

TV Communications

The Professional Journal of Cable Television

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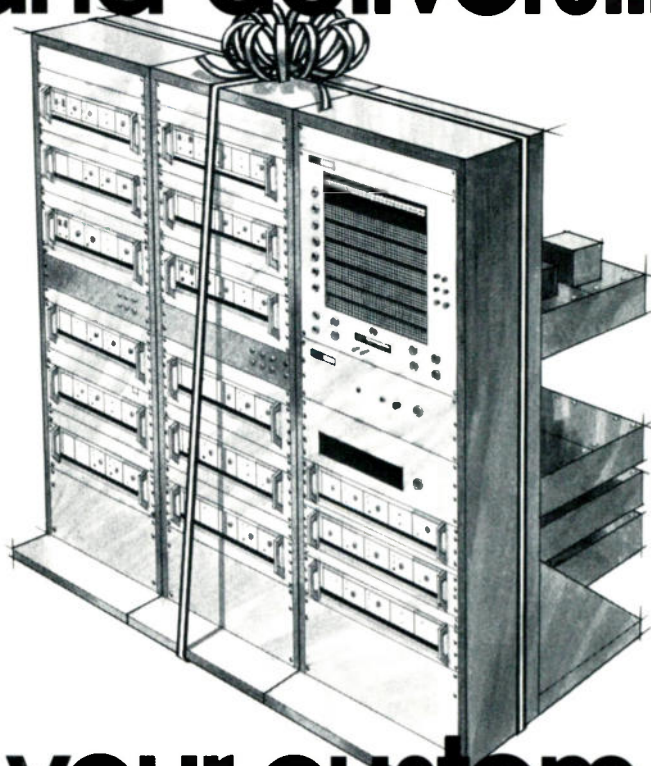
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- Senate Bill 2015
- Copyright and Cable
- Cablecasting from the Hill

plus

- Western Show Preview

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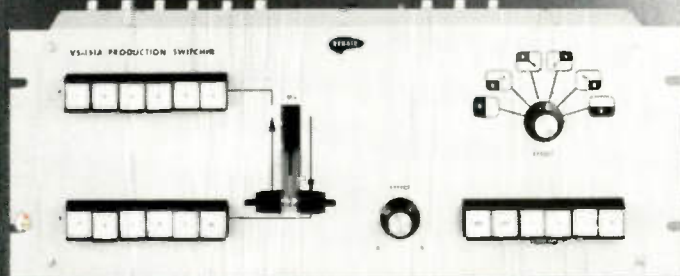


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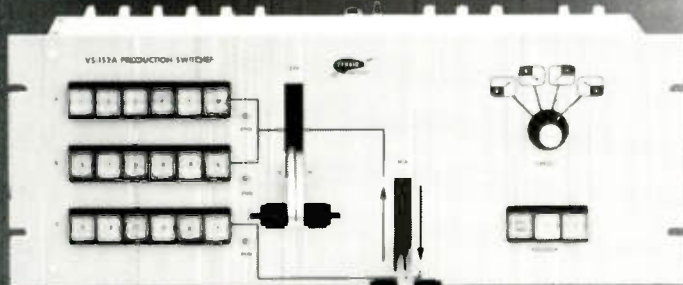
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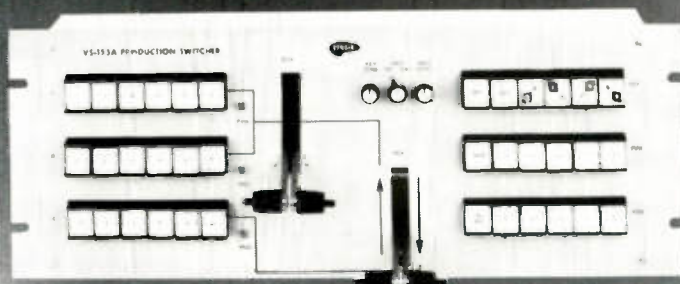
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NOVEMBER 1973, Volume 10, Number 11.

