* to 8 MHz (which assures excellent waveform fidelity for sine-squared testing with 2T, T, and 1/2T pulses), *HIGH PASS* 3.58 MHz, center frequency, *LOW PASS*—18 dB at 500 kHz, and IEEE 1958 STD 23-S-1. Other characteristics include a backporch type DC restorer, a positive-going field selector, and a full-field line-selector including digital VIT line selection.



Type 529 Waveform Monitor . . . \$1050
(8 $\frac{1}{4}$ " high, 8 $\frac{1}{2}$ " wide, 19" deep, weighs 24 pounds.)

Rack Mount Type RM529 \$1100
(5 $\frac{1}{4}$ " high, 19" wide, 20" deep, weighs 27 pounds.)

Power consumption of each model is \sim 80 watts — no fan used.

U.S. Sales Prices, f.o.b. Beaverton, Oregon

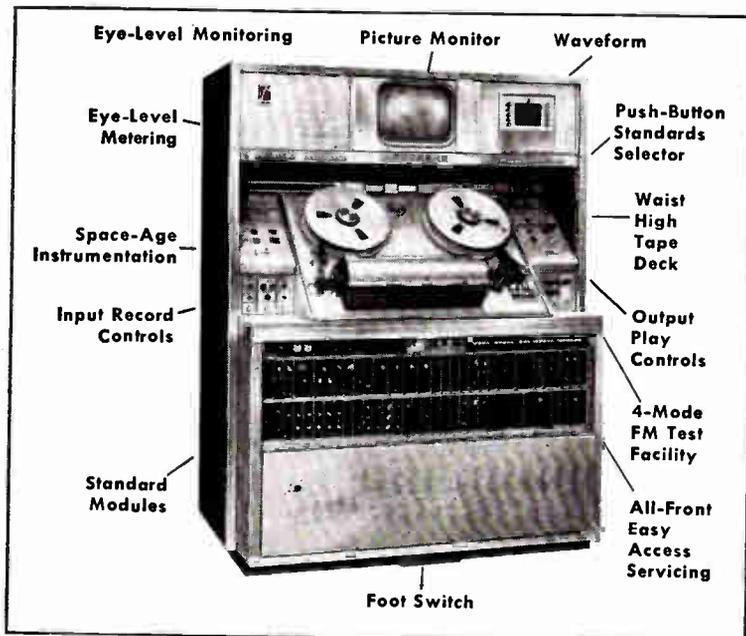
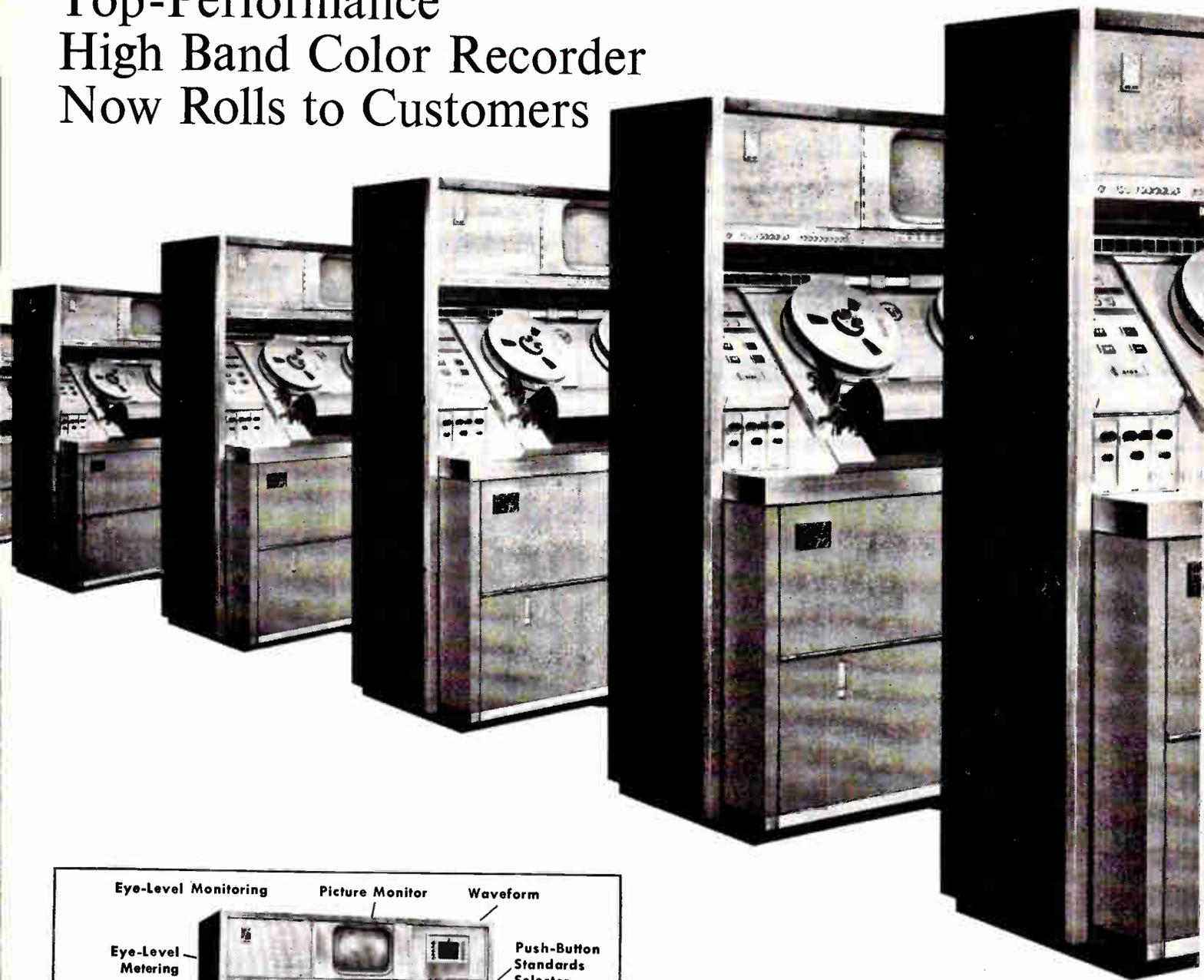
Tektronix, Inc.



For complete information, contact your nearby Tektronix field engineer or write:
Tektronix, Inc., P.O. Box 500, Beaverton, Oregon 97005

Here Come the TR-70's!

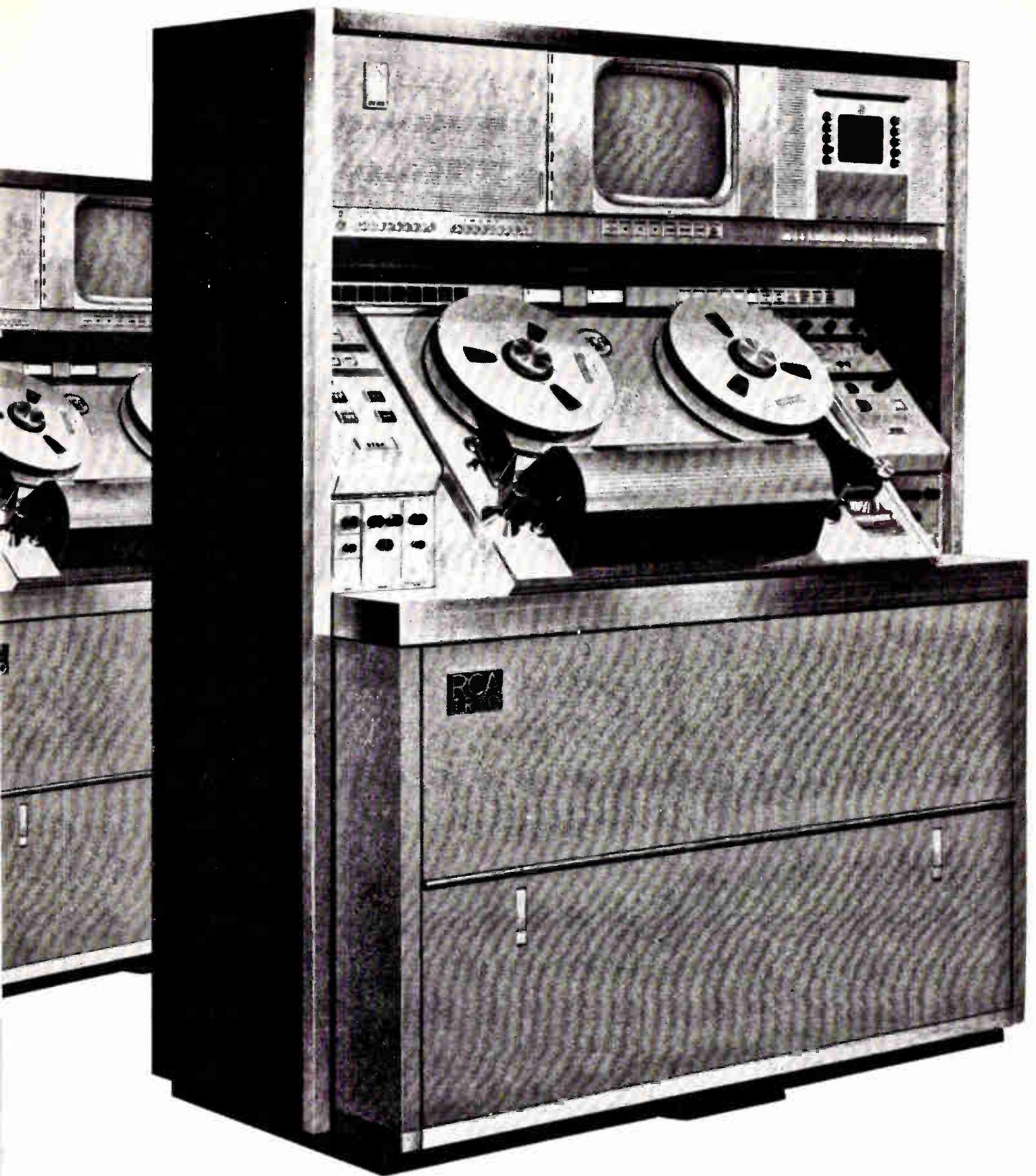
Top-Performance
High Band Color Recorder
Now Rolls to Customers



UNMATCHED CONVENIENCE—With the TR-70's unexcelled features for error-proof operation the best pictures snap in most readily and stay in without varying from day to day.

The one that leap-frogged all other designs is now taking another important leap . . . to users! Scores of these top-performance Tape Recorders with unmatched design features are coming off production lines as fast as we can make them, destined for users in United States, Canada, Australia and Europe... now.

Those who have waited will be glad they did. If you want operating ease that makes even the beginner a pro—you've got it. If you want performance that means tapes of increased brilliance and realism at all times—you've got it. If you want innovations that you expect the most trusted name in electronics to provide—error-proof controls, standardized modules, switchable FM standards (all modes built-in)—you've got every one and a lot of others, too.



If you're not yet on the list to receive one of these truly amazing recorders we suggest you see your RCA Broadcast Representative. Or write RCA Broadcast and Television Equipment, Building 15-5, Camden, N.J. 08102.



The Most Trusted Name in Electronics

Circle 19 on Reader Service Card

FROM *The* PUBLISHER

Long Live Live Local Origination

BM/E comes out of its neutral corner. For two years we have been covering the industry from a strictly reportorial point of view. But just as broadcasting "never has been, and cannot be, restricted to being only a mirror of our society," to use WBC's Donald H. McGannon's words, BM/E can no longer be only a mirror. McGannon calls on broadcasters to be a force "to solve the problems of our city instead of merely reflecting and reporting them."* BM/E will be, admittedly, a small force, but it will take editorial positions on various issues facing the industry.

Because this issue is devoted to aspects of programming, we have to face squarely the issue of CATV program origination. Aware that the majority of our readers—those who have only broadcast interests—are vigorously opposed to any further expansion of CATV services, we must risk unpopularity and declare ourselves in favor of live local origination.

We've never been against weathercasting—nobody can do anything about the weather, anyway. We're cool to AP & UP news ticker services—radio can do it better. We're not at all interested in seeing flicks cablecast; if, however, the channels are empty in some particular remote spot, we see no harm done here. It's in-depth, local origination we embrace whole-heartedly. It's easy to endorse city council meetings, high school football games and Fourth of July parades (who could be against this?); what we enthuse over are programs that by their existence make the community more aware of itself—its shortcomings, strengths, and potentialities.

Living, personally, in a metropolitan suburb not served by CATV we feel a bit cheated and impoverished that we have no media for easily keeping up with the local scene.

We've missed oratorios, choruses, symphonies, dramas and art shows put on by some half dozen different local cultural enrichment groups. Once in a while we'd like to tune in on one of the several extemporaneous Great Books discussions going on. There's a Community Development for Youth program evolving, and there are Community Action Council deliberations taking place concerned with urban renewal, job development, housing and relocation. We're concerned about spot down zoning and the absence of architectural standards for new buildings. There are deep concerns that consume the energies of those making up a local human relations council. We like to switch in on these affairs as well as the hot debates going on over library expansion and school curriculums. The ability to switch in may lead to one getting switched on—becoming involved.

If broadcasters accept McGannon's entreaty to become a force involving problems of *cities*, they should also favor CATV operator's becoming forces in helping towns and villages.

Other aspects of CATV program origination such as economic injury do not convince us of danger, real or implied. Uhf stations on the air have not been hurt economically by CATV insofar as we have seen. For every U application delayed because of a local CATV doing local origination, another may be constricted earlier because the market tested out not too risky.

CATV origination is now amateurish. Broadcasters have long forgot tricks cablecasters are now learning. CATV must quickly achieve excellence. High standards should be adopted early—before the FCC or city councils establish them. Any franchise holder, nonexclusive as well as exclusive, has a responsibility to provide quality.

James A. Lipke

*From Westinghouse Broadcasting Co.'s three-day public conference on urban affairs, October.

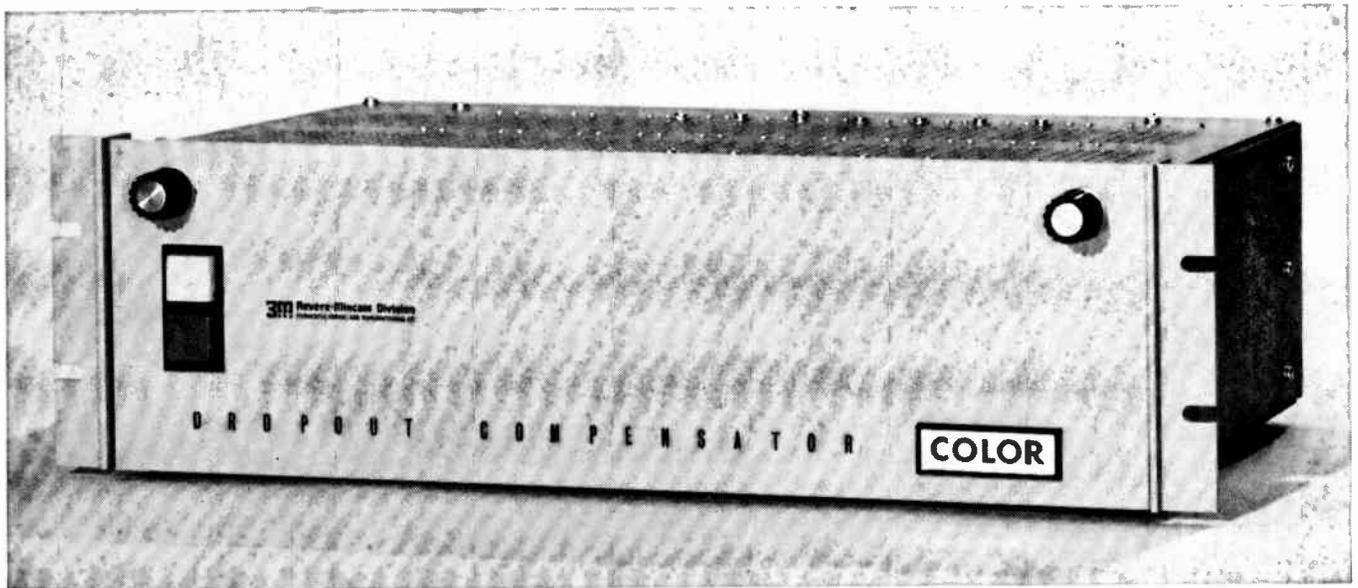
. . . In addition to taking an editorial position, BM/E has in this issue expanded its news coverage of trends and activities in broadcasting, CATV and ETV and has added a department, Press Log, which contains commentary from other industry publications. We'd like your opinion: shall we continue or drop these features?

	Keep	Drop
CATV	146	147
ETV	748	149
Press Log	150	151

Vote by circling the appropriate number on the reader service card.

Thanks.

only
 3M
 gives
 you
 true
 Color ○
 Dropout ○
 Restoration ●

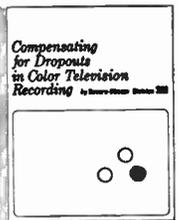


Revere-Mincom conquers the Color Dropout Problem

When color VTR is subjected to ordinary dropout compensation techniques, some improvement may result. Often, however, these primitive techniques generate effects more distracting than the dropout itself. Two examples: 1. Switching transients due to FM substitution. 2. Color phase inversion caused by one-line information delay.

Revere-Mincom's Color Dropout Compensator solves the problem of keeping the Danube blue, Hornets green, and signals in the pink. It's compatible with all time correction units, Hi-Band, Low Band, Color and Monochrome.

For more information about color dropouts and Revere-Mincom's Color DOC, write for this booklet:



Revere-Mincom Division **3M** COMPANY
 300 SOUTH LEWIS ROAD • CAMARILLO, CALIFORNIA 93010

Please send me a copy of the booklet,
 "Compensating for Dropouts in Color Television
 Recording."

Name _____ Position: _____

Company _____

Address _____

City _____ State _____ Zip _____

Circle 20 on Reader Service Card

OWNING AND OPERATING a small independent a-m radio station starts with a dream, but can end in a nightmare if you're not careful. I know an owner who began with a career and would up with a shoestring because he did not follow the simple formula of providing good public service and good sound. This man kept his eye on the cash register when he also should have kept his ear tuned to the sound of his station and his eye on the service he was rendering to his community. Simply knowing this successful formula is not enough, you must practice it!

Strangers In Town

The FCC granted our CP in February of 1957; we went on the air in May that same year. We were strangers in a new, virgin market. The weather was bad, increasing the tension because of delays in our building schedule. Farmers in the area were up against it too because they couldn't get their cotton and soybeans planted in time. Merchants knew nothing about the power of radio advertising because they had been using the print medium exclusively. Skepticism prevailed among our potential advertisers. There wasn't a person in sight who even knew how to handle the operations desk of a radio station. Announcers were nonexistent; the only bright spot was in the person of a qualified engineer with considerable experience in radio who agreed to install our equipment.

We were ever mindful of our promise to the Commission that we would provide a primary service to the community. We knew that this service was needed because none ever was available. Many people encouraged us to build the station but, when it got right down to cases, they took the let-Charley-do-it attitude. We had promised the Commission that we would emphasize agricultural news, up-to-the-minute weather information, and local news.

KMAR Takes Shape

We enlisted the aid of our agricultural county agent in survey-

ing farmers to determine when they would like to hear agricultural programs. The Louisiana Forestry Commission said they would supply us with weather news. We went on a door-to-door survey asking people what kind of music they liked, and when they would appreciate hearing it. This also served as a personal promotion for the station. We got

"GRASS ROOTS" RADIO

By Si Willing

The epitome of small-town radio, KMAR Winnsboro, La., is by all interpretations in the community.

permission from many people to let us tell the merchants downtown that they would listen when KMAR took to the air. This herculean effort also put us in touch with prospective personnel and gave us a good idea of what many of the people expected from our programming. Upon learning that local news, country and west-

Mr. Willing is pres. and general manager, KMAR Winnsboro, La.

ern music, religious music, sports and news of interest to the farmer would be our main bill of fare, we set out to put them into a ear-appealing sequence. Our competition would come from other markets located within a 50-mi radius. We monitored the competition and heard screaming announcers, wild music, mild music, news on the hour and news on the half hour. We heard lots of things. After long hours of planning, we decided to establish local empathy by being just "plain folks."

Armed with the results of our personal survey, we revisited the merchants and asked permission to prepare commercial copy for them. Since the station was still under construction we put the spots on tape, using a hi-fi player to supply sound effects, background music, etc.

Then came the job of getting a good staff for the traffic department. We hired one of the ladies we met during our survey. It was true that she had no experience, but she was willing to learn how to make up the log and keep the books. We selected three announcers from applicants who answered our magazine ad. Charley Graves was our chief engineer and yours truly was sales manager, relief announcer, local newsman, etc. To insure complete local news coverage, we hired a responsible gentleman who knew the community to cover the news beat. During the week between our field tests and the start of programming, we simulated the station sound on tape, including at least one commercial for every potential sponsor in town, and then asked to present this as the program for a Lion's Club meeting. This was just two days before we were to go on the air. The results were phenomenal! The merchants bought time. We pledged to every sponsor that we were not just tourists, and good service was to be the theme of our station.

Solidifying Our Position

We went on the air with a log full of commercials—all on our rate card! There were no deals,



(above) Since cotton is a major Franklin Parish product, KMAR covers auction of the first bale sold in '66. That's auctioneer Billy DuPissey with the mic, grower R. C. Bailey (c), and buyer George Godfrey.



(top left) KMAR personnel buy advertiser's products. Here, Si Willing gives an account of his purchase of a new pair of shoes at Morse Dry Goods.



(top right) County Agent Austin Smith (r) is recording cotton crop report.



(bottom left) Dual control room facilities provide 2-voice on-air production and separate recording studio.



(bottom right) Traffic manager Louise Strong can also double as newscaster.

(below) Compact equipment arrangement in the main control room permits efficient operation and tight production.



MARKET DATA:	0.5 MVM Coverage	0.25 MVM Coverage
Total Population	70,700	299,500
Total Households	18,350	81,850
Radio Homes	17,580	80,050
Passenger Cars	24,560	110,350
Consumer Spendable Income	\$70,137,000	\$67,538,000
RETAIL SALES:		
Food Stores	\$11,223,000	50,621,000
Drug Stores	\$ 1,968,000	9,181,000
General Merchandise	\$ 3,431,000	29,702,000
Apparel Stores	\$ 1,996,000	14,886,000
Home Furnishings	\$ 1,132,000	9,918,000
Auto Sales	\$ 8,457,000	50,664,000
Filling Stations	\$ 4,815,000	24,459,000
Building Materials	\$ 7,350,000	38,840,000
TOTAL RETAIL SALES	\$47,159,000	258,242,000
FARM DATA:		
Farm Population	44,900	102,600
Farm Households	10,600	24,080
Farm Radio Homes	10,100	23,600
Gross Farm Income	\$38,552,000	98,625,000

SOURCE: United States Census Reports on Population, Housing, Agriculture, Retail Trade; SRDS Consumer Data; REA Farm Survey Reports; RETMA. (1962-63)



KMAR market data and coverage map.

packages or other gimmicks that could put us into the nightmare category. Our rates were simple, easy to remember, and within reach of most merchants without being classified in the poverty category.

To solidify our position, we invited the principal of our high school to offer better students a free training course in announcing techniques, to be conducted at the station three nights a week. I taught these classes myself and developed a group of students who could eventually fill in should there be an opening.

More and more, I had less and less time to spend at the station. Servicing my accounts was a full time job. An office manager was needed. But whom? Why not that bright young man who is doing a good job on the air and shows

aptitude for catching on to procedure? We designated him office manager. His job was to be my eyes and ears. All messages were to be logged in a daily diary. Also, we realized that it would be a good idea for all staff members to learn each other's job. In addition to announcing classes at night, we exposed announcers to traffic, traffic to announcers, and all hands were being taught the technique of copywriting.

These were busy days and nights. To avoid mixups in getting the correct copy to go on the right day, we posted 7 pegs around the wall of our control room, a separate peg for each day of the week. All copy and news for, say a Tuesday, was put on Tuesday's peg. No chance of error here unless somebody was careless. We used the same idea

for taped programs; they were safely hung on pegs for the days they were to be played.

Program Format

We play country and western music in the morning and have a mid-morning session of sophisticated religious music. Our "Farm and Home" program runs from 11:30 A.M. until 1 P.M. This consists of country and western music, county agent's report, soil conservation report, and auction barn quotations. We have local agricultural views and news programs, too. These are brief reports presented on a rotation basis by the chief of each local department, such as the Cotton Classing Office, The PMA, the FHA, and so on. These also include reports from the LSU Cotton Experimental Department and Sweet Potato Experimental Farm. Popular music is programmed from 1 P.M. until 3:30, followed by the local hospital report, local news at 7:30 A.M. and again at 4:30 P.M., we have an "Obituary Column of The Air." Our birthday and anniversary report is presented at 8:30 in the morning. There are many local tidbits such as gallons of water consumed each week, new families in town, church and civic club news, etc. All of this combined with our AP news service makes us a very informative station and that's what the people like to hear.

We have two in-depth 10-minute newscasts; one at 7:30 A.M. and the other at 4:30 P.M. Five-minute newscasts before the hour are scheduled throughout the day, and a 15-minute comprehensive newscast is presented at 11:45 A.M. "Louisiana Forestry Weather News" is aired twice daily at 10:45 A.M. and 1:15 P.M. National news briefs and local nutshell reports are inserted every hour on the half-hour. By the way, all of these features are sponsored. Our local Ford dealer sponsors 30-second sports reports and the Chevrolet dealer sponsors 8 weathercasts a day. We have stringers in adjacent towns who report via beeper phone whenever there is a story. Our survey uncovered the fact that school buses have portable radios. We set up The School Bus Special for the kids on buses at 3:30.

We have a separate recording studio where we can tape commercials, interviews, etc., without

To The Folks In Franklin Parish

Here is a letter I recently wrote to Mr. Si Willing, manager of KMAR Radio Station in Winnsboro. After writing it, I thought that some of you may not know of Mr. Willing's and his station's devotion to a Better Louisiana, and decided to place it in The Franklin Sun.

Dave L. Pearce

Daton Rouge, La.
May 11, 1964

Mr. Si Willing, manager
KMAR Radio Station
Winnsboro, La.

Dear Mr. Willing:

I very much appreciated and enjoyed the opportunity to appear before the Winnsboro Lions Club last week, and the brief visit with you and others of my Franklin Parish friends.

But I didn't get to tell enough people about the important role news media such as your KMAR Radio and Mrs. Louise R. Lipp's newspaper, The Franklin Sun, have had and still have in our statewide BUILT LOUISIANA By Using LOUISIANA PRODUCTS program.

Actually, you and KMAR were pioneers in this program, and have many times gone far above the normal "Public Service" commitments of your station, and in personal efforts, to help tell this continuing worthwhile story. All this, without a dime charged to anyone for it.

Last year, Louisiana was the No. 1 State in the nation in increased sales of Farm Products. The gain was 14.2 per cent over 1962, or \$52 million.

Credit for this impressive record goes largely to people like Si Willing and stations like KMAR. Our BUILT LOUISIANA program benefits everyone, news media included.

And I want all the folks in Franklin Parish to know of your personal usefulness and voluntary assistance, which all of us in the State Department of Agriculture value highly and appreciate very much.

Sincerely yours,

DAVE L. PEARCE,

Commissioner of Agriculture
and Immigration

Letter from regional advertiser indicative of station's reach.

Community

COFFEE CO., INCORPORATED

PHONE 61 4-6371 • 2151 NORTH THIRD ST. • P. O. BOX 791 • BATON ROUGE, LA. 70821

March 23, 1964

Mr. Si Willing
Radio Station KMAR
Post Office Box 312
Winnsboro, Louisiana

Dear Si:

This is your authority to continue Community Coffee Company, Inc., radio cooperative promotion during April, 1964. Also, please check with me in advance of the first of May and the first of June with regard to the possible continuation of above promotion during these months. Because of your cooperation the Sales Department is of the opinion that radio has been responsible for maintaining sales of Community Coffee in your coverage area at a very high level.

Best personal regards.

Sincerely,

Roy

Roy R. Radebe
Advertising and Sales Promotion Manager

COMMUNITY COFFEE COMPANY, INC.

RD:dk

This letter reveals station involvement in community and area affairs.

interfering with normal operation. We use cartridge equipment, and have several commercial sound libraries. Whenever we get a shipment of records, we audition them to see if the music will fit our format, and also to see whether we can use any part of them for sound effects, background music, etc.

Keeping Advertisers Happy

The average merchant in a small town is used to paying for tangible merchandise. When he gets a bill for a carload of beans, he comforts himself with the fact that he'll make a profit when he sells these beans. He can see the product; he can taste it. But, when he gets a bill for radio advertising, he wonders why he should pay for it, especially when he's been too busy to listen for his announcements. Out of this discovery there evolved a plan that any station might use. We asked the telephone company to make it possible for us to play the final recorded spots on the telephone so merchants can hear their spots as they will actually sound on the air! We found this to be an easier way to get continuous schedules. Merchants appreciate the fact they have the final word on how their copy should sound. We went one step further and asked merchants to make their own spots. Many are still doing this.

A spot announcement gives a message regardless of the time it consumes. So, our spot announcement rates apply to spots regardless of length. A sponsor buys on a 12-consecutive-month schedule. If he buys 500 or less, the local noncommissionable rate is \$1.50 a spot. If he buys 501 or more the rate is \$1.25 a spot, and that's as simple as you can get. This year rates will go to \$2 and \$1.50, respectively — no packages, no deals. Nothing but an advertiser's promise to use the number of spots specified within a 12-consecutive-month period. Our guarantee to the sponsor is a clearance of at least 20 minutes on either side of kindred accounts, actually an exclusive time zone for the sponsor. In some instances, you just have to bump latecomers; that's revenue lost for us, but good business. The point that I'm making is that this is a realistic selling tool. We are not hampered by a specified time to get the message across. We fit the message to the time and not

the time to the message; we do not, however, exceed 60 seconds. Check us in SRDS and you'll see that we have the same formula in our national rate setup. The little bit of national business that we get comes from time buyers who are at first startled with our arrangement. These time buyers later admit that they are refreshed with our idea and agree that it's the message they want to present that's important and not how long it takes to present it.

We have no frequency discount for local programs. Our 5-minute program rate is \$7; 10-minute programs are \$12 each; we charge \$17 for 15-minute programs and \$25 for 30-minute programs. Our morning devotional program at 7 A.M. is given gratis; all other church programs are on the local rate card. Church announcements are given gratis, however.

Community Involvement

How to become more local? Why not have local school chorus students sing commercial jungles? A great idea, and it works! Also, we have musical combos from the high school band play the music. What about local public service? Besides participating in all the traditional fund raising drives for the band parents, Lion's Club, VFW, etc., how about creating a new kind of fund raising event? Let's see, who needs help? Ah yes, the Association for Mentally Retarded Children can always use extra funds. We accumulate stacks of albums and records that were not broadcast quality but still good enough to play at home. We have a record and album auction and give all proceeds to retarded children. Every year we raise hundreds of dollars for this worthwhile cause and our audience is tickled pink with the fact that they can buy 50 records at their own price. We auction off a stack of 50 records once a day until the supply is gone. The average bid is \$8.50 a stack.

Periodically we survey the audience for programming tastes. We offer one dollar for each letter containing a worthwhile programming improvement and then pay \$100 to the writer of the best letter in the group. These are judged and evaluated by our broadcasting colleagues in other towns. We learned a long time ago that humor was an essential

part of our broadcasting diet. This was brought to light as a direct result of our surveys. We pay a dollar for every true-life humorous story submitted and used.

Our policy is never to let a man work on the air until he has a working knowledge of every department. He must know how to make up the program log. He must write acceptable copy and he must get his third class ticket. He appreciates the importance of servicing accounts because he checks out finished cartridges over the phone with sponsors.

Our listeners know that when they hear a local news story on KMAR it is authentic because it has been checked with respon-



Mrs. Sam Carrier is accepting a check for retarded children.

sible authorities. Our sponsors know that we give unstinting service without servitude because we do not adjust our rate card nor do we compromise quality. If you can sleep nights without fear of someone finding out that you made a deal with his competitor, then you're on the right track. If you can sleep nights knowing that your station's sound is what most listeners want and is in keeping within the Code, then you're doing well. But, if you are concerned because your audience is shrinking due to poor sound, garbled news, unbelievable commercials, and a staff not dedicated to a common goal, you have a tower of Babel and not a successful station. ●

CATV Local Origination: Selecting & Producing Programs

Planning to break into CATV program origination? Here are some pointers on where to look and how to do it.

"LOCAL ORIGINATIONS, YEAH, WE'VE THOUGHT ABOUT IT. Let's see, there's the City Council Meeting, the Fourth of July Parade, and . . . oh yeah, we could televise the local high school football games."

"What about an evening news show?"

"Ah, I guess we could do that, too."

"Anything else?"

"Ummmm, can't think of anything right now."

Surprising, isn't it, how many CATV operators, when popped the question of what locally originated programming they would televise, start off with city council meetings. Fourth of July parade and the like? Some operators who have been originating programs for some time were the same way—at first. But when you seriously consider what there is to televise, the list is almost endless. In one case, a multiple system operator has three complete mobile units and a fourth crew in the studio, and still isn't able to use all the programming he can produce!

You will discover—very quickly—that the community itself and the people you serve are the best sources of program suggestions. People have the darndest suggestions and a surprising number are worthy of consideration. After a few cable-casting efforts you may be able to literally turn your programming department over to the people themselves. Your only real concern then will be scheduling.

Civic Functions

Brazenly announcing that you will televise city council meetings may not win you any *new* friends at city hall, and it could jeopardize some *old* friendships. In short, clear this with the city fathers before you announce your intentions. The town council may need to be sold on the idea, and the selling job may be even harder than acquiring the franchise—even though you are dealing with the same people!

In very small towns of 2,500 people and under, the town fathers usually have only a token amount of business anyhow, and the meetings seldom last over an hour. Our experience has been that small towns are anxious to allow your cameras inside the meeting hall.

In towns of 2,500 to 15,000, the size of the agenda seems to increase logarithmically and a 2-hour-plus meeting twice a month is not unusual. If your city has a full-time city manager or paid mayor, this will be especially true.

Often in communities of this size, so-called routine items such as budget expenditures, zoning, and street work are passed quickly and without fanfare. The city fathers usually want it left that way. You might develop a special format for the slightly larger communities where all public hearing items and new business is scheduled at the start of the meeting. In this way you can televise just that portion which has genuine civic interest for the community at large, cutting away before the routine matters come up.

Most city council chambers are small, acoustically poor, and only moderately lighted. If the chambers have their own public address system that is your best audio source. City council members are nervous enough about being televised without having to wear throat mikes or to look up and suddenly see a boom and microphone directly overhead. In short, be inconspicuous with your presence and operation. If possible, place your camera away from the front rows of chairs and use your zoom lens to get in close. If you are back in the audience with your camera, get the camera up on a stand so you can shoot over people's heads.

There are other city functions worthy of coverage, depending to a certain extent on the size of your community. These include planning commission, county board of supervisors, and even the city board of education meetings. In most states, TV coverage of these events is not a *right* extended to the news media under existing canons. You will probably need official permission before you can march in and setup for production.

Local Sporting Events

Your community has at least one high school, probably more than one. You may also have a local junior college and perhaps a college or university.

Experience with high school sports indicates that live telecasting, even if it could be done, is often forbidden. High schools depend on their altogether-too-small gates to sustain their athletic programs. Simultaneous telecasting would cripple their gate. *But*, videotaped replay is a

CATV ORIGINATIONS

Thirty-six percent (527) of the 1440 CATV operators who have filed material with the FCC do some kind of the program origination. Another 8 percent plan to start such service according to a report in *Television Digest*, January 9, 1967. Here is a Recap of the services offered and planned.

	Now	Plan
Time and Weather	430	115
News Ticker	52	41
Film	28	42
Local live	97	91
Other	103	43

Other breaks down about evenly into news or public service and background music.

Data on origination from CATV systems, showing kind and number of hours weekly is included in *CATV Log* available last week from *Television Digest*, 2025 Eye St., N.W., Washington, D.C. 20006. Nonsubscriber price is \$14.50.

big booster to the gate.

Friday night football games can be videotaped and replayed Saturday morning. The same video tape may be replayed a second time the following Monday evening, if the game was of sufficient importance. If you operate systems in two or more closely-spaced communities, you can rotate from system to system in such a way that during the football season, each school has at least two games taped and replayed. When schools in two cable towns play each other, one video tape can perform double duty by being replayed over both systems at least once.

High school football runs 12-minute quarters, or 48 minutes overall. This gives you 12 extra minutes on a 60-minute videotape for huddles, a few minutes of halftime activities, and opening and closing. You can't run your VTR through timeouts, however, or you will probably come out short at the end. This means stopping and starting the VTR. In any sporting event, two cameras are much preferred to a single camera and three would be even more productive.

The audio portion of a football game (or other sporting event) is something of a problem. Usually the high school stadium does have an announce booth. Most high school PA systems are 100 watts or more, and you simply can't announce an intelligent game while sitting under four 25-in. speakers with 100 watts of audio trembling the booth.

If the game is radiocast simultaneously, you might make arrangements with the local station for their audio feed. The only problem this presents is catching the radio announcer in the middle of a word or phrase when you reactivate the VTR after a timeout. You can cure this by fading the audio up after restarting the VTR, however. If you do your own announcing, you can handle it from one of the camera positions.

Line voltage fluctuations present a real challenge to the remote cablecasting crew. If there is any chance that line voltage will vary or fluctuate wildly, be prepared to regulate at least the camera(s) and the VTR. Stopping and restarting the VTR under fluctuating line voltage

Photo taken directly from TV screen shows how simple title board is used. Title board is artist's back-illuminated light box. White letters with adhesive backing are placed on clear glass and positioned in front of light box. Frosted glass of box diffuses light and letters appear black on white.



conditions, for example, can and will cause momentary losses of horizontal sync in nonvoltage-regulated VTR units.

You may find it advisable to run all of your cameras and the VTR from a *single* ac source. If the line extension to the furthest camera is long enough to introduce a serious voltage drop, a voltage step-up transformer can be used. In this way all equipment will be subjected to the same line voltage variations, and sync problems will vary accordingly and in unison.

Video lines from the camera (s) to the mixing-switching console should be double-shielded RG-59/U (triax) cable to minimize stray interference pickup. The extra thickness of the triax cable offers added physical strength since it probably will be stepped on, kicked, and run over by numerous vehicles in the course of a single game.

Incidentally, most high schools have a boosters club composed of parents and local merchants. Even the smallest schools try to shoot home movies of the game for showing at the following week's luncheon meeting. You may find taking your video tape of the game down to the luncheon is a worthwhile PR effort for the cable system.

Other high school (junior college, college) sporting events are more difficult to cover with one or two cameras. Basketball may be too fast for your inexperienced crew, but it may be fun to try—especially if there is a tournament or other special attraction. Baseball is nearly impossible with the limited equipment available. However, wrestling and track offer very real possibilities.

Local Entertainment Events

Valley-Vision's very first videotape program was a near disaster. They tackled what seemed to be, on the surface, a simple assignment—a live Little Theatre play. They used only one camera and four mikes, but the camera was spotted down in the audience. As things turned out, the acoustics of the theatre were so bad that two rows out front you could hear only a mumble from the people on stage. Then the

When Lakeland, Florida radio station Wonn covers the news, as it did this fall during a local City Commission election, Community Cablevision of Lakeland will be right on hand with a videotape report. Here Dan Sanborn of Wonn and Community Cablevision interviews two winners in the Nov. 1966 election.



crowd decided to participate in the play (a melodrama) by hooting and hissing whenever the villain appeared. To make matters worse, the play ran long (72 minutes) and the line voltage fluctuated from 95 to 135 volts as the light-mad director switched great banks of luminescence on and off.

When the tape was brought back to the studio, all it contained was 60 minutes of noisy audio and video that dropped in and out of sync for 25 seconds at a time. The "producers" had no desire to cut up the tape itself (at \$60 an hour you want to keep your video tape as virgin as possible), so they decided not to edit out the bad portions. It took them a full 8-hour day of very careful timing and overdubbing bad portions with "a message from Valley-Vision" to make the tape airable, but they learned that a lot can be done with a bad tape if you use a little imagination. For example, wherever they lost video because of bad sync, they overdubbed the video with a title board sign that read "Your Indulgence Please." When a particular song was so filled with crowd noise that it was useless, they cut away from the performance for a minute or two (as long as the number lasted) and overdubbed a new bit of audio and video from the studio by way of explaining the theme of the play itself. The cable firm received several letters from viewers commending them for the show. And not a single splice in the tape!

The moral: plan ahead, and, *look for trouble*. If the play producers will go along with you, set up a special VTR session and go through it scene by scene until you have it to perfection on tape. After all, the actors want to be seen in the best possible light, and a mishandled production doesn't do them justice.

There are exceptions to this rule. One is the special school program, a pageant, or other special event. One of the best tapes we've heard about came from a 45-minute program at a local high school. The CATV system had requests to reshoot the tape from so many quarters that it finally ran three times to satisfy all viewers. Whenever you are forced to tape or televise a live event with an audience present, under condi-

Kids are the greatest as Art Linkletter has proven for many years. Kiddie programs, taped during the week, are run on videotape over the weekend. Special periods during the week are set aside for videotaping of kiddie vignettes. Small, inexpensive prizes donated by local merchants help make the program a success.



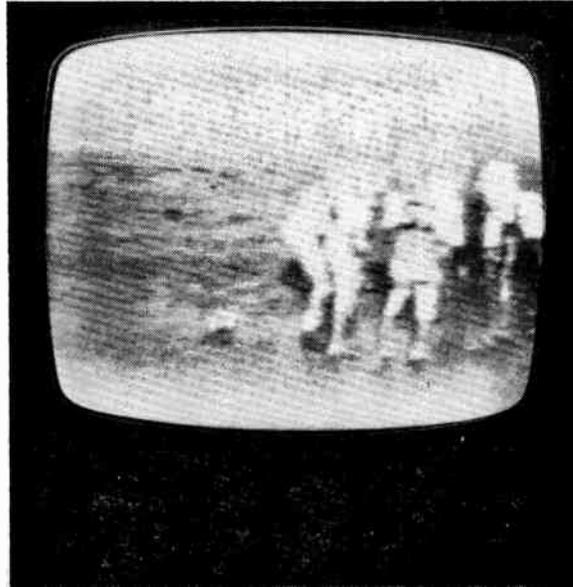
tions that were designed for the audience and not televising, take the time to plan your camera locations, and most important, your audio pickup points. Walk through the entire show with the individual responsible for producing it and locate your sound source spots. At this point you can suggest that certain groups or individuals stand *here* or *there* for better mic response; the producer will usually be happy to oblige.

In Placerville, Cal., a local ballet teacher asked the CATV system to videotape a special show. At first they had visions of a few little mother's darlings tripping over each other for 30 minutes. Four times each year a touring ballet company appeared in the high school auditorium with a really first rate ballet. And at \$2.00 a head, the house was always sold out! So the system operators recorded the event on tape. For audio they used two mics located in the orchestra pit. Two cameras, one in the wings for side views and another on a platform down front at stage level, gave the necessary video pickup coverage. The ballet was shown twice on schedule and has been rescheduled because of demand. And the producer wants the system to televise the other quarterly appearances in the future.

Special Speakers

In another system the operator was invited to speak about cable TV at the local Kiwanis Club luncheon. It occurred to them that this would be an excellent opportunity to show off their videotaping equipment, and to take the Kiwanis club on a tour of their facilities at the same time. They proceeded to produce a 25-minute videotape, starting at the head end, then along the system, and then finally in the studio-office, explaining what CATV was all about. After they played the tape, they were told that the following week a leading expert on narcotics was scheduled to speak to the group. Three weeks hence, the speaker was to be a baseball star. The system operator asked if he could videotape the speakers. This was the beginning of a first rate source of material for his sys-

High school sports provide excellent opportunities for the cable system to drive home the "home town TV" appeal of the system. Although videotaping outdoor sporting events, at night, presents unique and trying technical problems, the effort is well rewarded when new subscribers sign up to "see their Johnnie" on TV.



How One Operator Does It

From a modest beginning about two years ago, Antenna-Vision, Inc. with one camera, six 300-W lights, and a mic, has expanded its facilities to include a modern studio, and a control room. Video now originates from studio cameras, a film chain, an Ampex video tape recorder, and still and slide cameras. The control room has switching and mixing capabilities for all video and audio inputs, as well as for selected remote equipment.

Live programming begins at 9:00 A.M. with "Wav-3 News"—a program of news and sports of a strictly local nature. Though no regular newsmen are on duty in the late evening hours, regular staff members are given access to news cameras and portable recorders for covering worthwhile major events. Arrangements are being made with five high schools in the Antenna-Vision coverage area for student representatives to attend local village council meetings and report developments for transmission the following morning on the news show. The evening news has a format much the same as the morning news with occasional interviews with prominent local personalities. Antenna-Vision anticipates expanding the interview portion of the

news into a separate show with a format of controversial conversation. The Sunday afternoon schedule regularly calls for "Teen Time"—a teen dance show.

Probably the show Antenna-Vision gets most response from is the "Abel Cable Show"—a popular and unusual children's program. Games, prizes, cartoons, contests, and visiting children are the usual bill of fare. Each child who appears on the program receives an Abel Cable pin which makes him a member of the Abel Cable Club.

Special events have played an important part in Antenna-Vision's programming. Coverage has been given to high school football games with a video tape recorder. Rapid election results are gathered by technicians using two-way radios at polling places.