TV Communications

The Professional Journal of Cable Television

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Published by: **COMMUNICATIONS PUBLISHING CORPORATION**
1900 West Yale • Englewood Colorado 80110 • (303) 761-3770

Robert A. Searle, President; Robert Titsch, Senior Vice President and Treasurer; Paul Sylvan Maxwell, Executive Editor; George Zervas, Controller; Jack Ekstrom, Circulation Manager. Publishers of *TV Communications*; *CATV Newsweekly Magazine*; *CATV Systems Directory*; *Map Service & Handbook*; *CATV Directory of Equipment & Services*; the *NCTA Convention Daily*; and the *CATV Product Showcase*.

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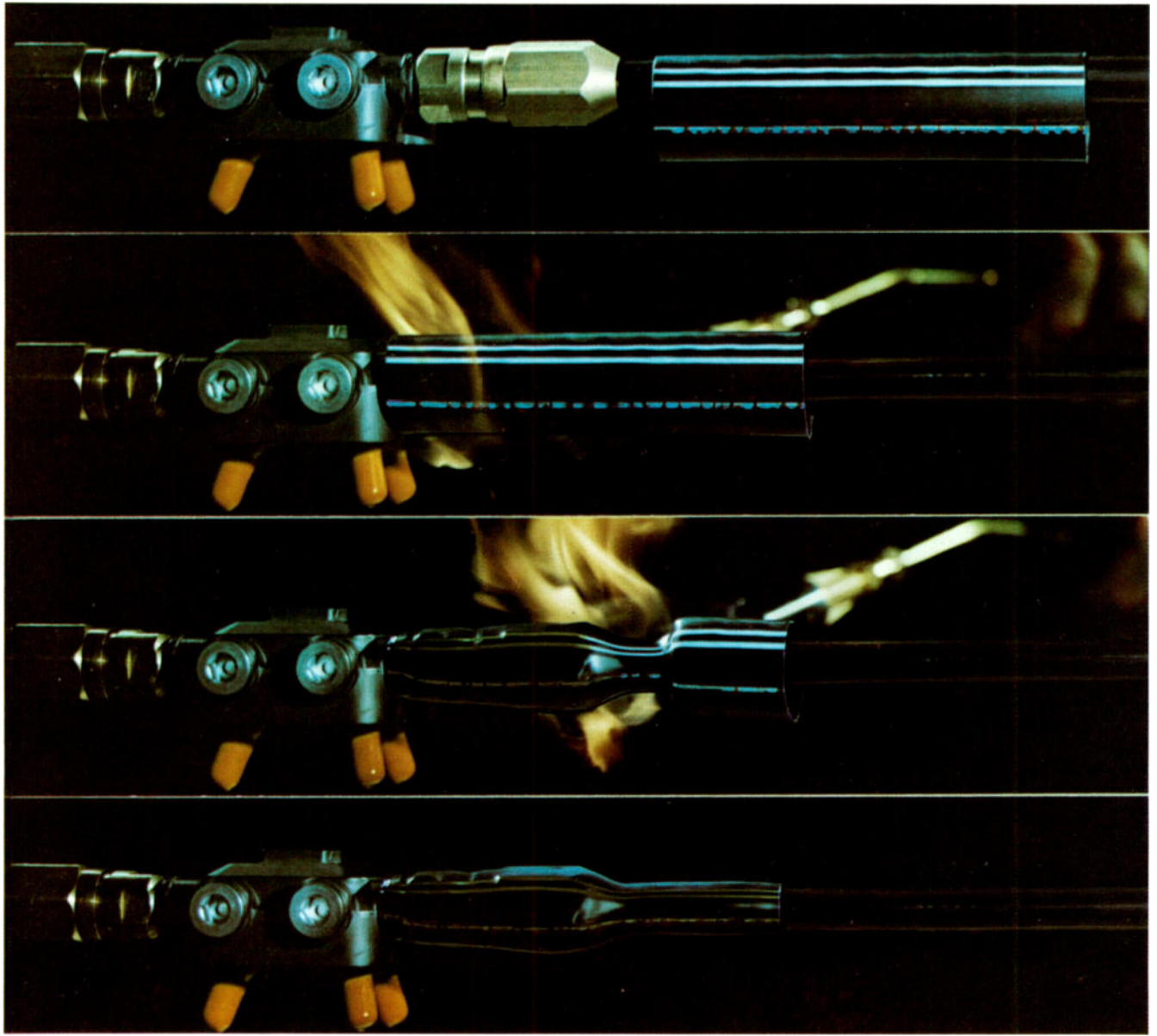
This Month's Cover...

Last June Senators Frank Moss (D-Utah), left, and Vance Hartke (D-Ind.) introduced a bill to amend the Communications Act of 1934 establishing in the FCC the jurisdiction for regulation of cable television. A few months later, it is all but forgotten. See *Languishing in the Senate: a Civics Lesson for Cable*.

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Update

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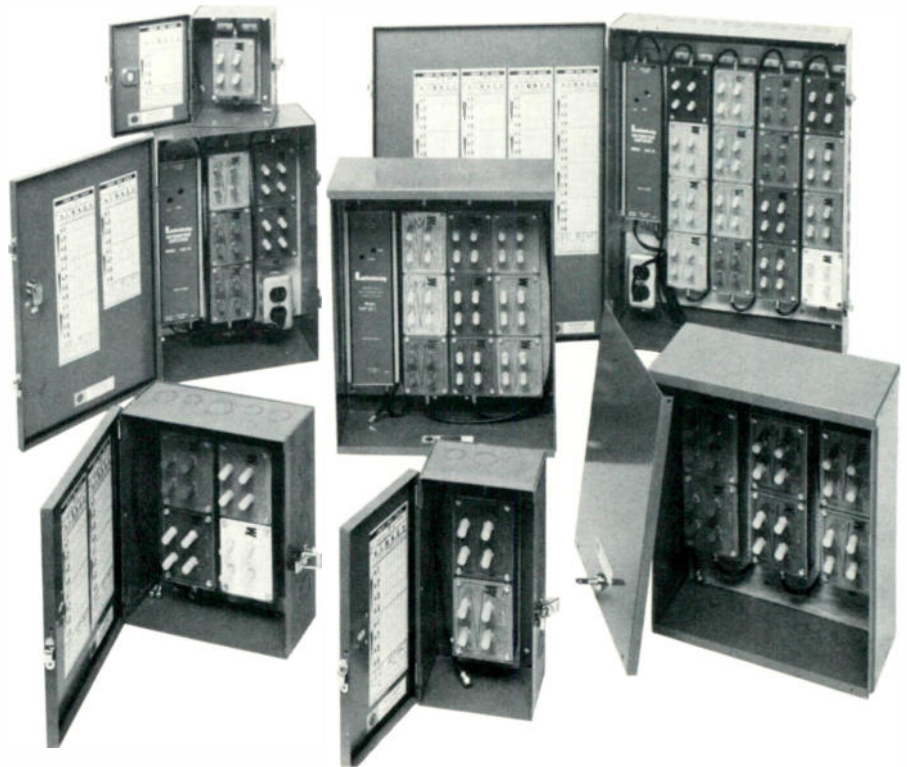
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The TVC Viewpoint

EDITORIAL



Robert A. Searle
Publisher

**"Who are they, as bats and night-dogs,
askant in the Capitol?"**

Are those really Congressmen?"

--- Walt Whitman

Well, yes, they are.

And, if you will pardon me while I join what seems to be a tidal wave of criticism about our government today, as a Republican noted in his Congressional victory statement in 1946, "Open each session with a prayer and close it with a probe."

Carl Albert's statements defending Congress notwithstanding, the men on the Hill have done little this year. And this year the cable industry could use a little action on the Hill. The President, perhaps preoccupied with a vice presidential vacancy and a tidal wave of his own, nominated an ex-broadcaster to Nicholas Johnson's "vacancy" on the Federal Communications Commission; allowed his communications czar to call cable a "parasite" on William F. Buckley's *Firing Line*; and lost his cabinet committee (perhaps they got tangled in too much wire).