During the Christmas season, Antenna-Vision schedules a Santa Claus program with visiting children. Local merchants display toys and donate gifts that the children can take home. Future plans for Antenna-Vision include a weekly show with the feminine point of view, and a monthly report from a state assemblyman. More films for daily showing also are on the agenda.

tem. As special speakers come to town to speak before local civic, fraternal, and educational groups, CATV is there to videotape the presentations for later showing on the cable.

The Town and Area

Out around Modesto, California the area is rich in local folklore, dealing mostly with the famous 49'er Gold Rush days. Some of the cable towns were gold mining centers and in fact owe their original creation to gold. Valley Vision has built a series of regularly scheduled programs that run at the same time each week, or month, on three systems. One of these is called "49'er

Cracker Barrel," a 60-minute program produced once a month. Some are produced in the studio, others are done on location with the firm's mobile studio van. In producing "49'er Cracker Barrel" the system seeks out old-timers from the gold mining days and screens them to form a panel of three to four who still have their natural wit and historical recall. A local newspaper man moderates the program, and using authentic era artifacts leads the participants into discussions about the old gold mining days. Keep in mind that these were rip-roaring days with riots, mine cave-ins, and local sin. This

(Continued on page 70)

TELECOM PROGRAM

MONDAY, NOV. 7

6:00 P.M.—JOHN THOMAS and AMY VAN VOORHIS show how school children receive "extra curricular benefit" from various organizations and activities in the community.

6:30 P.M.—Sunny Rinehart continues her pastel drawing demonstration.

TUESDAY, NOV. 8

6:30 P.M.—Girl Scouts SALLY HESS and LINDA NELSON, Scout leader MRS. GEORGE YOUNG, doll collector MRS. GRACIE MORGAN, MRS. SARAH OATES, and Goodwill Industries director MRS. MARJORIE BEU will talk about the Dolly Derby, held annually by the Girl Scouts in conjunction with Goodwill Industries.

7:15 P.M.—Lesson No. 3 of OUR CHILLICOTHE HERITAGE entitled Settlement of Chillicothe—Miss Rosemary Yager, teacher.

THURSDAY, NOV. 10

6:00 P.M.—"The Story of the Friendly Hands of Goodwill"—a premiere showing of the new slide program featuring local people on the local scene prepared in cooperation with PETE SANDERS of channel 2 and MRS. ROBERT E. QUINN script writer.

7:15 P.M.—PAUL BOND meets TONY HATFIELD in the 2nd match of the men's first qualifier. (bowling)

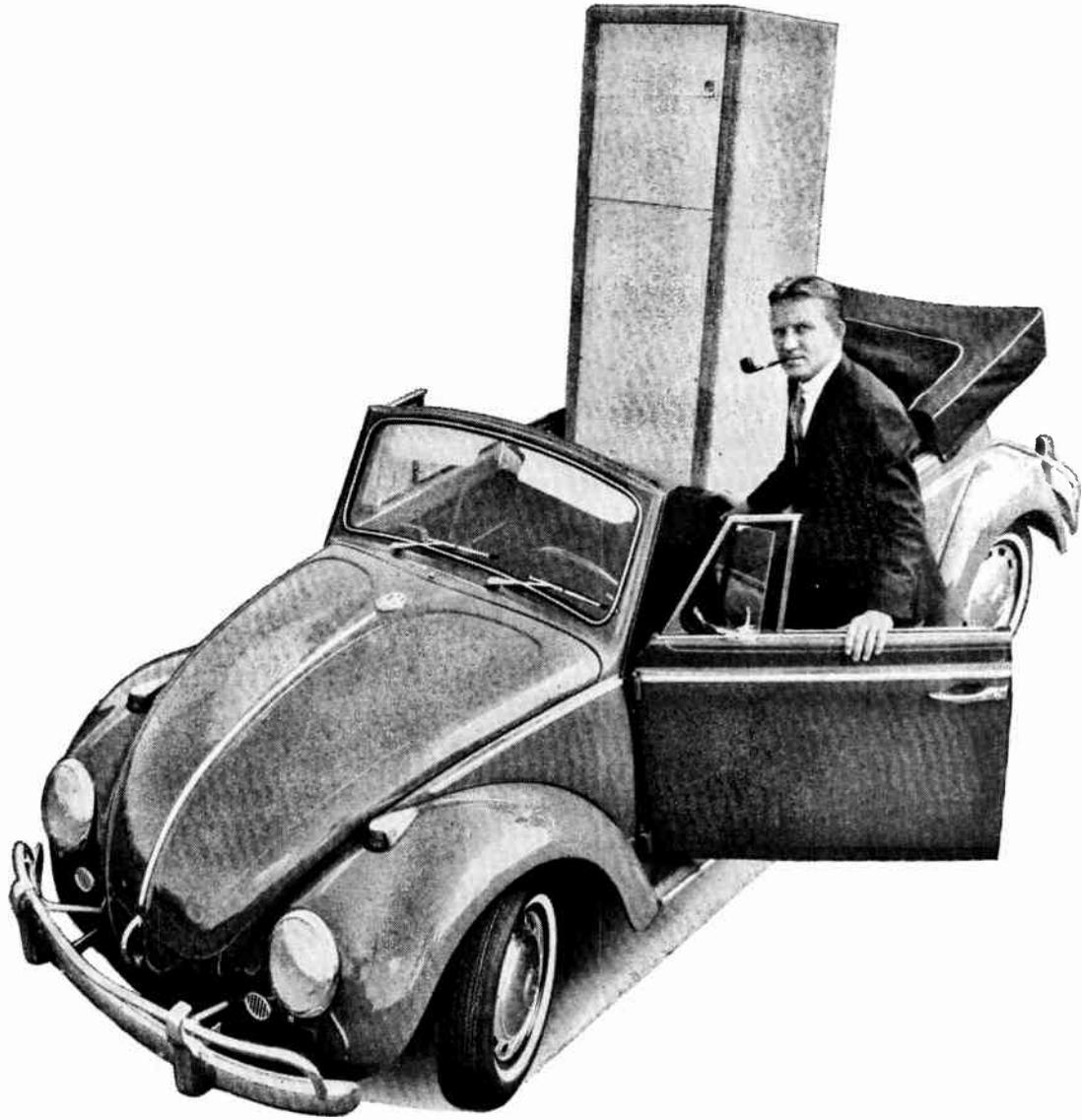
FRIDAY, NOV. 11

5:30 P.M.—A special Veteran's Day Program with DR. KENNON McCORMICK guest of hostess HELEN O'CONNOR

6:30 P.M.—A sparkling holiday fashion preview—special guest will describe holiday fashion trends.

SATURDAY, NOV. 12

8:00 P.M.—17th annual South Central Region Orchestra live from Chillicothe High School.



EMCOR® I—another popular pioneer

EMCOR cabinets started the entire concept of modular enclosure systems, and we've refined them to the point where EMCOR cabinetry is an art... with contemporary, functional design, a tremendous choice of components, careful craftsmanship, and a beautiful choice of colors. You'll appreciate every detail.

And certainly, EMCOR I and the VW have much in common. They're

EMCOR/distinguished cabinetry

both pioneers. They're both highly versatile. They both perform like the leaders they are. And of course, they both offer lots of value for little dollars.

As vital as your instrumentation is, you should find the best cabinets for it. When you need a cabinet, or a system of cabinets, call your local EMCOR Sales and Service Engineer. Or write for our EMCOR I catalog.

Albany: 436-9649; Albuquerque: 265-7766; Alexandria: 836-1800; Atlanta: 939-1674; Binghamton: 723-9661; Bridgeport: 368-4582; Buffalo: 632-2727; Chicago: 676-1100; Cleveland: 442-8080; Dallas: 631-7450; Dayton: 298-7573; Del Mar: 454-2191; Denver: 934-5505; Detroit: 357-3700; Fort Lauderdale: 564-8000; Ft. Walton Beach: 243-6424; Houston: 526-2959; Huntsville: 539-6884; Indianapolis: 356-4249; Kansas City: 444-9494; Los Angeles: 938-2073; Minneapolis: 545-4481; Newport News: 245-8272; N.Y.C. area: 695-0082; Orlando: 425-5505; Palo Alto: 968-8304; Philadelphia: 242-0150; Pittsburgh: 884-5515; Phoenix: 273-1673; St. Louis: 647-4350; Seattle: 762-7800; Tulsa: 742-4657; Utica: 732-3775; Wilmington, Mass.: 944-3930; Winston-Salem: 725-5384.
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Ingersoll Products 1024 West 120th St., Chicago, Illinois 60643

DIVISION OF BORG-WARNER CORPORATION

**electronic
equipment**



Circle 21 on Reader Service Card





**Every week
new G-E live-color
cameras bring
Grand Ole Opry
to millions of homes
all over America.**



**WSM-TV in Nashville
owns four
General Electric PE-250's.**

Grand Ole Opry, for 41 uninterrupted years the country music sound heard 'round the world, is now delighting millions on color television.

For the first time, all the rhythm, character, and brilliance of this truly American musical spectacular are being captured in full color — for 14 major markets — by new G-E PE-250 live-color cameras.

A prestige program — a prestige station. A natural for G-E PE-250's, with their modern four Plumbicon* tube pickup, all-transistorized circuits, compactness, and light weight.

These are just some of the reasons why G-E PE-250's are used for Grand Ole Opry — and why they're on the air for other major stations and group ownerships across the country.

See for yourself. Watch the colorful Grand Ole Opry — in color — this week from Nashville. General Electric Company, Visual Communication Products Department, Electronics Park, Syracuse, New York 13201. GE-39

*Registered Trademark of N. V. Philips' Gloeilampenfabrieken of The Netherlands.

GENERAL  ELECTRIC

WHY DOES USE **AMPEX** TRANSISTORIZED MODULATORS IN THEIR UHF KLYSTRON TRANSMITTERS?



The common complaint that we have heard about television transmitters over the years is that visual modulators are poorly designed, do not include all of the necessary functions or just do not perform well. Since TA has built and installed amplifiers which have been used with other manufacturers' drivers and modulators, we have become very much aware of the shortcomings of existing designs.

Consequently, when we began design work on our transistorized driver a year ago, we studied the problem of modulator design in great detail. The first step was to review the state of the art of similar equipment. Our conclusion was that much sophistication already existed in transistorized equipment similar to visual modulators. Specifically, we studied several stab amp and processing amplifier units available commercially.

Our comprehensive tests showed that the Ampex processing amplifier normally used in VTR machines and which is recognized by industry engineers as the ultimate in processing amplifier design, contained the essential qualities for a high performance modulator.

Ampex engineers then repackaged the processing amplifier for use as a modulator for TA. The result is truly a breakthrough inasmuch as the modulator is entirely transistorized and contains all of the functions of the processing amplifier such as control of burst gain, sync height, pedestal level, video gain and reconstructed sync. In addition, the unit includes all of the transmission corrective circuitry required of a good modulator. All of these features are remote controlled in TA transmitters when required.

The inclusion of Ampex modulators in TA transmission systems has resulted in the finest television transmitter available today.

We are proud that we lead the field with the first transistorized driver and doubly proud that we use the ultimate in modulator design—the Ampex transistorized modulator.

***For more information
write today to:***

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P.O. BOX 215 • FEEDING HILLS • MASSACHUSETTS • 01030
AREA CODE 413-733-2284



By Robert R. Harris

WFUN Miami consistently uses a variety of promotions to build audience and sales.

WFUN RADIO BELIEVES that its primary job is to serve the needs and public interest of the community. By skillfully blending popular music and pleasing personalities, WFUN has accomplished this necessary goal. The basic objective is to entertain and inform the million-plus residents of South Florida and the nearby Bahamas Islands, 24 hr a day, 7 days a week.

Programming

To amuse and enlighten its audience, WFUN employs top personalities and production people. Poise, good taste, showmanship, and sales are the key factors which have made top-rated WFUN a success. As one of the most listened to radio stations in the Metropolitan Miami market, WFUN plays music which most Miamians want to hear—based on daily surveys of record stores, coin music operators, and listeners, from survey results, tabulated by WFUN's music department, a weekly "top 79" list of records is compiled and published on a pocket-size card. 15,000 copies are printed and distributed each week to area record, clothing, and department stores. Annual cost for printing and distributing the survey is over \$8000. The front of the survey card carries a picture of a different WFUN deejay each week; the back of the survey card, when

Mr. Harris is promotion director, WFUN Miami, Fla.

folded, is used as a merchandising aid for station clients.

News

WFUN programming features "20-20 News," a 2-minute news-and-sportscast at 20 minutes after every hour, and a comprehensive 5-minute newscast at 20 minutes before every hour. "20-20 News" is effective in reaching thousands of listeners who have to be somewhere on the hour or half hour. What office worker can listen to an 8:55 or 9:00 A.M. newscast if he has to be at work at 9:00? In addition, the term "20-20 News" is easily remembered and suggests vision.

WFUN news strives to inform. Accuracy is first in importance, followed by speed. The facts of each story are presented without boring the listener with unnecessary wordiness. If WFUN can be first with a story, we will be; however, we never sacrifice accuracy for a scoop. The WFUN news department augments its stories with the sounds and voices of persons making the news. We feel that listeners rather hear the voice of the governor than hear the voice of a newsman reporting about the governor.

WFUN News is assisted by the most modern electronic equipment available today. Battery-operated, broadcast-quality tape recorders help us cover news where and when it is happening. WFUN also employs wireless microphones, two-way fm radio equipment, mobile telephones, and a host of modern studio facilities to help report news. To insure that WFUN will stay on the air in any emergency, a new power generator was installed last year at the studios. This enables the station to stay on the air indefinitely in case of power failure. The generator augments WFUN's all-transistor, battery-powered equipment

previously used in emergencies.

The news department is staffed by three full-time, and two part-time newsmen. The part-time men assist the motorist by broadcasting aerial traffic reports from the station's 1967 Cessna 150 which flies over Dade and Broward counties during morning and afternoon traffic rush hours. These men also assist by covering news conferences, sporting events and other major news developments in the field. WFUN uses two mobile units to keep on top of all South Florida news events. Our news team has received many United Press International awards for the best and fastest news coverage in the state of Florida. In one 16-month period, WFUN won 5 of these awards in statewide competition.

On-The-Scene Promotion

WFUN believes in promotion. Many major promotions are created as public service projects. In this way the station participates in community affairs while lending a helping hand to deserving organizations, and at the same time promotes the station and its personalities.

For the past three years WFUN has been the official station for the annual Dade County Youth Fair. An elaborate broadcast booth was set up at the fair in a special WFUN Pavilion. Plenty of pre-fair promotion by the station, plus live broadcasts from the fair, produced a record attendance of over 130,000 people—more than 35,000 higher than any previous year. As part of its public service Fair participation, WFUN arranged for a major film processor to take color pictures of WFUN deejays and visitors. A free color picture was mailed to each person photographed. In addition to the pictures, WFUN gave away over \$30,000 in prizes

1 Rear window sticker used in Lucky License contest

2 250,000 WFUN bookcovers were distributed in area schools

3 Pressure-sensitive stickers are attached to prizes and other promotional items.

4 WFUN hit list is published weekly.

5 WFUN aircraft reports traffic conditions.

6 Thirty billboards are used year-round to promote station activities, and as client merchandising "pluses."

7 Bus cards are used for station-client promotion.

8 "FUN Club" membership card (maintained but not actively promoted at this time) and several other contest entry forms and promotionals.

9 The WFUN cheerleading squad.

10 Typical WFUN sales promotional piece.

11 Colorful holiday greeting card.

12 Contestants and deejays play "Spin & Win" game at client grand opening.

13 Part of crowd attending Dade County Youth Fair dance.

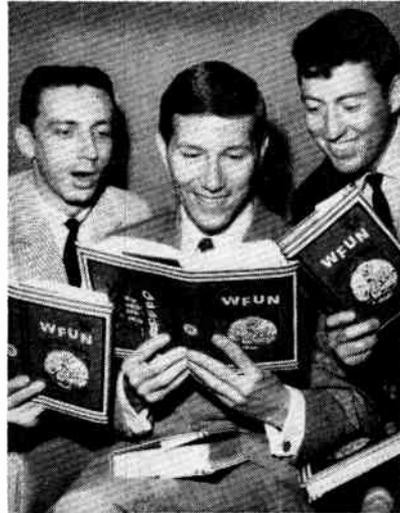
14 Remote broadcast at advertiser grand openings.

15 "Teacher of the week" citation and other award certificates.

16 A lucky station listener won this Amphicar in a contest. Deejays covered S. Florida prior to giveaway to stir interest in the promotion.



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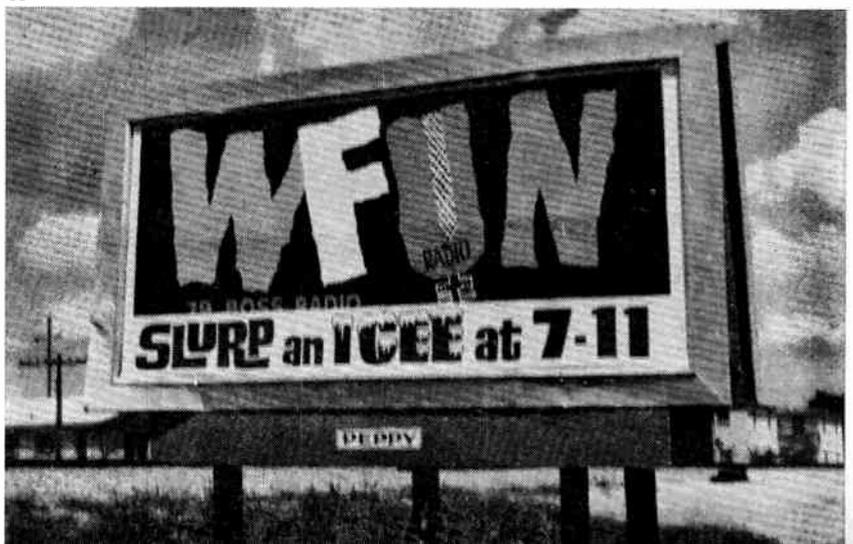


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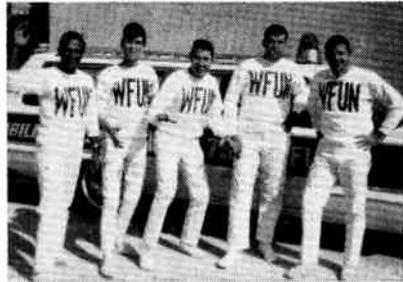




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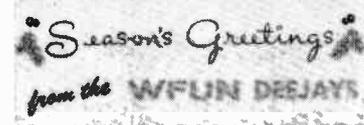
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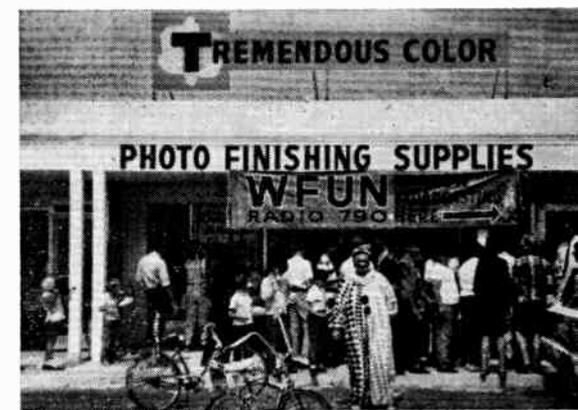
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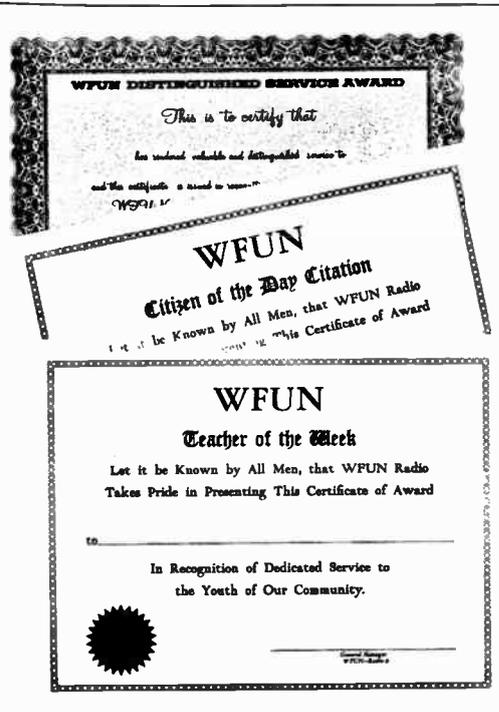
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during the Fair. Contests and games were played continually in the WFUN Pavilion with prizes awarded by station personalities. One of the official attractions of the fair was the nightly dance contest; over 60 dance bands were provided by WFUN for this nightly feature.

Because of our successful performance at the Dade County Youth Fair, WFUN was asked to be the official station this year at the annual "Around The World Fair," sponsored by the patrons committee of the local Museum of Science. This Fair annually draws over 100,000 people and with WFUN's on- and off-air promotion, the crowd will certainly be increased this year. WFUN plans to provide a similar presentation for this Fair as it did for the Youth Fair. A special broadcast pavilion, manned by station deejays, will be set up; dance contests will be held; bands will be provided; and thousands of prizes and gifts will be awarded. In addition, live broadcasts will originate at the fairgrounds.

Another example of WFUN's promotion and programming efforts was staged last November. Boystown of South Florida, a nondenominational home for dependent boys, sponsored an Air Fair. Father Fleming, director of Boystown, asked WFUN to promote the Air Fair and to participate in it. Promote and participate we did! For two weeks prior to the Fair, WFUN made hourly announcements promoting the Fair and the fact that WFUN would be there. We participated in the Air Fair itself by having on display one of our mobile news cruisers and our Cessna 150 aircraft. In addition, there were three WFUN personalities and aerial traffic reporters at the display at all times during the two-day show. They distributed autographed full color pictures of WFUN deejays. At selected times during the Air Fair, the WFUN "Eye-In-The-Sky" airplane would take off and broadcast reports back to the crowd on the ground. The Air Fair attracted over 50,000 paid customers, thanks to WFUN's promotion efforts.

Other WFUN promotions for public service and charity organizations have included a "Wake-A-Thon," with two WFUN deejays "staying awake" to help raise money for a children's hospital, and a "throw-a-pie-at-your-

favorite-WFUN-deejay" promotion that netted several hundred dollars for another charity.

In addition to WFUN's Monday-through-Friday aerial traffic reports, in January the station started a "Weekend Beach Patrol" using the station "Eye-In-The-Sky" plane. These reports, broadcast live from the plane, feature weather and water reports from South Florida area beaches. These reports aid weekend boaters, fishermen, swimmers and surfers in sunny South Florida.

"Award" Promotions

Another important program feature at WFUN is the "Citizen of the Day" award. Each day, WFUN selects an outstanding citizen who has served the community, and then salutes this citizen on the air. In addition, the station sends an impressive citation and letter to each person named.