I don't mean to blame Carl Albert for the Senate's sluggishness; the fine Representative from Oklahoma has enough problems in his own House. In the "upper" house of Congress, cable had high hopes for a copyright bill this year . . . or at least one reported favorably out of committee.

But, the industry will be lucky if subcommittee action is completed this year. The Senate went into hiding the last two weeks of last month and plans to end its current session in the middle of this month . . . that doesn't leave much time. And next year, next year is an election year. And just how much attention will cable get?

Not much I'll bet . . . but broadcasting might. Think of all that TV and radio time. (One bright footnote: see story beginning on page 50 about the new cable taping facilities in the House.)

So much for S.1361; what about S. 2015? Introduced by Senators Vance Hartke and Frank Moss in conjunction with last June's National Cable Television Association meeting in Anaheim and met with glowing words and much cheap praise, the bill has languished in the labyrinthine recesses of yet another Senate subcommittee. The bill would, perhaps, solve some of the jurisdictional problems inherent in cable's current regulatory picture. Maybe not to everyone's exact liking . . . but it would settle the question and cable could get on with something else . . . like copyright for instance.

But, the bill (see story on page 36 for a detailed look at the document and its whys and wherefores) will probably never see the light of law.

Another light will probably simply be extinguished – if the Senate Communications Subcommittee even deigns consider the nomination of ex-broadcaster James Quello to the Federal Communications Commission. But, again, delay isn't the answer. Quello needs to be accepted or rejected – and from a purely partisan cable point of view, preferably the latter.

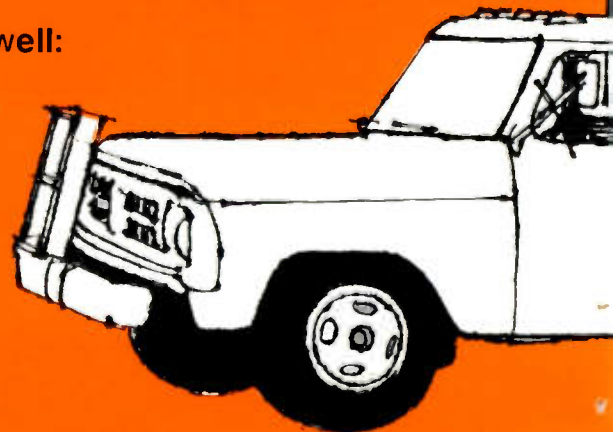
It would be nice to be surprised and have the Congress act . . . in the public interest . . . and solve these pressing cable problems.

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Perspective

on the news



Paul Maxwell
Executive Editor

Confirmation of Nixon's Federal Communications Commissioner choice, ex-broadcaster James Quello, looked dimmer with each passing October day . . . as if the Congress didn't have enough to do already (see Publisher Bob Searle's editorial on page 11), the surprise resignation of Vice President Spiro Agnew forced the political world that is Washington, D.C. into emotional turmoil and political chaos.

Just how important was a new FCC Commissioner in the face of the obvious greater national need? . . . and besides, some staffers on the Hill noted, the President wasn't in too great a hurry to get rid of Nick Johnson anyway (Perspective, TVC October '73). Array of anti-Quello forces became something next to superfluous when Agnew bombshell hit.

And, as if one Commission vacancy weren't enough, rumors continue to persist in sending Chairman Dean Burch off into another job . . . somewhere. Just before the President began his power play naming House Minority Leader Gerald Ford, an ex-football star, as disgraced and departed Spiro Agnew's replacement, speculation that Arizona Senator Barry Goldwater would be named resulted in much talk at 1919 M Street saying . . . what if, then . . . And the "then" involved Burch's appointment by Arizona Republican Governor Jack Williams, an ex-radio man, to fill out Goldwater's term . . . and have a leg up in the 1974 race. (Burch has been off and on, testing Arizona's political sands . . . but has backed off from race on his own; presumably to avoid getting knocked off in internecine party warfare.)

But, Goldwater wasn't named . . . so next date for Burch exit is on betting lines as December 1 . . .

Speaking of the Commission: National Cable Television Association board and new official small operator contingent enjoyed unprecedented meeting with full Commission. One Commissioner remarked afterward that he heard nothing new, however.