One station project that involves both on-air programming and promotion is WFUN's team of 160 college, high school and junior high school reporters. Each night during the week student representatives call in reports of school activities. The 60-second reports are broadcast live at specified times during the early evening hours. These reporters are also asked to take surveys and carry out special station projects. In return, WFUN gives them pens, keychains, record albums, and other gifts for being the WFUN reporter in their school. A monthly confidential bulletin is published and sent only to these reporters. The bulletin features exclusive news about the station, its personalities, and record stars.

Station Promotions

In the way of actual station advertising promotion, many different media are used. WFUN has 100 bus benches placed

throughout South Florida promoting the station and special programming features. Also 30 advertising billboards tell the station's story and provide merchandising support for clients. For major station and client promotions, WFUN uses bus card advertising. Display cards, both outside and inside, are placed on almost 100 buses. Cost of this advertising promotion is over \$20,000 annually.

WFUN also uses newspaper advertising, including specially prepared inserts in all area school newspapers. This past Christmas season, WFUN distributed, by mail and personal appearances, 250,000 full-color station Christmas cards. The card pictured the deejays dressed in winter clothing (hard to find in Miami) perched on a sleigh (even harder to find in Miami!). Printing cost alone for these cards was over \$3000. Another form of printed promotion is school bookcovers. This past September, at back-to-school time, WFUN — in conjunction with a station advertiser — distributed 250,000 3-color station bookcovers to students in the WFUN listening area. The printing cost for the bookcovers was approximately \$3500.

WFUN has also published its own newspaper on special occasions. 50,000 copies of the paper were passed out free in the South Florida area. The "WFUN Boss Beat" was written, prepared, and produced entirely by the station. Plans include using the paper on special occasions in the future. Printing and production costs totaled about \$1800 for each issue.

WFUN has also come up with some athletic promotions. For the past three years the station has fielded a softball team composed of deejays and other station employees. The team takes on all

WFUN Key Personnel

Arnold C. Kaufman
Dick Starr
Dave Archard
Phil Hayes
Roy "Red" Nicholson
Robert R. Harris
Ben Farmer
Mike E. Harvey

V. P. and General Manager
V. P. Programming
Operations Manager
News Director
Sales Manager
Promotion Director
Chief Engineer
Music Director

WFUN is a member of the Rounsaville Station Group; other Rounsaville stations are: WCIN Cincinnati, O.; WLOU Louisville, Ky.; WVOL Nashville, Tenn.; WDAE Tampa, Fla.; WYLD New Orleans, La.

comers—usually about 30 games a year—and wins most. For the first time, last September, WFUN provided a cheerleading squad for area schools. We asked for invitations to school athletic games and pep rallies, and WFUN cheerleaders (the deejays) appeared at numerous schools, including a University of Miami football game.

Sales Promotions

In sales promotion, WFUN has produced a brochure detailing the importance and size of the Miami market. Other sales promotion literature shows past station-sponsor promotions to keep clients and prospective clients informed of market and rating figures. WFUN promotion also prepares special presentations for the sales department, outlining major promotions in which the station will work in cooperation with an advertiser. These promotion proposals include the basic ingredients and cost factors for the promotions. Numerous promotions and contests have been run in conjunction with station clients. Some of these include: contests where listeners wrote the sponsor's name on a postal card (the word "Icee" was written over 11,000 times), dances held at the clients place of business, special Father's Day promotions, a "Mister Mystery" promotion (listeners had to guess the identity of an individual from clues given on the air), a "Safe Cracker Contest" (thousands of listeners in shopping centers throughout the area tried their hand at opening a safe transported in the trunk of a car (hourly clues were broadcast on WFUN). These and many other client-station promotions are produced annually for the mutual benefit of both.

Conclusion

WFUN's programming philosophy is to inform and entertain all South Floridians, and to consistently act in the public interest. To accomplish these goals, WFUN promotes the station, its personalities, its clients and the community itself. Station promotion is based on audience involvement, that is, to involve as many people as possible in station activities, either as participators or spectators. Each person who does become "involved" then has a much greater reason to listen to WFUN in the future. ●

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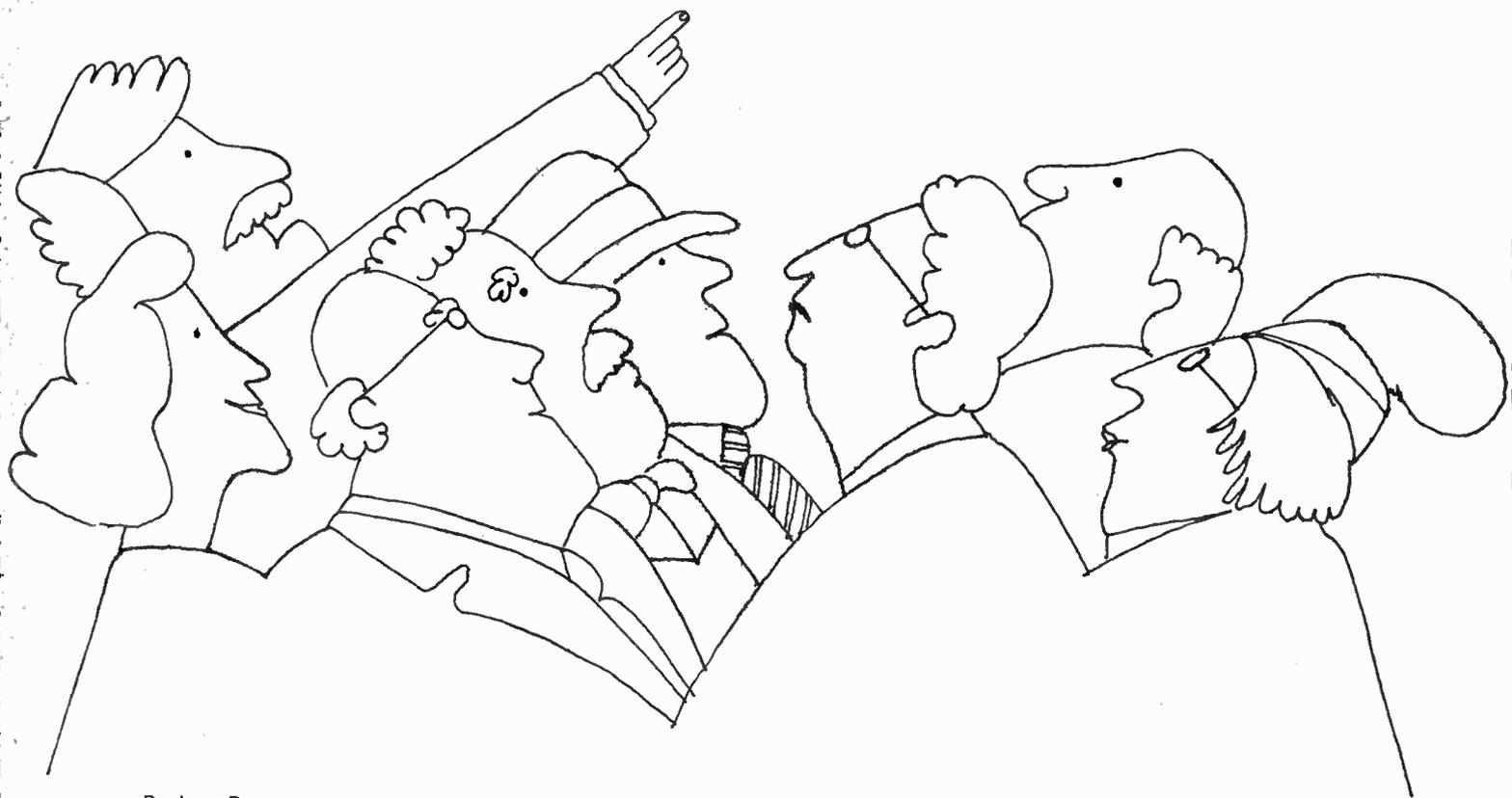
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The "Public Interest" in ETV Programming



By Lou Peneguy

Where does an ETV station look for programming ideas? Here are some answers from a recognized expert.

LIKE ITS COMMERCIAL BROADCASTING BROTHER, an educational TV station is licensed by the FCC to program in the "public interest." During the past 15 years or so, ETV has gone through a rather unsteady growth period, due, perhaps, not only to a lack of financial resources, but to the lack of a solid general concept of what really constitutes ETV programming "in the public interest." As a matter of fact, veteran ETV broadcasters will admit that in the early 1950's, they were quite uncertain what type of program schedule would satisfy FCC regulations.

A Cautious Start

Although 242 noncommercial channels were reserved by the FCC, after its "vhf-uhf freeze"

Mr. Peneguy is Television Information Director, Georgia ETV Network.

was lifted on April 14, 1952, history reports that educators and education-related government agencies were cautious to invest in electronic mass communications. By the spring of 1955, only ten ETV stations were broadcasting. Thereafter, ETV growth seemed to be static. In the prevideotape era, with a small staff and shoestring budgets, few ETV operations had a film department, let alone a kinescope recorder.

In those early years, ETV stations considered every live program a special interest program. Theories then began to turn toward ETV becoming a form of "instant adult education." In a short time, perceptive ETV administrators realized that a college professor, transplanted from his classroom into a TV studio where he stood in front of a blackboard, held little interest for the viewing audience. One of ETV's successful personalities, Dr. Frank Baxter, with National Educational Television's Shakespearean lectures, did not depend upon the blackboard; instead, he used subject-related visuals.

In 1967, there will be 200 ETV stations broadcasting in the U.S., functioning with the gadgetry that commercial TV enjoys. Many ETV systems have a staff of 100 employees. Telecourses have become routine and are usually recorded at everyone's convenience; syndicated fare (see box) has filled late afternoon and evening hours. Today, special interest programming has a fresh meaning for ETV administrators.

ETV—Absence of Prime-Time Syndrome

Obligated to program in the public interest, it is to the advantage of any station to encourage the public to be part of its programming. A lot of public participation programming is usually performed immediately after the birth of each general broadcast medium, whether a-m or fm radio, or commercial TV. As the popularity of each commercial medium increases, however, the sale of time increases—generally at the expense of public interest programming. Network newscasts or special events often fill the FCC "public interest" requirement. The reduction

of this type of program on other broadcast media allows the local ETV station to become the darling of its coverage constituents. Since ETV does not have a prime-time syndrome, each broadcast hour can be assumed as being originated for a special interest audience. Commercial TV, in its struggle to survive, must consider the entertainment value of a large part of its programming if it is to maintain any commercially significant ratings. ETV's goal, on the other hand, is to inform rather than entertain. This does not mean that all informative or educational programs cannot have some entertainment value, or even intent. The basic difference between ETV and commercial TV programming seems to be one of goals, and there are areas—in the "public interest"—where there is some overlap of goals.

With the exception of TV newscasts laced heavily with film clips, the proven way to draw viewers and gain a high rating is to have a program with a unique personality. Even if the personality is a cartoon character, it can lure an audience. Who has learned to prepare a complete supper while watching "French Chef" Julia Childs? Weekly, fans tune-in her half-hour program because she has a personality that seeps into the studio camera and pours out of the home receiver.

Finding "Gratis" Personalities

ETV stations which depend on gratis talent find it hard to come by personalities. The station employing a production staff with a keen sense to recognize local citizens with ability has achieved the first step toward building a talent file. These citizens may never have thought of appearing on TV; however, if the person is an extrovert, only a bit of encouragement is needed to secure his services as host on a telecast. This telecast will either reveal that the citizen should not have been exploited or that he will fill a quality role, and hence receive so many compliments from his friends that he will be waiting to be approached again.

In many instances, these same folks have fascinating pastimes or have friends who have unusual hobbies. The clever producer can discover this in pre-broadcast conversation. One station

created a special interest series after a volunteer guest host (an aircraft industry executive) of a civic club discussion program revealed to the producer that his

free time was spent searching for Indian artifacts. The producer also learned that the man enjoyed his TV exposure, so he encouraged the guest to format a 6-



Creation of controversial, topical questions for discussion by Georgia high school students is the key to Georgia TV producer Dr. John Allen's secret to causing "Sound of Youth" weekly series' popularity. Aired over the Georgia Educational Television Network, it has managed to stir headlines in the press with regularity. Its audience acceptance has stimulated interest in it by TV stations internationally.



When Governor Carl E. Sanders delivered his State-to-the-State Address to the Georgia Legislature, the Georgia State Department of Education Television Services originated a remote from The Capitol Chambers as a current events live special program. It was preceded by a ten minute live and film tour of the historic building. A number of commercial TV stations in the state tapped the Georgia ETV Network remote with the blessing of the State Department of Education officials.

Five Year Need for ETV

"In five years there must be at least 364 broadcasting ETV stations" declares the National Association of Educational Broadcasters, "as compared to the 124 operating today." They will need to be on the air seven days a week. They will need to operate at full power and in color. Many areas also will have two or more complementary ETV stations.

The NAEB believes these stations must be fully interconnected nationwide as well as interconnected on an intrastate and regional basis. This presumes that appropriate national and regional services exist to program these national, regional and state networks, as well as provide programs direct to the stations.

Five categories of types of stations in terms of the facilities each is required to do its job in its area have been delineated by NAEB:

AA—Very large regional and national broadcast and production facility, such as exist in New York, Chicago, Boston, Pittsburgh and Los Angeles, equipped with large multiple-studio TV and film production facilities, mobile units, and all attendant studio and broadcast services. Capable of serving as regional or national production center.

A—Major-city station with complete multiple-studio and mobile unit production capability, although of lesser size than AA, such as Cleveland or Miami.

B—Middle-sized city station with 2-studio and mobile production capability of smaller size than A, such as Richmond, Virginia or Madison, Wisconsin.

C—Small city station with basic 1-studio production capability, but without mobile unit, such as Duluth, Minnesota, or Urbana, Illinois.

D—Network receiving and rebroadcasting station without production facilities except for perhaps future minimal 1-camera capability, equipped with minimum videotape and film playback capability, such as Presque Isle, Maine or Redding, California.

Here by categories, is the total of the U.S. stations the NAEB envisions in 5 years, achieving an estimated total coverage above 90 percent of the U.S. population.

Category	AA	A	B	C	D	Total
Now on the air	12	34	27	24	21	118
Needed in 5 years	0	24	25	54	143	246
Total	12	58	52	78	164	364

The construction cost for the 246 new facilities is estimated at \$246,750,000 (average cost of an A station is \$2 million; a D station is \$750,000). Another \$20,687,500 is needed to expand existing facilities and to replace obsolete equipment over 5 years old.

To make intrastate connection, not already in existence five years hence, an additional \$25,000,000 would be needed. The NAEB assumes no capital outlay for national or interstate connection, expecting satellite or microwave relay nets to be in existence for lease by ETV stations.

Operating funds pose more of a problem, NAEB finds. In 1964, ETV stations spent a total of about \$43,000,000. The total annual operating budget for the 364 stations expected on the air in five years is estimated to be \$153,000,000. On top of this is an additional \$125,000,000 needed for national and regional program service. Adding interconnection costs of \$7,200,000, total operating funds needed for the proposed ETV system came to \$286,200,000.

NAEB envisions continued and increased matching dollars by ETV Facilities Funds Acts to build the ETV network. By June 1967 ETV Facilities Funds of \$32 million will be exhausted bringing the total number of stations to 175. To date, local funds, Ford Foundation funds and ETV Facilities funds totalling about \$60 million have been used to buy equipment for the 124 stations now on the air.

part program about his hobby. Mail to the series uncorked news that hundreds of people within the ETV coverage area were likewise uncovering Indian relics in their free hours. This response so pleased the talent that he extended his cooperation in the weekly series for three and a half years! At his own expense, he brought experts to the station from around the region to display and narrate the history of their finds. Wrapped in his subject his on-camera personality stimulated "nondiggers" into becoming faithful viewers.

Drawn from the file of available possible hosts for a civic-so-

cial club series, another talent dropped the word that his hobby was travelling with spelunkers to photograph their discoveries. He had a collection of 2,400 slides. On request he agreed to develop a series. The "civic-social series" is a special interest series that could run weekly 52 times a year. Every club of this kind in the locality is engaged in community activities. Club members are eager to describe their efforts to fellow residents. Unless assigned to a producer who has a rapport with the assortment of people who agree to represent their organization on TV, this variety of program can be dull. This type

program requires a producer who can sit with participants weeks before the air date to bore into the purpose and accomplishments of the group. During this conversation, the producer should be able to spot a controversial aspect of the organization which could be incorporated into the program's opener. Without a catchy start, the audience will likely tune away. One of the assets of this style of telecast is that it brings individuals from all strata of the community into the studio. As a result, viewers who may have never tuned in the local ETV outlet will do so to see their comrades.

A series of teenagers' discussions, aired over the Georgia ETV network, has gained international fame because its producer knew how to select talent and topics which induced youngsters and adults to tune in the weekly programs. On the December 1966, "Sound of Youth" program were several inmates of the Georgia correction institute for youthful offenders. The boys alleged that the institute had need for more guards, and that there were charges of brutality. They also reported that there was fighting among the inmates, poor food, and an isolation cell for incorrigibles. Subsequently, two state senators made a surprise visit to the institute where they found an inadequate and underpaid staff. Newspaper headlines carried the story and called for a reform.

ETV stations across the nation have made headlines by engaging in special interest telecasts such as the meeting of the school board, proceedings of the "town hall," or the school superintendent addressing principals on a regular basis.

Cooperation with other Media

Harmony between local ETV station and area commercial TV officials can be achieved if the ETV station will notify the commercial stations when it plans to originate a civic special interest remote. Reference here, for example, is to the swearing-in of the Mayor, an address of note to the state legislature by the Governor, or other happenings which would be of historical or current events nature. If an ETV station is handling this kind of effort, commercial stations can continue their regular schedule and only cut in for the portion of the event they want to air or tape for delay. In return, they will promote the origination as having been done by the ETV outlet.

General interest publications (daily metropolitan and weekly-suburban or community newspapers, the statewide trade press, and state government agency news letters) have gems of ideas around which special interest programs may be developed. A special interest series was developed as a result of editorials in a South Carolina newspaper which proclaimed that certain state laws hampered policemen from per-

Programming In General

ETV stations must determine what type programming will best represent community interest. This can be accomplished, in some respects, by using the same methods employed by commercial broadcasters. Most ETV stations, however, will work closely with local, county, and state boards of education. Most private and state colleges and universities cooperate extensively in ETV projects, and most can be of inestimable value as a source of program material as well as in an advisory capacity.

ETV networks (microwave or landline connection is required, of course) in several states are valuable program sources, also the National Educational Television network (NET). In addition, there are several instructional (ITV) program syndicates: for example, the Great Plains Instructional Television Library, the Northeastern Instructional Television Library, and the Educational Television Station program service (ETS). Many governmental (state and federal) agencies, industrial firms, etc., offer a wealth of documentary material, in many cases, to fill-in or round-out an ETV schedule. Also, many commercial program syndicators offer special rates to ETV stations, at least on some program types.

Continuous TV Courses For Business And Industry

Eleven courses will be offered to business and industry in South Carolina by the end of May, 1967. An additional schedule will commence in September of 1967. This is a step up from the five-course offering in the Fall of 1966.

Dates	Course Title	Instructor
Jan. 9-Feb. 27	Supervisory Leadership	Dr. George D. Heaton
Jan. 10-Feb. 14	Management by Objectives	Dr. George S. Odiorne
April 17-May 22	Management by Objectives	Dr. George S. Odiorne
Jan. 11-Feb. 15	Understanding Government	L. C. Michelin
Jan. 12-Feb. 23	Decision Making Techniques	L. C. Michelin
Feb. 21-April 11	Modern Industrial Management	L. C. Michelin
March 1-April 12	Understanding Politics	L. C. Michelin
March 2-April 20	Controlling Turnover and Absenteeism	Dr. George D. Heaton
March 6-April 10	Developing Communication Skills	Malcolm E. Shaw
April 18-May 23	Developing Sales Skills	not assigned
April 19-May 24	J.I.T.	not assigned

On the job training programs have been offered over ETV by South Carolina's Educational Resources Foundation since April of 1964.

The Alabama ETV network is also offering economic and industrial management courses, starting in January 1967. L. C. Michelin, nationally known economist also on the S.C. network, is offering an eleven week telecourse on Exploring Basic Economics and Modern Industrial Management. Courses are co-sponsored by the Alabama Chamber of Commerce.

Initial & Operating Costs

Station startup requires an initial investment of \$200,000-plus, usually; a building to house studio and transmitter facilities can run another \$50,000 or more. (Microwave gear for networking and other auxiliary equipment for remotes, etc., is not included.)

Monthly operating costs can run in the neighborhood of \$20,000 for a 10-man production staff and production costs. If any number of remote originations are contemplated, costs will probably be higher.

On-camera talent, other than staff personnel, usually is obtained on a gratis basis. Where finances permit, an ETV station may offer at least a token payment toward defrayment of incurred expenses. Local program production costs closely approximate those of commercial TV, except in the areas of talent and announcement production.

forming their duty. Among other things, policemen who felt that the laws were unjust were resigning, causing a state law enforcement personnel shortage.

The ETV outlet encouraged all major police agencies, and their related organizations and associations in the state, to tell their members about the proposed program. They agreed to cooperate with it. From that group, ETV officials developed an advisory committee which decided what approach should be taken. From this committee, 70 discussion leaders were selected from outstanding police officers in the field. They were shown what could be produced on ETV for their project. Printed guides for discussion leaders, similar to classroom teacher guides, were created, complete with the types of questions that might arise in an after-telecourse discussion and suggestions on how to deal with such questions. Manuals were developed so students would have a record of the program content and a future reference to the TV program. Through this approach, practically every police officer in the state was "involved." Beyond that, the ETV center developed "speaking kits" for discussion leaders to give them background material that they might use as they appeared before civic clubs. A great many of them have been called before civic clubs to talk about this program.

This series was a real shot in the arm for law officers as it focused attention on law enforcement and its needs. The first programs dealt with laws in the



Deputy Sheriff David Knight of Bennettsville, S. C. leads officers in a discussion following televised portion of a training session.

state that hampered law enforcement. The laws mentioned on the program were changed. The real secret was that people who were to be served were brought into it at the beginning; they were made a part of it and were made to feel comfortable. They knew what was coming. Before the project was over ETV officials received an initial sum of \$10,000 from the State Budget and Control Board. In 1966 the State Law Enforcement Division received a \$180,700 grant under the Law Enforcement Assistance Act of 1965 to defray expenses of the 20-program, two-year period.

Local Professional and Industrial Cooperation

A producer's association with the local public relations and/or the industrial editors council frequently gives his observant eye special interest program ideas. An ETV series on management training was developed by a sharp-sensed producer after hearing gripes from a PR man that it was difficult to stimulate business executives to attend night and weekend refresher training meetings. A state professional nurse's magazine revealed the plight of nurses in small communities who are trying to stay abreast of medical advances. The nature of their training usually involves demonstrations, so it was logical that an ETV series was proposed exclusively for nurses. A producer was assigned to devise a weekly training series in cooperation with a land-grant college and the state nursing agency. It proved quite successful.

The American Cancer Society, Georgia Div., was alarmed when a study of high school text books revealed a lack of attention to alerting youngsters about cancer. This illness takes 5,000 lives within Georgia each year. In this case, its PR man asked an ETV official for advice on how to inform students about cancer. The Georgia ETV Network executive assigned its Utilization Wing and a TV producer to it. In December a 6-part series directed to science and health classroom teachers was aired after school each week on the Network.

Adult Education Programming

A widely publicized special interest series used ETV to de-

crease adult illiteracy in Alabama. It began when Mr. Sam Israel, a prominent businessman in Florence, Alabama, read that Dr. Frank Laubach had spent his life conducting basic adult literacy classes in numerous foreign lands. His procedure involves the familiarity of a picture of an object which is superimposed by the first letter of a noun which describes the object. This causes the "student" to connect the letter with the object (i.e., the picture of a drawn bird would be altered to look like the letter "b"). At that time, Dr. Laubach's technique was being tried as an experiment over the Memphis ETV station. In a newspaper article, Mr. Israel read of the projected potential of the Alabama ETV Network. He contacted Network officials and suggested that the experiment be staged on a statewide basis. This was done, and it was a dismal failure. Being non-readers in the first place, adults who could gain from the series never understood the press releases. Further, it was discovered that unless illiterates are encouraged to continue with their training, their interest in it wanes.

The Alabama Federation of Women's Clubs was approached by ETV officials with an invitation to use the facilities of the Alabama Network and work with representatives of Florence State College to pioneer a statewide campaign toward the elimination of adult illiteracy in conjunction with the TV series. They accepted the challenge and helped finance the origination of a new series from the Birmingham ETV studio. Each AFWC chapter organized local training centers (for the most part these were in schools or churches) where illiterates came to learn basic English. Through the club's publicity efforts, announcements were made by classroom teachers who asked their students to carry the message home, by ministers before their sermons, and by door-to-door personal contact. Volunteer teachers were sought by the AFWC to be in the centers during the telecourse to answer "students' " questions and to encourage enrollees to exercise what they had learned that night. The U.S. Office of Education became interested in the project. It awarded a grant of \$66,000 to finance a study of its effectiveness. The survey revealed that among the

GEORGIA: ETV LEADER

Georgia surged into national prominence during 1966 because of its mushrooming state-owned educational television network. In 1966, the state developed the nation's largest interconnected ETV system to be operated by a state department of education. Its stations serve Waycross, Columbus-Warm Springs, Augusta-Wrens, and Savannah-Pembroke areas.

On January 2, 1967 programming service started on its newest station, WABW-TV, Pelham-Albany. Shortly to be added to its network stations are Chatsworth-Dalton, Macon-Cochran and Dawson sections. An affiliate is WGTV, the University of Georgia station, which serves the Athens-Atlanta location.

Daytime programs (started at 8 A.M.) on the network primarily are originated by the State Department of Education from its Atlanta Production Center. Evening telecasts are provided by the University of Georgia Center for Continuing Education Athens studio until sign off at 10:30 P.M.

Student viewers numbering 435,292 per week tuned to the network's telecourses.

Among the programs were:

- Governor's address to the legislature.
- Music teacher's training series, later sold to a national distribution firm.
- First National Conference for State Department of Education Personnel on ETV.
- Mathematics course for teachers, which carries University credit.
- State Chamber of Commerce broadcast.

Summer 1966 was the first season afternoon ETV programs were offered. In former years the Georgia Network stations were only programmed in the evening.

Ten Million for ETV Programming

The Ford Foundation is making \$10 million available to Columbia University to demonstrate the power of ETV when quality programs are aired over ETV nets. Commencing in the Fall of 1967, Columbia's Graduate School of Journalism will present Sunday evening programs of 2 to 3 hours in length.

Great issues of the day in various fields will be examined in depth. "Not padded-out documentary, but not superficial commentary either" is the way a Ford spokesman put it. The program will be carried on the 125 ETV stations operating. If there isn't an ETV station in the locality, the program will be offered to local commercial stations—if they want to broadcast without time for commercials.

Av Westin, former executive director of CBS News, will handle the Columbia program. Talent will be drawn from across the country and not solely from Columbia.

How 8 Representative U.S. School Districts Bought And Use 2500-MHz ITV Systems

A new 24-page brochure detailing how eight U.S. School Systems have acquired and utilize 2500-MHz instructional television networks has been published by Micro-Link/Varian. Manpower requirements and general guidelines for educators and administrators contemplating 2500-MHz facilities under ESEA or other financing are included.

Circle 145 on Reader Service Card

"students" were the mayor of a small town, many businessmen, foremen, and several persons over age 70 who enrolled so they could learn to read the Bible. A dozen who learned to read and write sent Christmas cards with a few simple appreciative words to the Governor. In one community, a retired school teacher volunteered to help in a center. She assisted half a hundred to read. In tribute to her, ETV officials worked with a commercial radio station in her town to broadcast a day in her honor with thank you announcements made by her students (sans identification) scheduled throughout their day. Impressed by the project, the General Federation of Women's Clubs proclaimed the Alabama unit had the best project of the year, and it established a permanent international department to encourage adult literacy worldwide.

Ever so often, special interest program material drifts into the studio. It takes only an open-eyed producer to recognize it. Recently, the provocative author, Father Malcom Boyd, was in Atlanta to exchange his religious ideas with students from nine theological schools. Local ETV officials were asked if their studio could be used as a meeting hall for his discussion. The answer was "yes" if Father Boyd would agree to permit the studio to videotape the verbal exchange. He agreed. The by-play seemed exciting to the taping producer. It was edited and aired. Newspaper reviews praised the presentation and call for a rerun.

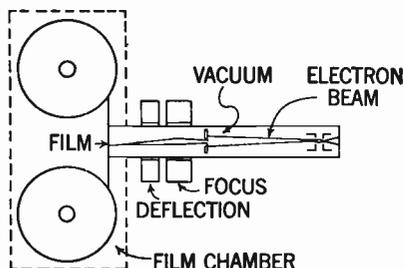
Conclusion

This article, then, suggests that, if an ETV operation plans to delve into special interest programming, it should (1) engage producers who are active or interested in local, daily public affairs; (2) develop a personality file of local citizens who can assist in programming; and, (3) discover what its community needs are, and investigate how its programming can satisfy them. With these items checked, the station will probably discover it has more special interest program material than it can handle. At the same time, potential viewers in its coverage area will increasingly feel as if they are an integral part of the station's operation.

BROADCAST EQUIPMENT

Improved Method of Kinescoping

By eliminating the conventional camera lens, the CRT phosphor screen, and the glass mask, 3M Co., of St. Paul, Minn., has developed an improved method of reproducing TV images on 16mm film. The process, called electron beam recording, directly exposes film inside a vacuum chamber to electrons from the open end of an electron gun which normally would fluoresce the phosphor

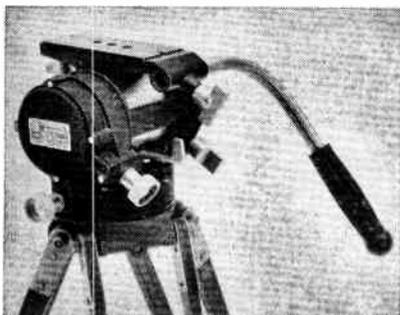


coating on a CRT screen. Designated the EBR 100, the unit weighs 1000 lb and has a 16mm film capacity of 1200 ft. Results indicate that the EBR 100 is able to process film six times faster than conventional kinescoping methods, and the resulting pictures have higher resolution, less graininess and noise, and brighter images. The EBR 100 system is priced in the \$60,000 range.

Circle 99 on Reader Service Card

Lightweight Camera Head Takes Weights Of 50 Lb

Introduced by O'Connor Engineering Laboratories of Pasadena, Cal., a 7-lb fluid camera

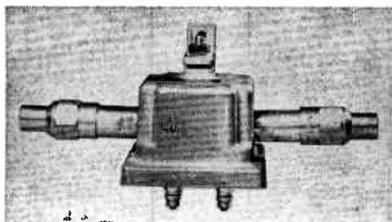


head is made principally of magnesium alloy, tilts 45° up and down, and pans 360°. Both pan and tilt drags are indefinitely adjustable. A torque rod, capable of providing up to 200 in. lb is provided for counterbalancing camera tilt. Head has snap-action camera platform.

Circle 91 on Reader Service Card

CATV Tap Eliminates Reflections

Vu-Sharp directional CATV taps, made by Craftsman Electronic Products, Inc. of Manlius, N. Y., are available in attenuations ranging from 6 to 34 dB. Taps are said to eliminate reflections caused by TV-set feedback and

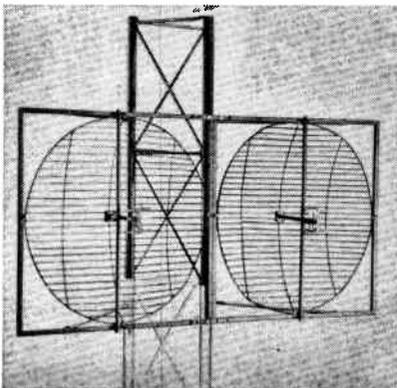


cable mismatch. Modular in design, Vu-Sharp taps are rfi shielded and moisture resistant. Insertion loss on 18-dB model is less than 0.3 dB. Cost of standard model is \$7.90; outlet plates range in price from \$1.58 to \$5.80.

Circle 79 on Reader Service Card

UHF CATV Antennas Have Small Wind Load

Offering up to 1/10th the wind resistance of solid-surface dishes of equivalent gain, Parabeam

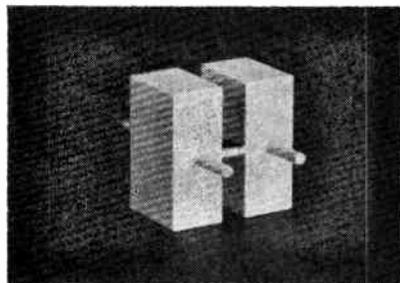


CATV head end antennas made by Jerrold Electronics of Philadelphia, Pa., allow high tower elevations where uhf signals usually are stronger and more uniform. Parabeam antennas are available for uhf channels 14 through 83, each with direct coaxial input. Prices range from \$180 for the Single 6-ft model to \$780 for the Quad 6-ft configuration.

Circle 80 on Reader Service Card

Versatile Rejection Filter Eliminates Power Line Hum

Model Twintron filter, made by H. B. Engineering Corp. of Silver Spring, Md., provides 60 dB of attenuation at 60 Hz with a 3-dB bandwidth of 0.11 Hz. The electromechanical resonator is symmetrical about a binodal axis, making it impervious to effects of position, shock, and acceleration. Models are available in low and high impedance types for generation, selection, or rejection of frequencies from less than 1 Hz to 20 kHz with Q up to 8000. Filter has provision for mechanical and electrical adjustments: ten percent and one percent of



center frequency, respectively. Prices range from \$5 to \$15 each, depending on Q, stability, insertion loss requirements, and quantity ordered.

Circle 81 on Reader Service Card

Portable CATV System Analyzer

Measuring cable impedance, return loss, insertion loss and gain, Model 990 solid-state CATV System Analyzer, made by Anaconda Astrodata of Anaheim, Cal., contains a flat high-level sweep generator, rf bridge, coaxial

Announcing... for color and black and white, the new family of RCA image orthicons with a *big difference here* that *shows up big here*

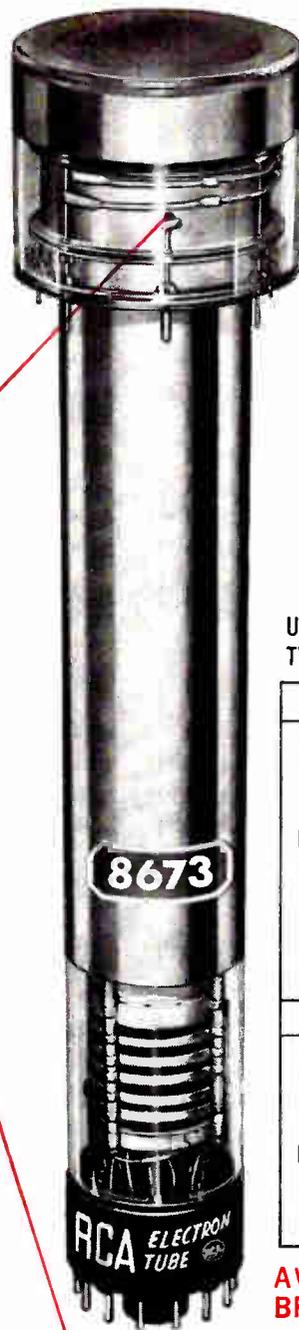
Now RCA brings you the "BIALKALI PHOTOCATHODE" in the new RCA-8673 and -8674 Image Orthicons. This major engineering innovation has greatly improved compatibility with its non-stick target, maintaining resolution and sensitivity over an extended tube lifetime and improving performance of *existing* color or black-and-white cameras. A simple change in a resistor chain provides proper voltages for a trio of these new Bialkali Photocathode Tubes. Wide-range, the 8673 and 8674 fit spectral requirements of all three channels... eliminating the need for another tube type for the blue channel.

Another big difference: the re-designed image section provides reduced distortion and freedom from "ghosts." These new tubes are available singly or as matched sets—a trio of 8673/S or 8674/S types for color service... types 8673 and 8674 for black and white. Main construction difference is in the target-to-mesh spacing. The closer-spaced 8673 enhances S/N ratio for quality performance under sufficient illumination. The 8674 has greater sensitivity under limited illumination. For complete information about the new RCA Bialkali Photocathode Image Orthicons, ask your RCA Broadcast Tube Distributor.

RCA Electronic Components and Devices, Harrison, N.J.



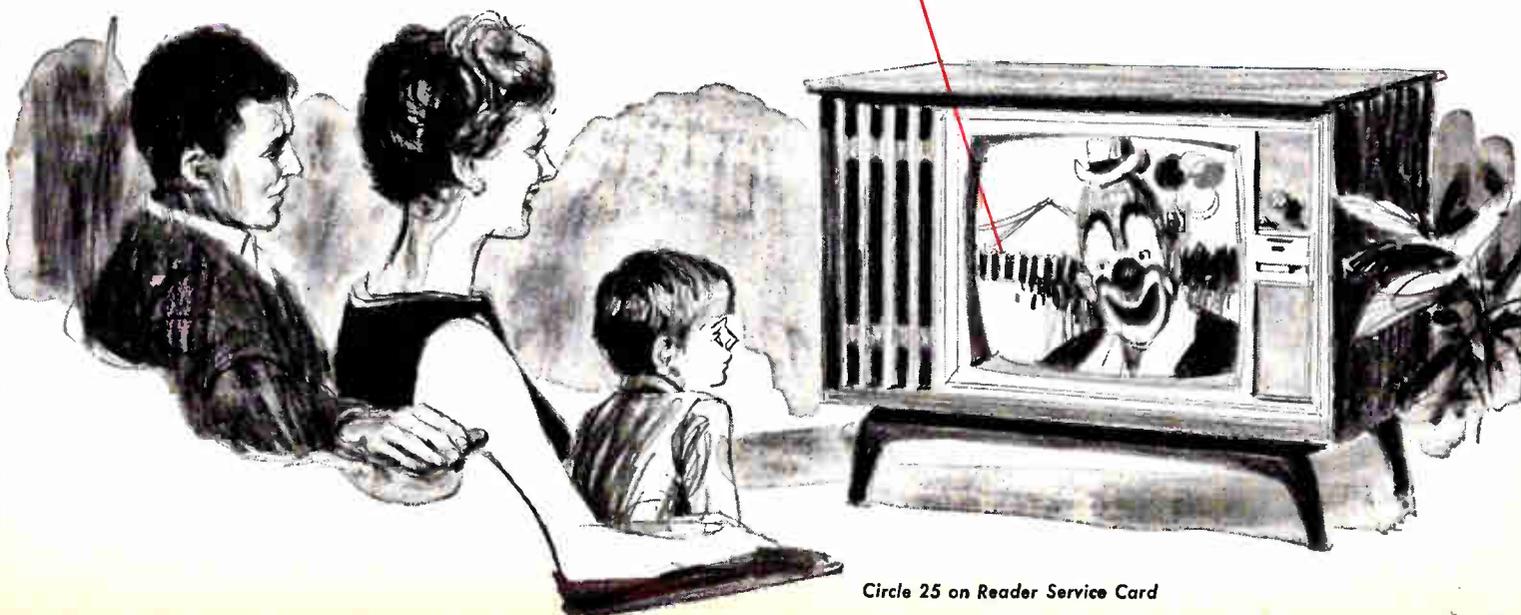
The Most Trusted Name in Electronics



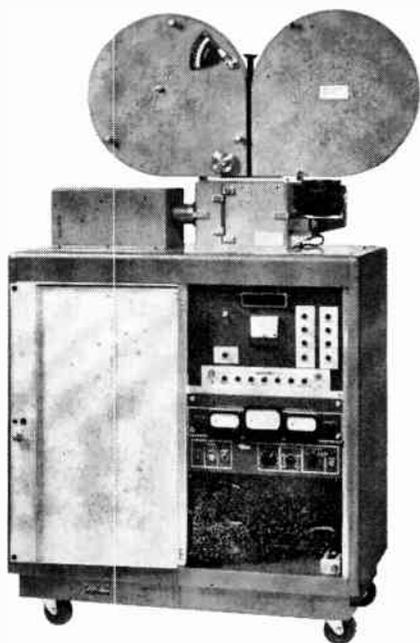
USE THIS CHART TO SELECT REPLACEMENT TYPES FOR THE TUBES YOU ARE NOW USING

UNDER SUFFICIENT LIGHTING LEVELS	
For color pick-up, If you're now using... You can replace with:	
4513/S 7513/S	8673/S
For black & white pick-up, If you're now using... You can replace with:	
4513 7513 7513/L 8093A 8093A/L	8673
UNDER LIMITED LIGHTING LEVELS	
For color pick-up, If you're now using... You can replace with:	
4415S 4416S	8674S
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7293A 7293A/L	8674

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THE PALMER TELEVISION FILM RECORDER



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In combination with the easily maintained, stabilized Conrac photographic monitor and the Modulite galvanometer, the unit is designed to record picture and sound on a single piece of film with a fidelity comparable to that obtained in conventional motion picture production.

COLOR:

The camera may be used to record color from any good color monitor. The patented shutter automatically compensates for signal and line phase differences. No complicated interlocking circuits are required.

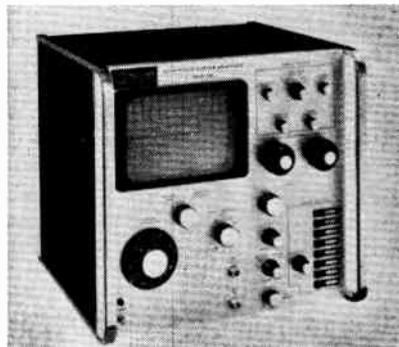
W. A. PALMER FILMS, INC.

611 HOWARD STREET
SAN FRANCISCO, CALIF. 94105
TELEPHONE (415) 986-5961



Circle 26 on Reader Service Card

switches, and attenuators. Unit has variable sweep width, and is capable of performing sweep frequency measurements from 10 to 230 MHz. Center frequency bandwidth is electronically controlled and continuously variable from 200 kHz to 220 MHz. Sweep modes include line frequency, X-Y recorder output from 0.5 to 40



Hz, manual, and external sweep rate. Unit has crystal controlled marker generators for frequency identification; provision is made for eight single-frequency plug-in markers.

Circle 82 on Reader Service Card

Flexible Color Video Encoder

Model 9830-071 solid-state color video encoder, made by Cohu Electronics, Inc. of San Diego, Cal., is compatible with three- or four-tube color cameras. Features include integral full and NTSC split bar generator luminance channel aperture correction, notch filter, 370°-subcarrier phase shifter, and an integral burst-flag generator. A front panel switch permits routing of the green input to the luminance

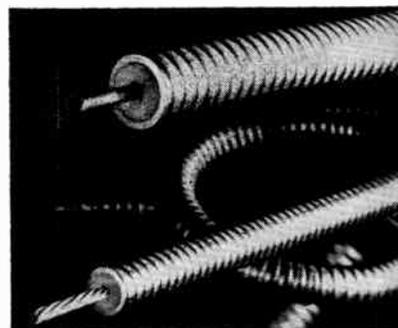


channel, providing compatible monochrome outputs which may be used in the event of red or blue signal failure. Encoder requires 1¾ in. of vertical space in standard 19-in. rack. Price is \$3500.

Circle 84 on Reader Service Card

Corrugated Cable Stronger, More Flexible

Available in ODs of 0.325 and 0.500 in. Coro-Flex corrugated coaxial cable, manufactured by Amphenol Corp. of Chicago, Ill., is said to be completely moisture proof, 30-percent stronger, and



50-percent more flexible than conventional noncorrugated coaxial cables. Coro-Flex with OD of 0.500 in takes bends as small as 2½ in. dia without electrical or mechanical discontinuities. Cable terminates with type F connectors and has impedance of 75 ohms. The smaller 0.325-in. OD cable is electrically similar to RG87A/U and has 50 ohms nominal impedance. Smaller cable terminates with type N connectors.

Circle 83 on Reader Service Card

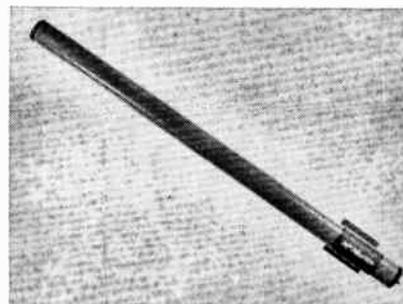
Midget TV Monitor Weights 2¾ Lb

Model 0827 video monitor, made by Lear Siegler, Inc. of Anaheim, Cal., produces an instantaneous 4-in. picture from solid-state circuit with input voltages of 12, 28 dc, or 117 ac. Input power ranges according to input voltage from 3 to 7 W. Resolution is 250 lines horizontal, 350 vertical. Video input impedance has high-impedance bridging and can be terminated by an internal 75-ohm load through a switch located on rear panel. Monitor measures 6 in. wide × 3 in. high × 6.7 in. deep and weighs 2¾ lb. Unit is priced at \$350.

Circle 85 on Reader Service Card

Antenna/Amplifier For SCA Operators

McMartin Industries, Inc. of Omaha, Nebr. now is marketing a cylindrical antenna designed primarily for SCA operators which is aligned on any specified frequency between 88 and 108 MHz. Model A-72-PA is encased

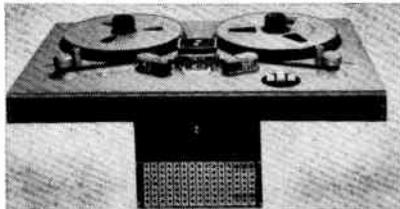


in a gray vinyl covering measuring 22½ in. long by 1½ in. dia, and has a 12-V solid-state preamplifier built into its base. The antenna has an 8-dB gain and may be operated in vertical, horizontal, or oblique positions. Price is \$39.95.