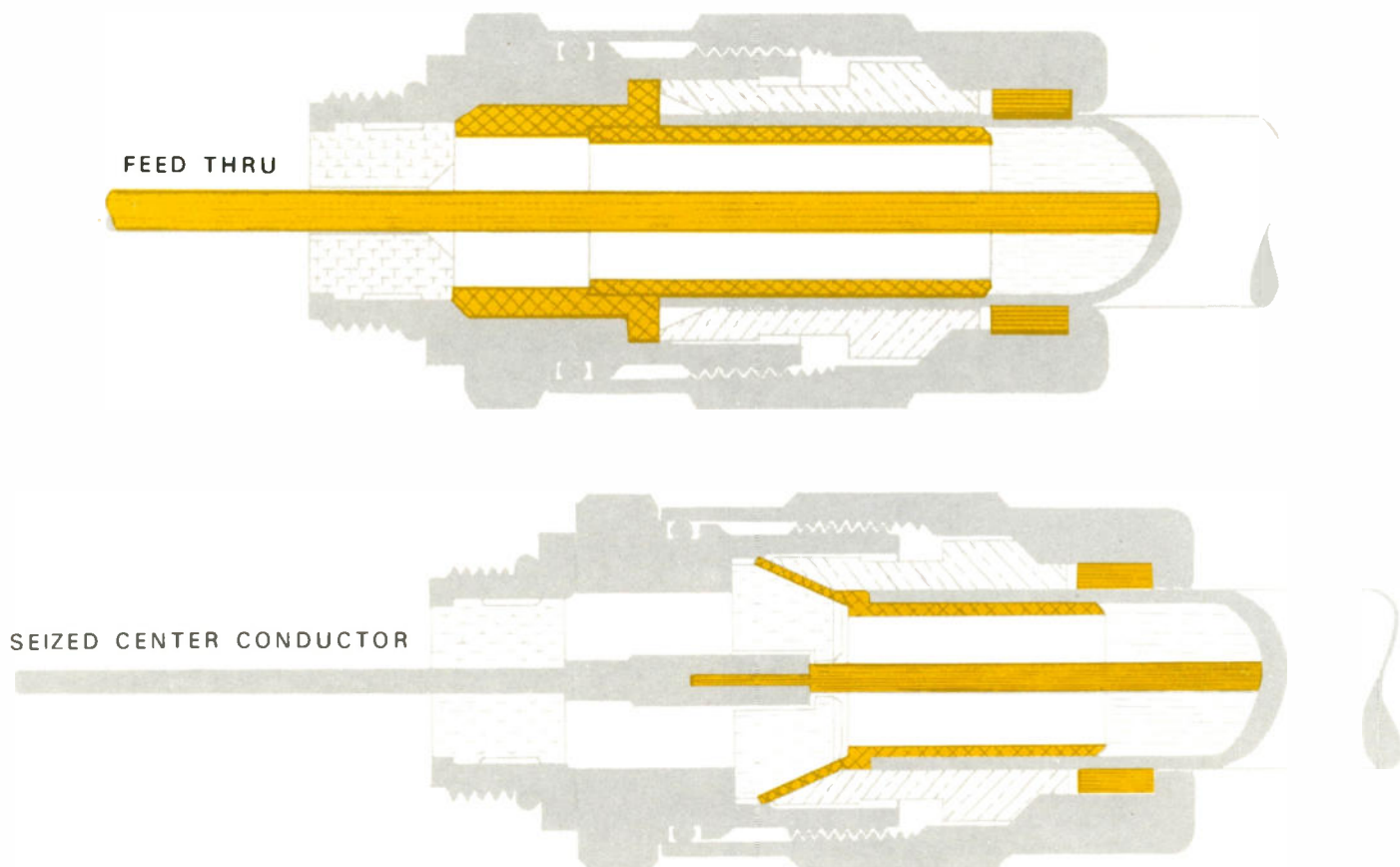
Meeting, though important simply because it happened — and happened first to cable — was disappointing because no real dialogue developed. Cocktail party for full Commission, staff and cable hangers-on in Washington was rousing success . . .