Circle 86 on Reader Service Card

Tape Duplicator Operates At Speeds To 240 In./s

Gauss Electrophysics, Inc. of Santa Monica, Cal. has introduced Model G-12 tape duplicating system, capable of recording and duplicating at speeds of 120 and 240 in./s. The G-12, with solid-state plug-in modules, uses focused gap field rf bias — a feature said to improve tape quality by closely approximating the



ideal anhysteretic magnetic recording process. A tight loop dual capstan drive system holds wow and flutter within 0.25% peak-to-peak from 0.1 to 10,000 Hz. Several configurations are available from 2 to 8 track ¼-in. and 0.150-in. (3.8mm) tapes. In rewind fast forward mode duplicator loads a 2400-ft NAB metal or plastic reel in 80's.

Circle 87 on Reader Service Card

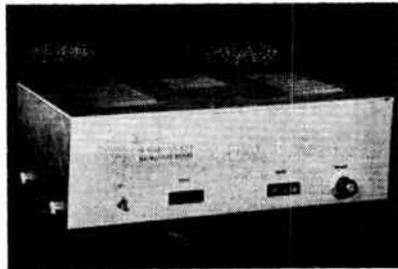
Orthicon Tube Has Bialkali Photocathode

RCA of Lancaster, Pa. recently made available the 8685 2-in. image orthicon tube for portable and broadcast applications. The tube incorporates a number of improvements including a bialkali photocathode, long-life target assembly, and a low-power heater requiring only 0.6 W. The bialkali photocathode has high sensitivity over visible spectrum, but no response to infrared. The elimination of infrared is said to permit realistic tonal gradations of gray-scale colors, not possible when color masking due to infrared sensitivity occurs.

Circle 88 on Reader Service Card

Solid-State SCA Multiplex Tuner Has Front End Fets

Recently introduced by Browning Laboratories, Inc. of Laconia, N.H., the ST-300 all silicon solid-



state SCA multiplex tuner features field-effect transistors in the front end and double rf stages. Other features include crystal controlled oscillators, silver mica capacitors in all i-f transformers, and an emitter-follower output. A 4-W modular plug-in audio amplifier for use with the ST-300 also is available.

Circle 89 on Reader Service Card

Four-Color Phase Shifter/Amplifier

Model 3248A1 four-color subcarrier phase shifter/distribution amplifier made by Telemet Co., Amityville, N.Y., shifts the phase of a 3.58-MHz subcarrier signal up to 360° in 30° steps with adjustable 2-V peak-to-peak signal gain. An additional control on the front panel of the solid-state unit provides for incremental fine phase control adjustment. Input impedance is 15 k ohms; output, 75 ohms. The unit contains its own power supply and operates from ac line with 3 W of power.

Circle 90 on Reader Service Card

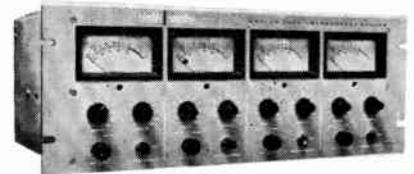
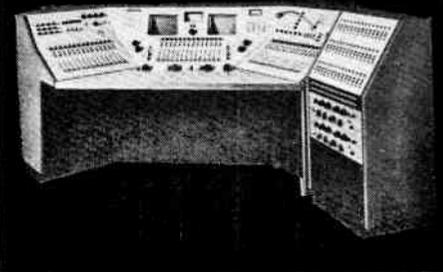
CCTV Monitors With 800-Line Resolution

Models VM-617 and VM-23 solid-state TV monitors, introduced by Ampex Corp. of Elk Grove Vil-



lage, Ill., provide horizontal line resolution of 800 lines at center screen. Prices range from \$499.95 for the 17-in. monitor to \$549.95 for the 23-in. unit. A 27-in. vacuum tube model also is available for \$499.95. All moni-

SUPER SOUNDS start with FAIRCHILD



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FAIRCHILD MTIS with "focused-gap" head design reduces bias-induced noise to a point where it is no greater than 1.5 db than the noise of virgin or bulk-erased tape. FAIRCHILD MTIS has an S/N ratio of 72 db on one track of a 4-track 1/2" tape. FAIRCHILD MTIS increases the recording level by 4 db over present standards, with the lowest harmonic, intermodulation, and cross-modulation distortion of only .5%. Only the FAIRCHILD MTIS comes in a compatible, convertible package allowing you to update your present tape transports to the highest quality "state-of-the-art" recording standards.



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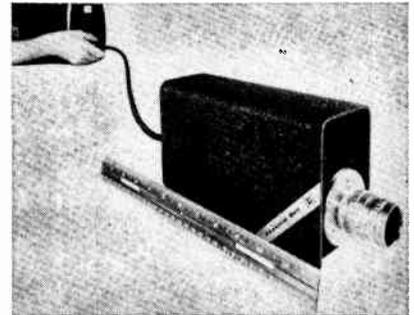
Circle 28 on Reader Service Card

tors have front operating controls and all-metal cases with carrying handles.

Circle 92 on Reader Service Card

Two-Piece CCTV Camera

Model PB-920-RH two-piece CCTV camera, made by Packard Bell Space & Systems Div., Newbury Park, Cal., provides a usable picture at 1/10 L/ft² with



1.9 lens; normal operational minimum center resolution of 650 lines. Complete vidicon with lens, camera is priced at \$899.

Circle 94 on Reader Service Card

Dynamic Cardioid Has Dual Impedance

Model CDM 80 cardioid mic, made by Sonotone of Elmsford, N.Y., offers a front-to-back rejection ratio ranging from 16 to 20 dB and a frequency range of 80 to 10,000 Hz. Mic features dual input impedance of 200 and



50,000 ohms, which may be selected by connecting the appropriate lead at the end of 15-ft cable. One kHz sensitivity ranges from -83 dB with 200-ohm connection to -59 dB with high-impedance connection. CDM80 is equipped with ON/OFF switch and wind-blast screen. Mic is available singly for \$43.50, and in matched pairs for \$87.50.

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Vidicon Replacements On 90-Day Free Trial

Available through Amperex Franchised Broadcast Tube Distributors on a free 90-day trial basis, vidicon types 8483 and 55852N directly replace types

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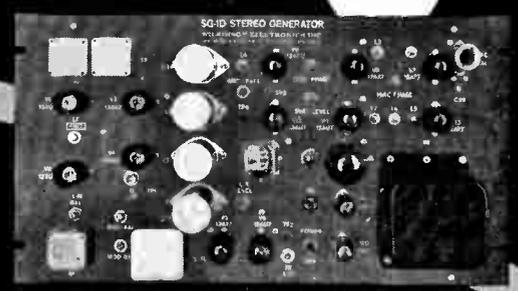
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TRANSISTORS

At last—a comprehensive guide to transistors written at the technician's level. Beginning with the principles of operation, the author proceeds to transistor characteristics, equivalent circuits, how to establish suitable DC operating conditions, etc. Low level, high power, and high frequency amplification; oscillator, switch, and DC amplifier circuits, radio receivers and power supplies are all covered in separate Chapters which include data on practical circuits. Data is also included on handling and testing transistors. Covers all types of transistors—junction, epitaxial planar, field effect, etc. Especially needed with the advent of solid-state broadcast gear. 304 pps.; 18 chapters. Order TAB-416 only \$6.95

TELEVISION ANNOUNCING

A new book which is, in fact, perhaps the only complete manual for all who appear, or aspire to, "on camera." Covers all phases—personal qualities necessary, auditioning, staff announcing, personality presentation of all types of programs, newscasting, interviews, commentary, conducting remotes, presenting commercials, the technical side of announcing, etc. The reader is told not only how to speak his lines, but also how to breathe, to relax, to put interviewees at ease, to make up, etc. The announcer's job in relation to others in the studio, and how to cope with engagements outside the studio, such as personal appearances, are also covered. 264 pps. Order TAB-202 only \$10.00

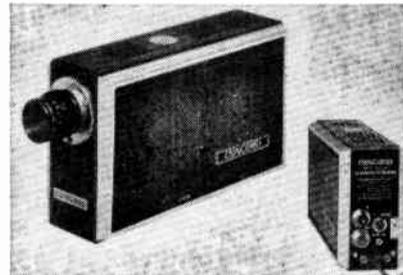


7038, 7291, 7325, 7336, 7697, 7735B, and types 8507, 8541, and 8572, respectively. Amperex of Hicksville, N.Y. lists the price of the 8483 as \$185, and \$250 for the 55852N.

Circle 78 on Reader Service Card

Portable CCTV Camera Has Electronic Light Compensation

Model MTC-15, made Concord Electronics Corp. of Los Angeles, Cal., is recommended for continuous-duty applications. The camera draws less than 5 W of power



and has a vidicon tube whose life is 3000 hr. Camera is equipped with an F 1.8 25mm lens, and may be optionally equipped with a low-cost zoom lens. Resolution is 550 lines. Camera has output impedance of 75 ohms; minimum light intensity is 40 lux. Camera weight is 6 lb. MTC-15 is priced under \$400.

Circle 107 on Reader Service Card

CATV Operator's Handbook

A 160-page volume covering CATV system planning, installation, financing, promotion, sales, and program origination has been published by TAB Books, Thurmont, Md. Suitable as a reference handbook for system owners, managers, engineers, or prospective system operators, CATV Operator's Handbook provides valuable—and much unavailable elsewhere—information on all phases of CATV—from head end to receiver, from obtaining a franchise to selling hookups, from planning and installing the head end to program origination. Originally published in BM/E, the 20 chapters cover: Obtaining a Franchise, Cable Poles—Lease or Install?, Planning Cash Requirements, Appraising An Existing System, Updating Yesterday's System, Promoting and Selling Cable Service, Adding an Information Channel, Automation and Local Origination. Price for single copies is \$7.95.

Circle 77 on Reader Service Card



- 9 BIG Sections
- 1728 pages
- 1306 Tables & illus.

NAB ENGINEERING HANDBOOK

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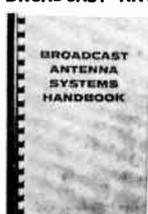
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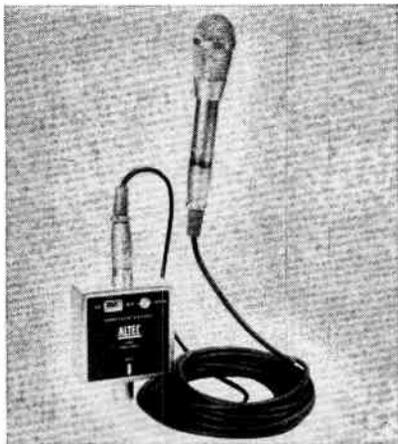
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Model numbers M49 through M52 are the designations for solid-state condenser microphones in ac/cardiod, dc/cardiod, ac/omnidirectional, and dc/omnidirectional versions. The microphones, made by Altec Lansing of Anaheim, Cal., have flat frequency response from 20 to 20,000 Hz with an output level of 53 dBm ref 10 dynes/cm². All models feature a diaphragm smaller than 0.5 in. dia and type 195A base employing an FET emitter follower. A separate power supply with mercury cells provides balanced



outputs for standard 150/250-ohm microphone preamp inputs. Accessories included at no additional cost are wind pop screen, microphone holder, and 25 ft of cable.

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CATV Origination Devices Transmit Weather Information

Weather Channel '97', made by Telemation, Inc. of Salt Lake City, Utah, is a CATV origination device that contains nine panels with seven weather instruments. The unit features scanning decks, its own lighting system, and provision for pan and tilt of camera view to facilitate live pickup. Price of the '97' is \$5495; the '75'—a lower priced Weather Channel model with seven panels and five instruments—sells for \$3995. Among the accessories Telemation makes for these devices are Chroma-Channel and Sav-A-Channel which provide for color transmission and intersperse two program inputs on one channel. These accessories are priced at \$395 and \$1595, respectively.

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NAMES IN THE NEWS



Patton Jorgensen Townsend Nicholas

Joseph S. Sinclair, president of the Outlet Co. of Providence, R.I. has announced the promotion of Billy L. Patton, chief engineer of WJAR, to a newly-created position of Director of Engineering Outlet Broadcasting.

Memorex Corp. has appointed Finn Jorgensen to a newly-created position as Manager, Recording Research.

The St. Nicholas Society of New York recently awarded its Medal of Merit for distinguished service to its former President Reginald T. Townsend, now Vice President of Radio Liberty.

Ameco, Inc. has named Judd C. Nicholas Manager of Production Engineering. The appointment was announced by Ray Wood, Manufacturing Director.

Vincent T. Wasilewski, president, National Association of Broadcasters announced the appointment of Harold Tanner of WLDM as chairman of NAB's fm committee.

Roy M. Huberty has been promoted to Chief Engineer at WLS Radio.

Robert E. Bullock, former chief of engineering for the KHJ organization, has formed his own radio engineering consultation service.

Avco Broadcasting announces the election of Clyde G. Haehnle, Director of Technical Research and Robert L. Goosman, Controller, as Vice Presidents of the Corp.

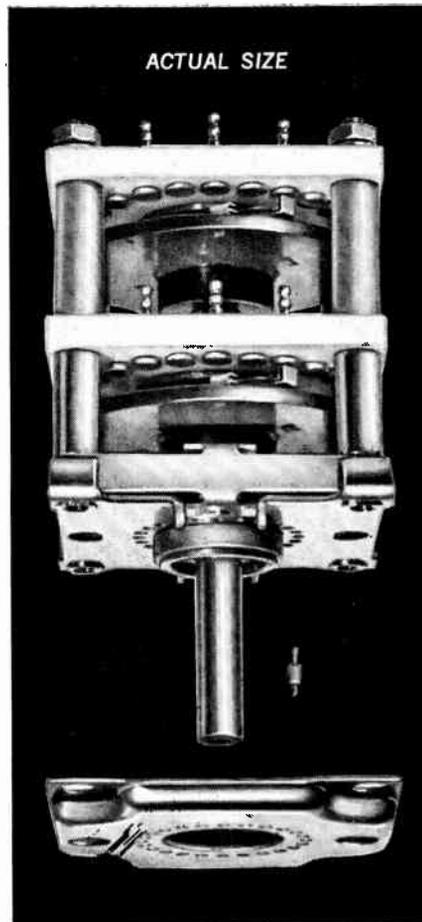
WERE has appointed Robert West its new Program Director.

A.L. Ginty, Vice President of Marketing and Sales, for Anaconda Astrodats announces the appointment of Gary Langseth as Regional Manager.

H. Holt Riddleberger named associate director, ETV stations div., NAEB.

Matthew J. Culligan, MBS pres., designated the network's member, NAB board of directors.

Dumont Electron Tube Div. of Fairfield announces the appointment of Carl Tepel, Manager of Materials.



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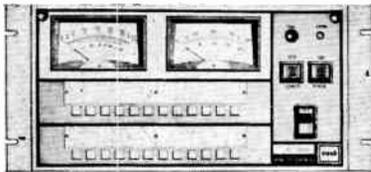
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Bost, Jr. Cochran Alinsky Clements

GE announces the appointments of Thomas F. Bost, Jr. as Manager of Field Services, Robert W. Cochran as Manager of Overseas Business Development, and Alan Riegelman as Field Sales Manager for GE's Syracuse CCTV operation.

Raytheon Co. has named Joseph W. Alinsky President of their Dage-Bell Div.

Littlefuse recently named Walter A. Clements Vice President of Sales and Marketing.

Viking Industries field application engineer appointments: Cliff Beyersdoerfer, Ohio, Indiana; Robert Vandergift, W. Virginia; Ronald Schultz, Illinois, Wisconsin, Minnesota.

Imants (Don) Skulte joined Visual engineering staff.

Joseph L. Leon has been named for the position of Sales Manager of 3M Co.'s Magnetic Products Div.

Lynch Communication Systems, Inc. communication engineering appointments: Norman E. Cellers, San Francisco headquarters; Richard C. Ziesler, Dallas, Tex. office.

BROADCASTERS SPEAK

Sirs:

The staff of our small college station here in Southern California is comprised mainly of students who are interested in a career in radio. For this reason we strive for the most professional attitudes in our schedule of programming and demand uncompromisingly, professional attitudes on the part of our announcing staff. It has been our finding that most college radio stations exist simply as toys for a few students to entertain themselves with. This is not so at Chapman College Radio.

The funds for our over-expanding station come solely from our student body which is made up of only 700 enthusiastic students. By their support and trust in the station staff we have built a station that we are justly proud of. All who are on the staff are on a voluntary basis and their incentive for doing a good job is provided in the praise which they receive from their fellow students.

This brings me to the point of this letter; professional attitudes and high-class programming would

not be possible without the help of firms such as yours. We consider your magazine, BM/E, as tops in the field. Thank you very much for our subscription.

Foss Tucker
General Manager

Sirs:

After seeing it mentioned in your letters column in the December issue, I wonder if we might also obtain a copy of "Mobile News Units On A Showstring" from your May, 1965 issue.

We have been searching for a method to do the same thing the article seems to cover, and this will help quite a bit.

Thank you very much.

Harry Joseph
Station Manager

On the way, H. J. Glad you liked it.

Sirs:

Thank you for the excellent Big Mike story (December, 1966, p 27). Needless to say, I am very pleased and proud. I have had a number of phone calls and letters concerning the story . . . from Texas to Pennsylvania. As a matter of fact, I had my first phone call before I had seen the story myself. . . .

As of this date the Big Mike has been out 38 full days since its June debut. We decked it out in Christmas trim and since Thanksgiving have appeared ten days in eight different towns, sponsored either by Commercial Clubs or participating merchants. Gross to date is a little over \$6,000.00.

Gilmore F. Frayseth

Sirs:

For some time I've searched your BM/E magazine for a supplier of Station Call Letters for micro-phones.

I'm looking for some one who makes the small units similar to the "eye" on CBS mikes on TV.

If you have any ideas where I can locate such a supplier, please let me know.

Gordon C. Bud Pentz
President

Sirs:

I noticed your letter in the December issue of BM/E. I believe you can obtain cast aluminum call letter plates for the EV-630 microphone from:

Alto Metal Products
1883 N. Reading Road
Cincinnati 15, Ohio

L. T. Pfister
Manager

Sirs:

I am sending in my order this week for your new book on the "FCC Rules and Regulations." However, in the meantime, do you have a listing of the license expiration dates of all radio and television stations in the United States?

I would appreciate it very much if you could assist us in this matter.

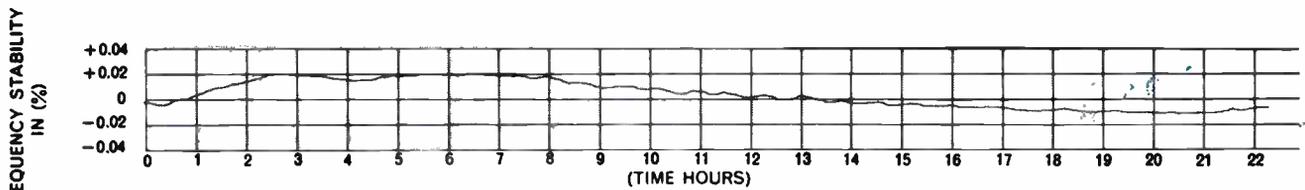
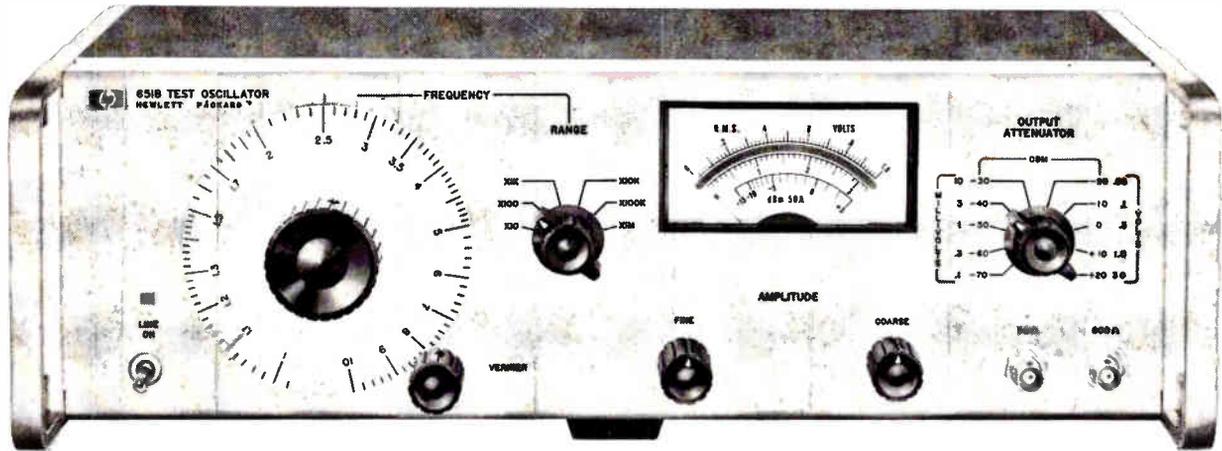
Robert O. Moran
Managing Director

We have no such list, R. M., but if you write to the FCC, Attn: Broadcast License Bureau, Washington, D.C. 20554, you should get the information you want.

New hp 651B and 652A Test Oscillators:

FLATNESS, STABILITY and ACCURACY

from 10 Hz to 10 MHz



Typical Frequency Stability ($\pm 0.02\%$) at 5 MHz for 22 Hours.

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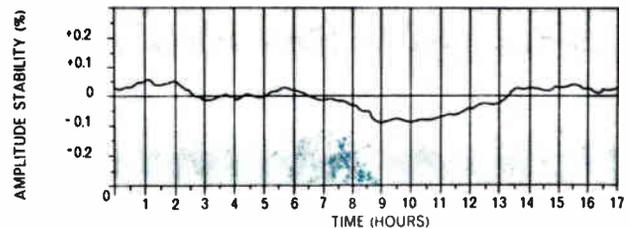
APPLICATIONS: Use the new wide-band, solid-state hp 651B and 652A Test Oscillators for laboratory and production applications, in the presence of shock, vibration or high-frequency radiations. Both models are ideal for calibration of voltmeters because of accurate attenuator and output monitor.

These oscillators are specifically designed for testing television amplifiers, audio amplifiers, filter networks, tuned circuits, telephone and telegraph carrier equipment, and for testing audio and video tape.

PERFORMANCE FEATURES: Oscillator circuitry has hp precision tuning capacitor and peak detector automatic gain control to insure a flat output throughout the entire frequency range. Solid-state, low-impedance circuitry and a shielded power supply transformer reduce output hum and noise to less than 0.05%.

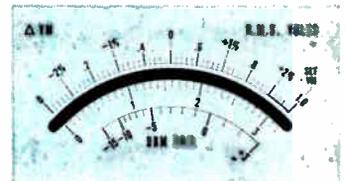
Output attenuator has a 90 dB range in 10 dB steps, with a 20 dB coarse and fine concentric amplitude control for increased resolution in setting output voltage. Output monitor is calibrated to read volts or dBm into a matched load.

652A: Specifications of two oscillators are identical except that the 652A has the ability to monitor output



Typical Amplitude Stability ($\pm 0.1\%$) at Mid-Band Frequencies for 17 Hours.

amplitudes within 0.25% over the entire frequency range of the instrument using the X20 expanded scale. Readings on the uppermost scale of the 652A are in percent for quick reading of frequency response measurements.



652A Expanded Scale Monitor

For full specifications on the new hp 651B and 652A Test Oscillators, contact your nearest hp field engineer. Or, write to Hewlett-Packard, Palo Alto, California 94304, Tel. (415) 326-7000; Europe: 54 Route des Acacias, Geneva. Price: hp Model 651B Test Oscillator, \$590.00; hp Model 652A Test Oscillator, \$725.00.

116A

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Business of CATV

(Continued from page 17)

passed an ordinance at the close of the year empowering the borough to collect \$1 per subscriber. Affected will be the Washington Cable Co., an 800-subscriber system. The borough mayor justified the move on the grounds that other communities receive a percentage of revenue. The borough also set regulations for cable companies similar to those in force for utilities.

Seattle Adopts Ordinances. Updating a 1951 ordinance, the 1967 version will require 6 percent of the franchise holder's gross revenue — up 2 percent from the original 4 percent. The ordinance will give the Board of Public Works full control of street areas in which equipment is placed. Also, the TV signal must be furnished free to all public, private and non-profit educational institutions, as well as municipal buildings in the franchise holder's source area. Franchise holders are granted the right to charge "reasonable compensation" but rates must be uniform for the same class of service. Pay TV is precluded in that no extra charges may be imposed for programs not generally available.

The new ordinance will apply to the newly formed United Community Antenna System which is owned by three commercial TV stations—KIRO, KING and KOMO and Master Television Systems Inc. (ownership is 24-24-24-28 respectively.) Master held the original franchise. Three firms are seeking new franchises: Colorcable Inc. to service the Rainier Valley area; Total Telecable Inc. to service the Green Lake area, and Seattle Cablevision Inc., area not specified.

Franchise Controversy Ends in Tabling. City Council of Elyria, Ohio, has decided not to grant any CATV franchise "until the FCC resumes issuing CATV licenses," thus shelving a 15 month hassle over issuing a franchise.

Competing CATV's Confuse Council. The Galion (Ohio) City Council was set to vote a franchise (nonexclusive) to Northern Ohio Tel-TV Co. when the attorney for Crawford County Cable Co., which also sought a franchise, asked if the council

had given consideration to Crawford's proposal such as the \$10 installation saving, lower rates to subscribers and qualifications of engineers. The question caused the motion to accept Northern's proposal to be tabled.

Baytown, Texas Reconsiders. After giving Baytown CATV exclusive rights earlier in the month, two proposals were offered to upset the ruling. One would deny Baytown exclusive rights. The other would impose a 2-percent gross receipts tax on any user of the city's streets or alleys for wired communications. Both proposals were tabled.

Winnetka Municipality Makes Own CATV Law. After failing to get a regional law among 15 Chicago North Shore communities for regulating CATV, Winnetka decided to go it alone. The municipality's law is reported to be simple: compliance with FCC regulations, uniform subscription rates and service available to all community residents within 5 years.

Sells Local Ownership, To Lose Franchise? The Crawford County Cablevision Inc. of Bucyrus, Ohio, drew the wrath of the city council and a 4-3 vote commenced action to revoke a 10-year television franchise agreement. The franchise was granted in September after weeks of dispute which Crawford won presumably because it was locally owned. But Crawford then filed with the state to sell controlling interest to United Transmission Co. of Kansas City. The mayor charged that the spirit of the agreement was broken. The Crawford firm claims the sale of stock was necessary because of high telephone pole rates. Case will go to court.

Duarte, California Okays CATV. For a fee of 3 percent of the gross revenue, Duarte City Council introduced the first ordinance to permit a CATV franchise. A minimum fee of \$1,200 was stricken from the ordinance.

Good-Vue Good Guys. GoodVue CATV of New City, New York was awarded a franchise over other applicants reportedly on the sole grounds that Good-Vue had been granted franchises and

was operating in neighboring towns.

CATV Consolidation. Mansfield Telvue has been merged into Multi-Channel Cable TV, both of which have been providing community antenna television service at Mansfield, Ohio. Fifty percent of the stock of the merged company is owned by United Transmission, Inc., a subsidiary of United Utilities, Incorporated, of Kansas City. The other 50 percent is owned by the Mansfield Journal Co. Ohio Radio, Inc.

Business of ETV

South Dakota Moves to Total ETV Coverage. Establishing channel 9 in the western part of South Dakota and channels 8 and 2 in the west, South Dakota hopes to reach about two-thirds of its elementary and secondary students by September, 1967. One year later, with the addition of three more channels, blanket coverage of the state is expected. ETV will be available to a total of 500,000 persons in southwest Minnesota, northwest Iowa and northwest Nebraska as spillover from ETV system. The state legislature appropriated funds amounting to \$400,000 for purchase of transmitter and studio equipment. This amount and all future appropriations and contributions will be matched by the U.S. Department of Health, Education, and Welfare. The state legislature is expected to appropriate another \$600,000 in 1967.

Phase one of the project calls for construction of stations for Vermillion (channel 2), Brookings (channel 8) and Rapid City (channel 9). The Vermillion transmitter will be at Beresford. Phase two would add transmitters at Reliance (channel 16) and Eagle Butte (channel 13).

Berks County, Pennsylvania Edges Closer to ETV. Intending to tap ETV signals from in the Lehigh Valley, and from Hershey and Philadelphia, Berks County is investigating the possibility of purchasing translators and towers for bringing in one ETV station like channel 39 of Allentown-Bethlehem. Seventy percent of the \$160,000 cost of the equipment needed for re-

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Business of ETV

(Continued from page 66)

ception of one station would be financed by the state. If reception of additional stations is desired, the cost would have to be met locally. Yearly operating costs for an unattended translator providing one channel are estimated at \$130,000. But, because of programming problems, the education authorities of Berks county likely will not settle for reception of one ETV station.

Indiana Plans Two-Year ETV Project. Ball State, Indiana State, Indiana, and Purdue have requested Gov. Branigan to ask for a \$3.1 million ETV appropriation from the state General Assembly. The system calls for interconnection of 35 county seats, with eventual expansion to include county seats of the entire state. A possibility has been indicated by the Indiana Bell Telephone Company that they could install the system for less than the original request.

Broward Junior College Gets

ETV Boost. A federal Grant of \$34,205 recently was awarded to Broward Junior College of Broward County, Fla. The funds will be used for TV facilities at the college that also will tie into an ETV station being built by the county school system.

Morehead State University — Center of Kentucky's Future ETV Network. MSU now is the outlet of the TV system for almost all of Eastern Kentucky. Relay stations will eventually pick up the programs from Morehead and beam them to every part of the state. Morehead State is now engaged in a \$14 million building campaign which has built-in ETV floor space allocations. Kentucky ETV was initiated eight years ago with an \$8.6 million appropriation by the state legislature. Present plans call for 12 transmitters and approximately 40 staff members operating a network that will make programs available to every elementary, secondary, and college student in the state.

A recent \$359,000 appropriation together with later federal

grants of about \$2 million have enabled the Kentucky Authority for Educational Television to begin assembling hardware.

Post Office Buys CCTV. The U.S. Post Office Department has awarded to Shibaden Corp. of America, of 58-25 Brooklyn-Queens Expressway, Woodside, N.Y., a \$416,000 contract to furnish and install 25 CCTV systems in 18 cities in the United States. Involved are approximately 230 Shibaden CCTV cameras and about 160 Shibaden CCTV monitors.

CCTV Gets Subject Matter Across to Lower Grades. A pilot program recently came to a close in Tomah, Wisconsin which used a mobile transmitting room and three CCTV classrooms. Video tape recording were used to televise an ecology course to youngsters in elementary grades 7 and 9. The three-week course took place at Tomah Junior High School, and results are expected to show that although the ecology course is taught only the ninth graders, the seventh graders also will glean substantial amounts of information from the course.

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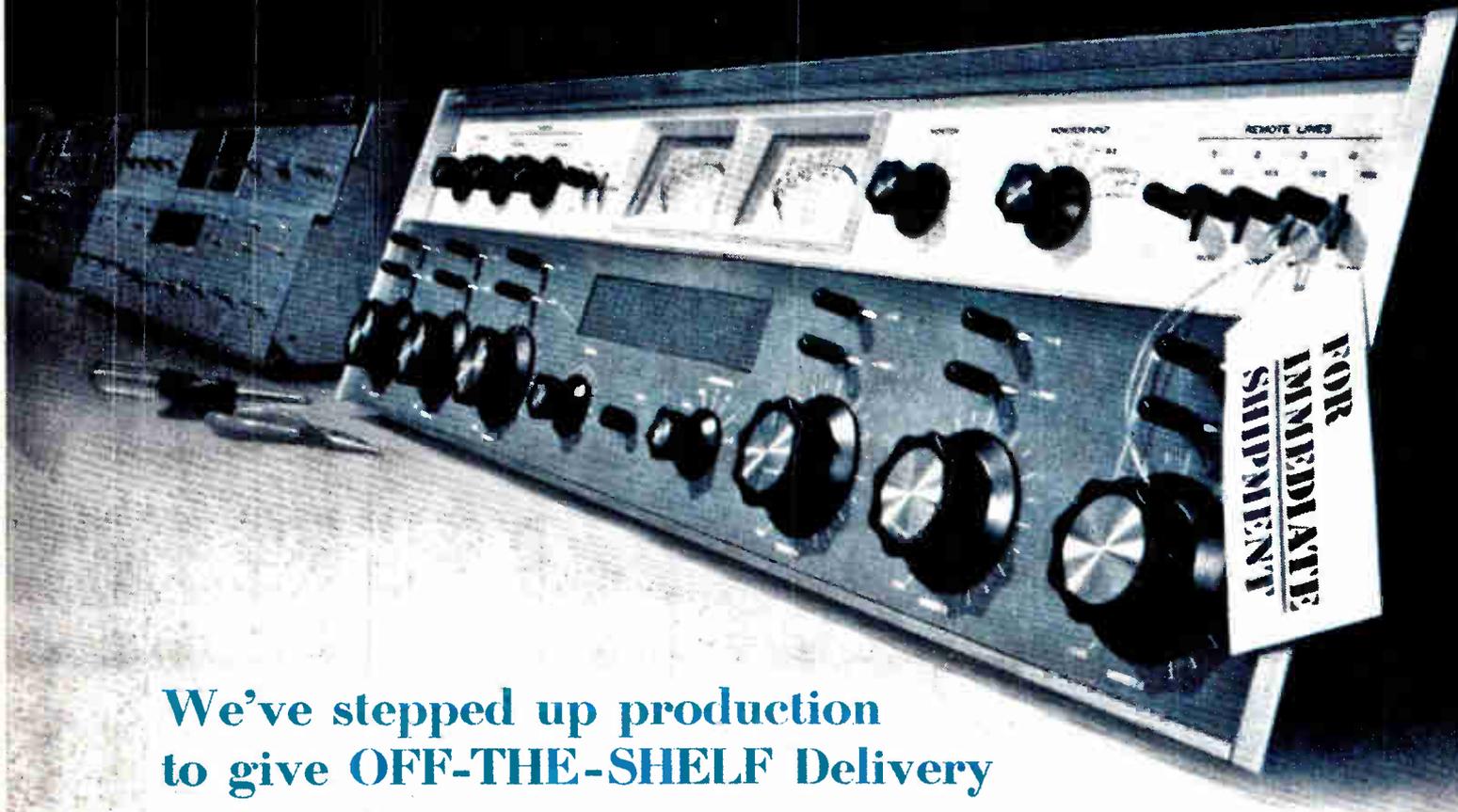
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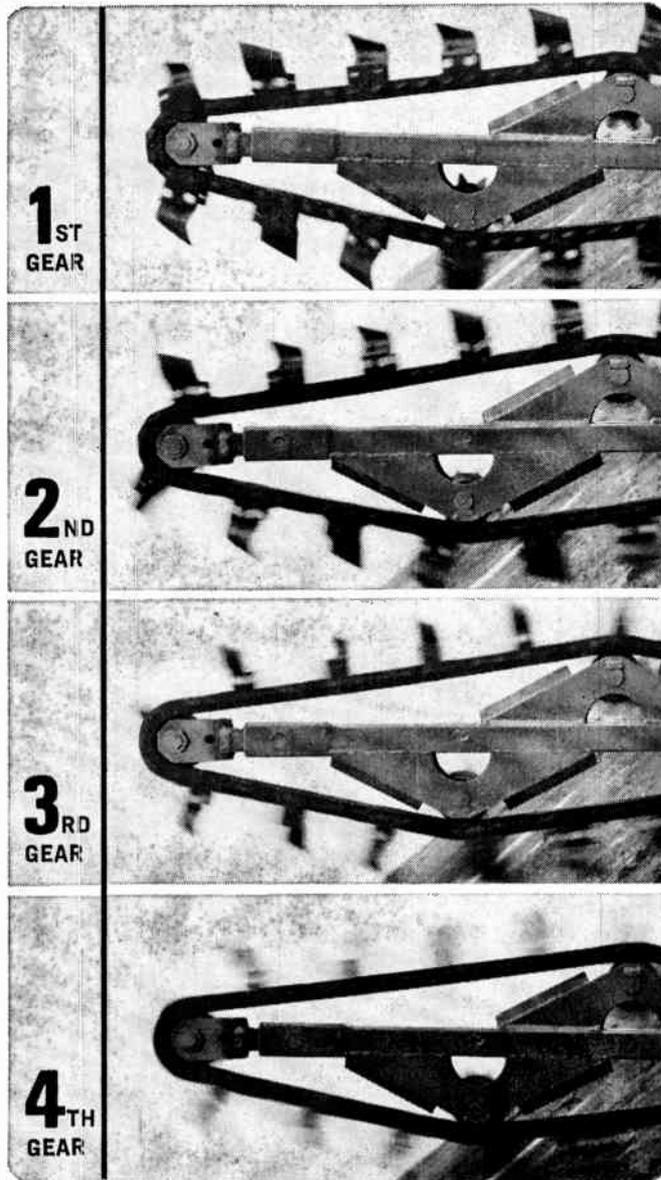
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COMPANY _____

ADDRESS _____

CITY, STATE, ZIP _____

A DIVISION OF CHARLES MACHINE WORKS, INC.

Circle 42 on Reader Service Card

(CATV Origination—continued from page 38)

type of program has great local appeal, and any operator can do the same thing in his area with a little imagination.

At Chillicothe, Ohio, the history of Chillicothe and Ross County were made on videotape and sent out on the local CATV system, Telcom.

ITV as Well

Telcom participated in making the videotapes which were planned not primarily for CATV but for school lessons, grades 4 through 8.

A retired school teacher made the presentations. Telcom's technical personnel, equipment, and studios were used. Lessons in the series included the prehistoric era; historic Indians; the Northwest Territory; the founding of Chillicothe in 1796; statehood and establishment of the first capital in Chillicothe in 1803; Adena; social progress, including education, religion and newspapers; the Canal days; the four governors from Chillicothe; the Civil War; famous Chillicotheans; and local industries.

The school also set up radio and television speech classes which include both classroom work and laboratory sessions. Telcom facilities are used for the lab sessions. Students first take up radio production and then move into television. Classroom sessions include a study of the history of radio and television, program production, differences between commercial and educational television, closed circuit school television systems, remote broadcasting, the Federal Communications Commission and how it controls broadcasting, the laws which govern radio and television station operation and the jobs and positions included on large and small station staffs.

What About Local News?

In analyzing all the problems the average system operator might have in attempting to keep up with local news on a daily basis, our suggestion is—*don't*. This is full-time job, and most systems are not equipped to do the job justice.

But, on the other hand, let's suppose your town has no daily newspaper. If there is a weekly paper, its owner may jump at the opportunity to be before the cable audience daily, five days a week. Can you make arrangements with the newspaper to cover the news for you? Perhaps they have someone who could even air it. Our concept of local cable coverage boils down to this: Local origination on the cable should be offered to provide a public service not provided by others in the community. Area radio and TV stations will air news items in small communities only when they are of a spectacular nature (murder, major fire, etc.). Day-to-day events—those items which have more bearing on local people than probably 99% of everything covered by outside news sources—simply do not get aired.

Undaunted by such problems, Antenna-vision, Inc. at Ilion, N.Y. uses staff members to catch any major event worthwhile and has started

regular live programming at 9 A.M. each morning.

Antenna-vision is making arrangements with five local high schools in the cable service area to have representatives attend local village council meetings and report the following morning. Telcom has a regular news cablecast for 15 minutes at 7 P.M.

So, can you do the job? You can if you can cover the news as it happens, such as the City Council meetings. If a building burns down, the city has a parade, or the Parks and Recreation Department holds a swim meet, you can be there. But a local newscast, evening in and evening out—that is a decision you will have to make for yourself, weighed by your own conditions. One idea we heard of has merit—a weekly show moderated by the local newspaper publisher, who invites as guests one or more individuals who made front page news in his paper. Sometimes it's a local citizen, or the mayor. The moderator covers the content of the news stories with the individuals, and the system opens the program to viewers who telephone the studio with questions for the newsmakers. The program follows issuance of the weekly paper by 12 hours, giving local viewers an opportunity to digest front page headlines before program air time.

The Production Process

There is the danger in program production to become so entranced with the medium that the producer will lose objectivity. Television is both an entertainment and communications medium. Your role, in local origination, is communication. If you entertain in the process, fine, but this should not be the major objective. In truth, your programming should be reflection of the community you serve. Be satisfied if you provide an efficient, accurate mirror of community activities.

Your cameras and VTRs are probably well below commercial standards. And your crew prob-

ably spends all day stringing cable and running drops. You can't be fancy with split screens, optical effects and super long range zooming.

Measure and recognize your limitations from the beginning, and then work within those confines. If you do this—and do it well—you will quickly discover that local origination is the surest, fastest way to the hearts of existing subscribers—and new subscribers as well. But first, last, and foremost, you will be building a public service program in your community that will establish your firm as a pillar of the community. ●

Equipment for CATV Operators

In a future issue BM/E will discuss in detail equipment desirable for local program origination. If you would be willing to contribute to a survey indicating your choice of studio equipment, please send your name on the Reader Service card. Signify yes by circling 152.

Programming Done By CATV Operators

local sports news, coach interviews	community service interviews with local employers
bowling tournaments	local plays, drama programs by high school speech and drama clubs
high school games	high school band and orchestra
homecoming parades	art and theatre discussions
Fourth of July parades and weather	entertainment shows teen-age dance shows children's shows
national news AP and UP wire	religious programs stamp shows
stock ticker tape	bingo
local news	country and western women's clubs
CATV council meeting	fashion shows
political discussion	scout shows
reports from local congressmen	films
election results	syndicated material
seasonal events, Halloween, Christmas, community events	
booster clubs	
civic group meetings (Jaycees, Kiwanis, etc.)	
fund drive news	



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Television Associates, 27 Taber Road,
Rexdale, Ontario, Canada

Circle 43 on Reader Service Card

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— Associated Companies —

Tommy Moore, Inc.—Big State Engineering, Inc.
Tower Construction Finance, Inc.

Circle 44 on Reader Service Card

LITERATURE of INTEREST

For additional data, circle No. shown on Reader Service Card.

Solid-state servo amplifier condensed catalog, 4 pages, contains detailed performance parameters, limits, and specifications of Melcor amplifiers. 115

CCTV system is described and illustrated in catalog from Blonder-Tongue Laboratories. Catalog includes cameras, lenses, pan and tilt mechanisms, camera mounts and housings, sync generators, switchers, faders, monitors, modulators, and other studio TV equipment. 116

Subminiature rf connectors are displayed with dimensional drawings in 55-page ConheX catalog. 117

ETV teaching practices — upgrading and evaluation — is discussed in 4-page illustrated brochure from Cohu Electronics. 118

Problems of stereophonic broadcasting are discussed technically in Edition 20 of "New from Rhode & Schwartz," 42 42 pages. 124

Books on all phases of radio-TV-CATV, many unavailable from other sources, fully described and illustrated in 18-page literature package from TAB Books. 170

"A Guide to Projection Screen Selection" gives helpful hints for selection of projection screens based on factors of room illumination, audience size, and spread. 138

Technical data sheets from Pye Tvt Ltd give specifications and illustrations of Models 4589 and 2573 distribution amplifier and synchronizing pulse generators. 129

Co-channel filter, line extension amplifier, color and colortap adders are described in three technical brochures from SKL, Inc. Filter brochure has tips on CATV color problems. 130

Automatic programming and logging system for a-m and fm stations, called Prolog is described and illustrated in 10-page catalog from Continental Electronics Co. Catalog contains sample log sheets. 131

Transmitter power supply with solid-state rectification is illustrated in descriptive brochure from Townsend. 141

Automatic equipment for program logging, cartridge tape control, and system programming is described in five technical brochures from ATC. 133

All-channel distribution equipment catalog from Jerrold covers solid-state amplifiers, pre-amplifiers, mixing networks, tap-offs, splitters, filters, cable equalizers, terminating units, attenuators, etc. 134

Amplifiers and power supplies for professional audio applications are described in brochure from Langevin. Brochure contains specifications for 20 models of amplifiers and 5 models of power supplies. 135

CATV products including line extenders, amplifiers, taps, etc. are described in bulletin from CAS. 136

Signal strength meter specifications on Model 5907 from Viking are contained in 1-page broadside. 127

Standby generators, using gas turbines, described in literature from Solar Div., International Harvester. Up to 150-kW models are available. 143

Yagi antennas for CATV, MATV, described in literature from Lindsay Specialty Products. Discusses hybrid log periodic types. 144

CARTRIDGE TAPE ERASER

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Designed specifically for tape cartridges.

Absolutely NO sound carry over from previous recordings. Handles all cartridge sizes.

Also reel tapes up to 10½ inches. Entire process takes only 3 seconds. Price \$39.50



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Circle 45 on Reader Service Card

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SITUATIONS WANTED: 15¢ per word; \$2.00 minimum
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BUSINESS OPPORTUNITIES

Cable System Needs Equity Funds For Expansion. Leased Distribution System. Reply Box 267-18, % BM/E.

POSITIONS WANTED

Experienced Announcer-salesman. Currently retail copy writer, desires return to broadcasting. AM-FM background with some metromarket experience. Will offer hard work for security and money. College, early 30's. Will relocate. Box 267-11, % BM/E.

Successful television announcer. Host-producer of several TV "personality shows." Can cut top on-camera commercials, weather, news, interview, M.C. work. Young, aggressive. Desires large market, opportunity, security. Consider TV or radio. Box 267-12, % BM/E.