One presentation during FCC/NCTA meeting, I'm told, the case against same-day non-duplication in the Rocky Mountain Time zone amounted to a rather stilted reading of a formal position paper on the subject — quite a departure from the exchange of ideas format envisioned by Board leadership. Jim Marlow on the other hand, is said to have made a hard-hitting, clearly stated case for Federal pre-emption in the area of PUC-type state regulation.

Plus side of cable was hard to find in last few weeks . . . however — and despite rumors on both coasts suggesting that Shafer would go, Bresnan would take one giant step backward, Burt Harris would be Tele-Prompter's savior, and the whole place would abandon New York City and rebuild at H & B's old L.A. headquarters — highly placed TPT source suggested stock would be back on market well before end of October. Ever since July 13th (Friday, of course) announcement plunging TPT per share earning expectations from twenty-two to six cents, TPT management have been on the run. At press time, no word yet . . . about either "rumor."

Industry's inherent financial strength shows up other places . . . if anti-cable Elliot Richardson's Justice Department allows industry to sensibly consolidate and he leaves Viacom/CPI and Cox/LVO merger plans alone, then all will be well in cableland. Viacom/CPI would, after the merger, boast annualized revenues of \$45 million . . . about forty-five cents a share. Cox/LVO would also make good economic sense . . . expansion minded Cox could effectively build on highly-leveraged LVO's foundation (with some choice unbuilt franchises).

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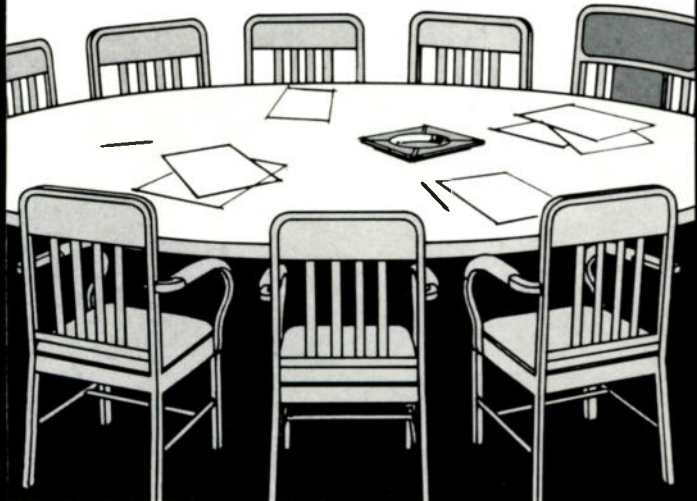
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FOCUS

... On People

Frank Webb has been promoted to Southwest Regional manager for TelePrompTer Corp. Webb was formerly the director of operations for the Southwest Region.

S.A. Rennard is the new operations manager of Warner Cable of Eastern Massachusetts, Inc. after joining Warner from TelePrompTer earlier this year.

Earl T. Ake will leave his position as manager of The Dalles, Oregon cable system to assume new duties on the Cox Cable Communications corporate engineering staff in Atlanta. Replacing Ake is John Jones, formerly system engineer of the Cox system in Astoria, Oregon. King Karamatic will succeed John Jones as system engineer. He is leaving his position as system technician of the Aberdeen system.

James J. Hamill has been named system manager of Warner Cable of Malden which he joins from Lewiston, Me., where he managed a community cable TV system.

Jay Emmett and David H. Horowitz will be new senior vice presidents of Warner Communications Inc. Emmett was formerly WCI corporate affairs vice president and Horowitz was vice president, general counsel and secretary of Columbia Pictures Industries, Inc.


Mark Savage has been named assistant treasurer and an officer of LVO Cable, Inc. Savage joined LVO in September, 1972, as an administrative assistant.

Sammons Communications, has announced the appointment of Melvin Pitts as southeastern district manager.

Milford G. Richey, previously with Collins Radio Co., is the new vice president/engineering for American Cable Television Inc.

Warner Cable Corp., has named Leonard M. Burkus as program director for eight systems in the Ohio-Indiana area.