Major market newscaster—reporter on one of the Nation's most successful stations wants challenging news directorship. Leading MOR or contemporary station. Box 267-13, % BM/E.

Girl—first phone, student . . . announcing news gathering, woman's program, traffic . . . family . . . Box 265, New York City, 10036.

Station losing money? Switch to big country & western. Experienced country music PD-announcer available. Box 267-14, % BM/E.

Top 40 screamer—strong personality—18 months experience—3rd endorsed—college graduate—Box 267-15, % BM/E.

Program director would like to relocate. 12 years TV; interested in all offers. Now in top fifteen. Box 267-16, % BM/E.

High caliber take charge technical-director available soon. Box 267-17, % BM/E.

HELP WANTED

NEEDED IMMEDIATELY. Engineers experienced in the following job categories: Video tape maintenance and recordists; live color video; studio supervisors; transmitter maintenance. The above positions are all top salary. Send your resume or inquiry to the Amps Agency—3974 Wilshire Blvd., Los Angeles, California 90005
By Broadcasters—For Broadcasters.

NEEDED IMMEDIATELY: experienced TV Broadcast Engineers with first phone for expanding staff of WTMJ-TV, Wisconsin's leading AM-FM-TV broadcasting facility. Pioneers in color broadcasting. Presently operating from new studios with latest color equipment. Excellent pay and benefits when you work for this employee owned company. Call or write to Chief Engineer, WTMJ-TV, Milwaukee. (414) 271-6000.

Immediate openings, experienced engineer; transmitter, VTR, remotes, micro-wave. Excellent working conditions, pay commensurate with past experiences. Fringe benefits. Call collect Charles Perkins, Chief Engineer. WJTV, Jackson, Mississippi—area code 601-372-6311.

HELP WANTED (continued)

Broadcast Equipment Marketing & Field Sales

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Export Sales

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Field Sales

Travel and sell electronic communications equipment primarily to AM, FM, and TV stations in exclusive territory. Must be a sales minded self-starter. BSEE or equivalent plus a minimum three years in field of radio broadcasting. Excellent salary plus commission.

To receive complete information concerning the position, company and community send resume to Box 267-2, % BM/E.

TELEVISION ENGINEERS

We are interested in contacting 10 Station Engineers capable of design or field engineering. Excellent opportunities in TV Development Engineering and Systems Engineering with Sarkes Tarzian, Inc., Broadcast Equipment Division.

TV station engineering experience required, BSEE or equivalent desirable. Send resume of experience, or call, Mr. Biagio Presti, Broadcast Equipment Division, Sarkes Tarzian, Inc., Bloomington, Indiana, Area Code 812, 332-7251.



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Microwave Installer Repairman. Applicants must have second class license with radio and multiplex experience. Excellent pay, vacation, holidays, insurance, retirement and opportunities. Send salary requirements, employment history and complete resume to: Plant Manager, Post Office Box 308, Fairfield, Texas. All replies confidential—an equal opportunity employer.

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Project Engineers, all levels for challenging assignments in the design of audio, video & control facilities for color TV studios. BSEE and minimum of 2 years experience, preferably in broadcasting, required.

Location: CBS Headquarters Building, midtown Manhattan

Please send resume and salary requirements, to:

WILLIAM J. REILLY, JR.

Personnel Dep't.

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PERMANENT POSITION for announcer with first phone by newspaper owned good music AM-FM stations in Northern Indiana's lake region. Emphasis on newscasts and commercial announcing. Excellent opportunity. Call collect or send tape, resume, to manger, WRSW, Warsaw, Indiana.

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HELP WANTED (continued)

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Group owned, CBS affiliate in Pennsylvania seeks experienced man. 5kw regional AM, max. power TV-FM. Send resume and salary requirements in strict confidence to:

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Engineer with first phone. No announcing; strictly competent maintenance. Any age or experience level. Attractive salary, benefits, work environment, and growth potential. 40 miles west of Philadelphia. Contact Ch. Engr., WCOJ, Coatesville, Pa. 215-384-2100.

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Technical director—for radio-TV group in north east. Engineering degree desirable but not essential. Please give experience and salary requirements with first letter. Color and VTR knowledge important. All replies confidential. Box 267-7, % BM/E.

"All-talk" station has room in its news department for a man who likes to work with real pros. Some news experience is a requisite, radio news experience is desirable. Board and air experience helps qualify. Send tape, resume to KBON, Omaha, Nebraska.

Radio Engineers—Earn Extra Money part time. P/M Associates is national headquarters for contract engineering services. Many current openings for 1st class engineers. For full information write: Personnel Manager, P/M Associates, Inc., 203 Pond Street, Natick, Mass. 01760.

Wanted: Technician—CATV experience, permanent position—no traveling—220 mile system. \$525-\$575 month. Liberal vacation, insurance, hospital benefits. Send resume: Cablevision, 716 Francis, St. Joseph, Missouri.

Prominent Hollywood independent film and general recording facility seeks crackerjack engineer; small secured stock investment buys 10% interest for right man. Box 38027, Hollywood, California, 90038.

Wanted: Sports director. We dominate the sports area in this prosperous eastern market. If you are qualified to do play-by-play for all types of sporting events, send complete details to Box 267-8, % BM/E.

Help! Need first phone engineer-announcer immediately for small town C & W daytime station. Maintenance a must. Up to \$400, depending on ability. Send tape and resume to KCLW, Box 592, Hamilton, Texas.

Experienced CATV engineer. Permanent position with no travel. System located 30 miles outside of Pittsburgh. Send resume. Box 267-4, % BM/E.

Wanted: 1st phone for announcing & production. Small market with middle of road format. Call Station Manager, WSER, Elkton, Md. 301-398-3883.

Experienced television broadcast engineer. Replies confidential. Send resume and phone number to Bob Anderson, KIMA-TV, Box 702, Yakima, Washington.

WANTED FOR SEPTEMBER, 1967 Technician to maintain small CCTV System and repair various audio visual equipment. Eastern State-owned University. Reply to Box 267-1, % BM/E.

Engineer for transmitter. Will train beginner. WAMD, Aberdeen, Md.

Experienced first phone engineer-announcer. Immediate opening. Please send resume, tape, snapshot, and salary requirements. Box 267-9, % BM/E.

1st phone—beginners accepted. Must have car. Salary open. 5kw AM, 50kw FM Stereo. Can attend local University if desired. Box 267-3, % BM/E.

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Wanted. Chief engineer, 5kw mid-Atlantic fulltimer. Good pay. Permanent. Box 267-5, % BM/E.

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Box 267-25, % BM/E

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TECHNICAL SERVICES (cont'd.)

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MANAGEMENT ROUNDTABLE

Audience Measurement: Changes in Methodology

Do present measurement methods tell the real story? Or, do they tend to mislead by a lack of in-depth information? Here are some provocative thoughts from two leading researchers.

**Dr. Peger Langhoff,
Pres. American
Research Bureau**



THE RENAISSANCE OF RADIO has brought with it a spate of serious research activity. In the ARMS study there is implicit, if not explicit, a model of audience behavior. It proposes that the hearing of radio, as well as the listening to radio, is a condition which has advertising value.

Four Major Sources of Distortion

Admittedly, out of context, I have selected from the ARMS report, the measures of the at-home radio audience as obtained by 13 different methods of instrumentation. One of these—the telephone coincidental—was deemed by the ARMS Committee to be the most reliable measure. Good arguments can be advanced for its relative reliability. It has some serious drawbacks, however. What it offers in sensitivity, it lacks in capacity. Perhaps it does best reveal the moment of truth. If so, this is enough to draw some inferences about the reliability of the other instruments.

To assist in the exploration of this problem, I submit that there are four major sources of distortion (apart from computational errors) which must be considered in explaining how and why these

or any similar measures do depart from one another and from the truth. For the first time, the effect of instrumentation on the behavior of the observed object, the physicists have only recently formulated what is called Heisenberg's uncertainty principle. We suspect that it may occur in radio, or more broadly in all social research, but we know almost nothing about it. We may speculate that the telephone coincidental method minimizes this effect by obtaining data before subjects have a chance to alter their behavior. The ARMS Committee must have leaned heavily on this presumption in designating the coincidental as *the* direction of true North. This "sneaky" approach, however, may only lead to greater distortions by giving the subject a chance to misreport his actual listening of the previous moment. Misreporting with many of these instruments is not necessarily deliberate, but may result from memory loss, carelessness, or guesswork on the part of the reporter. The sources are many and the chances of error are substantial, but their magnitude is a matter of pure speculation. Apart from the distortions contributed by the individual, we must recognize the distortions which result from our failure to recover information from all members of the drawn or designated sample. This is a growing problem. The individual who complains that Dr. Gal-

lup has never called him is becoming an almost extinct specimen. The public is becoming tougher and less willing to respond to cajoling, bribing and attempts to appeal to their better nature.

Four Basic Behavior Patterns

We have long been aware that the state of mind of the audience at the time of ad exposure is probably a significant variable. It has been assumed that editorial content had its influence on the sales effectiveness of the advertising message. This has been a difficult one to pin down, although our own insights tell us it does exist. In most major media, the physical state of the audience during exposure to the medium has been assumed to be of minor relevance. Involvement with the medium is assumed to be all-absorbing. This is a normal concomitant of visual perception. If you are looking at something, the chances are you are perceiving. Most media require visual perception. Radio is the only medium which does not. It relies entirely on aural perception. Radio is not only the most ubiquitous of all media, it is the most penetrating. It is clearly possible—and often the case—that the radio listener is also doing something else. The question then arises as to how this concurrent activity affects the communications channel and when radio ceases to be an advertising medium and becomes mere noise.

We recently undertook to explore this area of uncertainty. We structured a model, somewhat more detailed than the ARMS model, which classifies the audience into four basic behavior patterns. In effect, we were breaking down the monolithic structure, or "total-audience figures," which has been the generally accepted view and which has implied that an individual either was completely or was not at all exposed to radio. Radio broadcasters contend that they have been underrated. We felt that they had a case, though not one which was open or shut. A simple model served, once again, to lead us closer to what probably happens in reality.

We have diagrammed the four all inclusive categories of radio audience behavior, along the dimension which is perhaps most relevant to advertising opportunity. In the first group are those who are fully absorbed with the tuned program. We call the behavior in this group "Concentrated Listening" (CL). These are the glued-to-the-set people who presumably have maximum involvement. The next audience segment may be described as "listening with incidental activity" (LA). Mentally, they are involved with the program, but physically they are engaged in some routine chore. Then, we have the people whom we bracket in the class "activity with incidental listening." (AL). In this group, the primary activity demands the greater part of their attention, but they are least conscious of radio sound and elected to permits its presence. Finally, we reach the group of minimum involvement which we label "incidental hearing" (IH). We now have a completely closed system which accounts for the total population exposed to the medium and we have groups which have, we assume, varying degrees of advertising receptivity.

Value of Exposures

It should be clear that advertising value or commercial impact, within each group, is a function of the individual commercial. For some commercials, the advertising opportunity may be great across all groups, including the peripheral listening or hearing group, whereas other commercials

may require a fairly high level of program involvement to yield any significant advertising value. The measurement service may report the distribution of the audience by groups, but only the user of the time can effectively assess the value of the exposures. So, dutifully, we at ARB have undertaken experimentally to apply measurements to this audience response model and to make a first pass at establishing some real world parameters for the model. In doing so, we point up the limitations and capabilities of the available types of instrumentation. Of the available instruments, we elected the telephone coincidental. Considering the type of information we were seeking, the reasons for this selection must be fairly obvious.

From surveys conducted the summer of '66 in St. Louis and Washington, we learned that about one in six persons in the at-home audience were in the "Concentrated Listening" group. In the second group, "Listening with Incidental Activity," we find nearly half the audience. Among these we find a great deal of mealtime listening and housework. The third group, "Activity with Incidental Listening," is the smallest of the four for the total audience. "Incidental Hearing," accounts for about one-fifth of the total.

Beyond these overall measures are the patterns of involvement by station and program type as well as audience demographics. In this detail, we have indications of interesting buying and selling opportunities to be derived from this type of measurement.

How constant or predictable these distributions will prove to be, of course, awaits further observations. We intend to continue this type of work and we hope others will do the same. We may need to couple two different types of instrumentation such as the coincidental and the diary if the economics of this information justifies the effort. I see as a primary responsibility of an audience measurement service the obligation to enlighten the marketplace between buyer and seller. We shall succeed in this only if we persist in the pursuit of fuller knowledge and understanding of how these complex communications system really work to deliver advertising values.

Melvin A. Goldberg,
Planning & Research
v.p., John, Blair & Co.



ALMOST 4 YEARS AGO, a subcommittee of The House Interstate and Foreign Commerce Committee began hearings on the methodology, accuracy and the use of broadcast ratings. Out of this investigation, many questions were raised regarding the rating services and the data submitted by the services.

Sources of Error

As a result of these hearings, the broadcast industry took upon itself the project of correcting some of the abuses discovered by the committee and preventing some of the potential abuses. The first direct action taken by the industry was the establishment of the Broadcast Rating Council, composed of members of all branches of the radio and TV industry. Its first act was the adoption of Minimum Standards for Broadcast Rating Research. In order to be accredited by the Broadcast Rating Council, rating services must follow these standards and agree to (1) say what they do and do what they say, and (2) submit to audits of their operations by independent CPA auditing firms, who act as agents for the Broadcast Rating Council.

A second outgrowth of the hearings has been the initiation of methodological research in the ratings research area. The first of these, the CONTAM Study, was conducted and paid for by the three networks and was reported last year to the industry. The second item of research is the study recently issued by the All Radio Methodology Study Committee, the so-called ARMS Study. Although members of the ARMS Committee concluded that certain techniques were better than others in measuring radio audiences, in my opinion, possibly the most important findings, were those relating to the different sources of error. For example, telephone samples, while showing a bias toward females, higher-educated, higher-income telephone homes, also yielded more no-car-owning families and two-car own-

ing families than the personal-placement technique.

Need Improved Research Samples

And yet, telephone is only one bias source. The type of survey information required will tend to result in a more personal or individual bias. For example, a diary that is more difficult to complete, or requires more work, such as the 4-media diary or the daily-mail diary, tends to get an over-representation of males, teenagers and larger-sized households. Each technique, each method of diary placement, each method of data collection, each with its individual data requirements, contributes its own peculiar bias to the survey results. Each contributes a bias, not only in terms of respondents but in terms of response. And yet, through it all, there is one bias common to all techniques: the bias from noncooperation of designated respondents.

Although each of the techniques used in the ARMS Study developed its own cooperation rate, and although certain techniques tend to show more "inaccessibles" among the designated sample homes than others, low cooperation rate was still a major bias factor in all of the techniques studied. If the cooperation rate could be improved significantly, I'm sure the biases could be greatly reduced. We must exert every effort to improve research samples. One possibility, I believe, is through an organized advertising and promotion campaign designed to increase cooperation among all potential survey respondents. This campaign can be created by the advertising industry through the Advertising Council or some other such organization, utilizing all consumer media to promote respondent cooperation with bona fide research services. The schedule of advertising and promotion could be established and supervised in each of the media so that no one station or magazine would be able to take advantage of its promotion. Of course, respondents would have to be protected from charlatans and others who would use surveys as camouflage for other activities. But the end results should provide sample populations that are much more representative than those presently available.

Since the problem of cooperation or noncooperation is inherent in all survey research, this type of campaign would be a service to both the seller and user of research. However, the benefits go beyond accuracy. Better cooperation rates would lower the costs of research considerably. With this saving, hopefully, more studies would improve methodology.

Store of Methodologic Information

This leads to the second part of my plan—a Methodology Information Bank. With the ARMS Study as a basic information source, I propose that the industry establish a Methodology Information Bank (MIB), into which all rating and research services could contribute and withdraw methodological information. I recognize that we have problems on exchanging information and trade secrets. But in research methodology, how much secrecy is there? Aren't the problems more likely to be a lack of study replication, lack of follow-up, and lack of adequate analysis and evaluation? With a Methodology Information Bank, a study would be reviewed and evaluated on its merits, but it would also be evaluated in the light of our previous knowledge, as maintained in the computer. As more studies are conducted, the data would be added to our memory bank. The totality would be available constantly for evaluation and analysis.

For example, with such a bank, and with proper analysis and evaluation, we might be able to determine more appropriate and exact weighting techniques for our not completely representative surveys. At least we might be able to develop statistical weights beyond the obvious ones of age, sex and size of household, which affect viewing, listening and reading habits. Perhaps, too, this bank might be the focal point for study of all media—how they work, how they interrelate with each other, and the degree to which frequency plays a part in the communications process. At any rate, the use of Methodology Information Bank would allow us to utilize our combined experience to improve our research and our decisions. But perhaps the most important part of such a bank would be the revitalization of present research.

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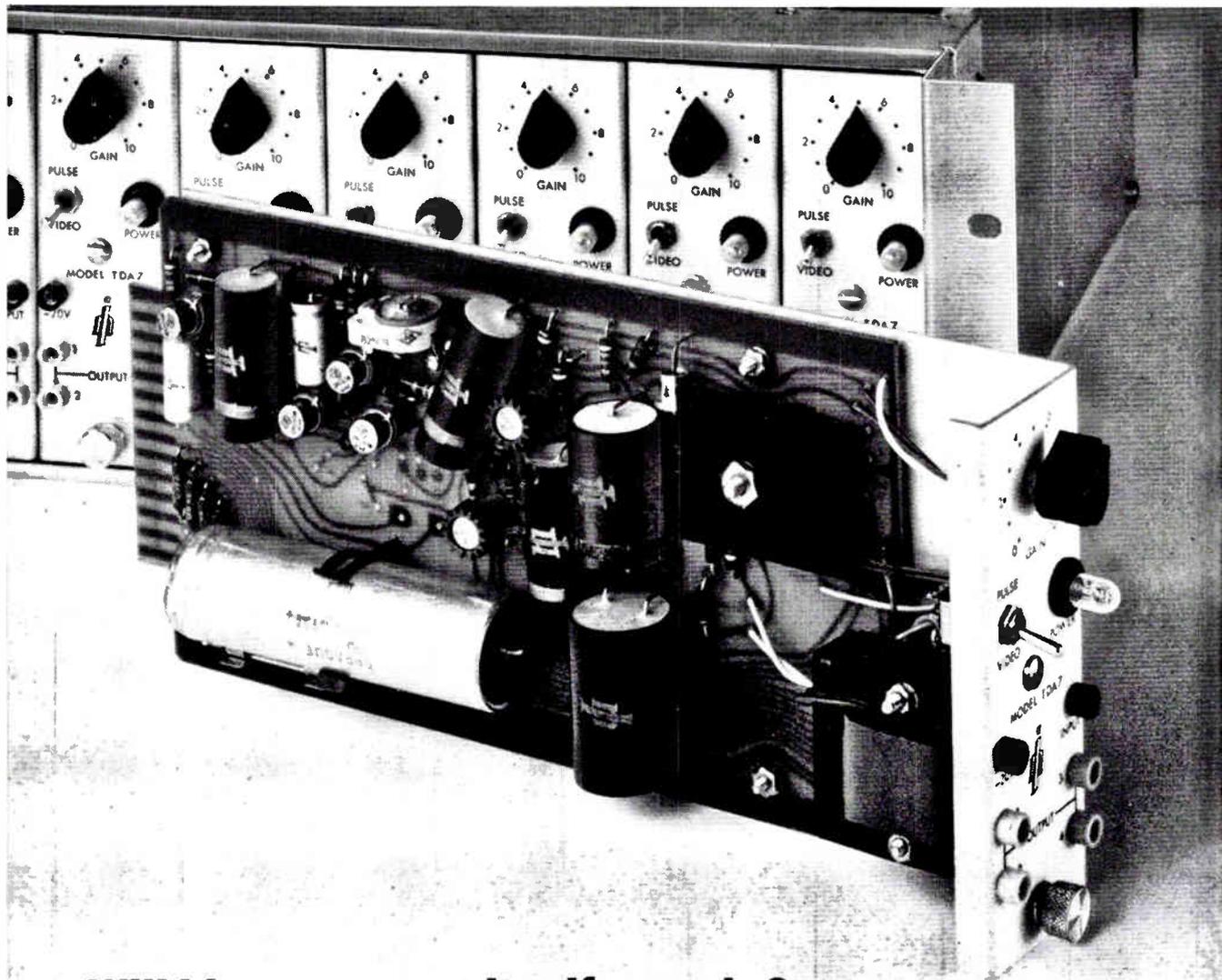
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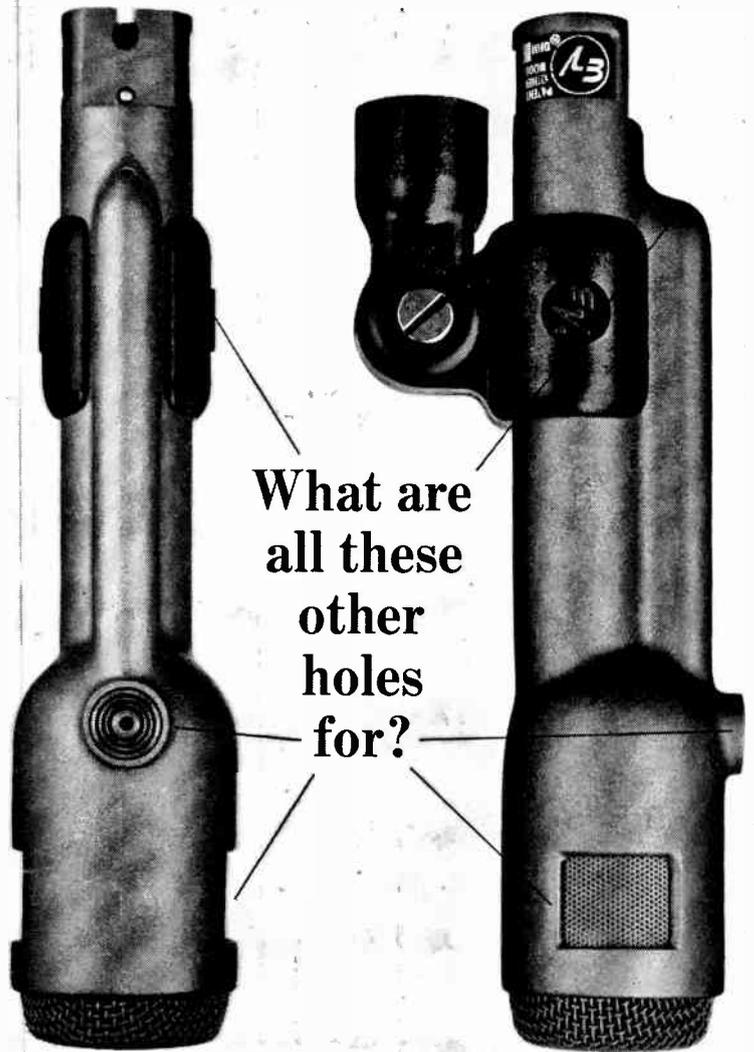
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