Gridtronics, Inc., a subsidiary of Warner Cable Corp., has named Carmine D'Elia as director of operation.

Phyllis J. Thompson has joined the Anaconda cable television sales staff, working at the company's Systems Wire and Cable facility in Phoenix, Arizona. 



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CATV News Briefs

A Summary of News from CATV, the Newsweekly of Cable Television

Rumors Indicate Major TPT Personnel Changes: Although he categorically denies "all rumors", TelePrompTer President William Bresnan just might be moving west . . . to Los Angeles . . . as TPT vice president in charge of cable operations. Rumors on both coasts have it that none other than ex-Cypress, ex-Warner, ex-Harris Cable Burt I. Harris will be the new TPT president. Four TPT executives in the home office have been given either/or choices involving moving to system operations or leaving. One official without even "either" will take "or" and leave . . . becoming an ex-chairman as well as an ex-governor. TPT did indicate that the full financial disclosure, required by the Securities and Exchange Commission before it allows trading in TPT stock to resume, will be forthcoming shortly. Current suspension of trading runs through October 16. In TPT's other light, the Supreme Court granted a court review to TPT concerning the copyright suit brought against TPT originally in 1964 by CBS. In its action the court consolidated the appeals, granted to NCTA the amicus curiae role in the proceedings that the association had sought, and reserved one hour for oral arguments on the case to be held on an as yet undetermined date. (CATV 10/15 p4, 7)

Small Op/Pay-Cable Programs Approved: The National Cable Television Association board of directors unanimously approved two association programs: one to give small independent operators a greater say in association affairs, and another to counter NAB's anti-pay cable campaign. The 15-point small/independent program was developed by the association's small operator committee. The approved program will designate the small system operator committee as a "small system operator advisory board" empowered to act as an ombudsman for small system operators and act as advisor to the NCTA board on small system concerns. The small/independent program will also provide for the appointment of two members of the small operator board as liaison to the board to participate in all meetings, and present recommendations of small systems; appointment of small system members to selected NCTA committees, with appointees to serve as full voting members; and encouragement of state and regional associations to participate in support of travel for small system participants. The program calls for other measures which NCTA chairman Amos Hostetter said were "concrete results." On the pay-cable front, the NCTA board approved a program which calls for the spending of up to \$250,000 to counter recent and projected attacks on pay-cable. Although actual appropriation of the money is subject to further detailed budget, the board did appropriate \$30,000 for special publications on pay-cable, NCTA's recently initiated program of television station monitoring for possible fairness doctrine violations in advertisements or editorials on-pay cable. (CATV 10/8 p3)

Illinois Supreme Court Rejects ICC's Jurisdiction: The Illinois Supreme Court upheld a previous McHenry County Circuit Court decision and rejected the Illinois Commerce Commission's contention that cable television is a public utility and should be regulated by the ICC. Justice Charles H. Davis, writing for the court, reviewed the ICC arguments to show the similarity between cable communications and communications by telephone and telegraph. The Justice rejected these arguments — based on the financial, operational, and telecommunications similarities of cable to telephone service, and found rather that "service by television as well as radio is more akin to that of theatres, music halls and newspapers than to telephone." Therefore, the Justice reasoned the ICC had no right to take jurisdiction. The ICC does have the option to seek a rehearing within 21 days of the last decision. (CATV 10/8 p7)

CATV News Briefs

CCTA Reports on Pole Profits: Figures showing pole attachment rates charged by telephone companies will ensure them a profit in excess of 2000 per cent were contained in a report prepared by the Utility Relations Committee of the California Community Television Association. The report reveals that the avoidable cost to the utilities of cable television use of its poles are estimated not to exceed the sum of 25 cents per pole per year. But California telephone companies announced to cable operators in April that they were doubling pole attachment rates from \$3 per pole per year to \$6 per pole per year. CCTA believes that the avoidable costs to utilities of having coaxial cable attached to its support structure, plus a reasonable business profit, is the only fair amount a CATV operator should pay. (CATV 10/8 p8)

NCTA Files Against Subscriber Fees: The National Cable Television Association filed a freedom of information case with the FCC in its latest attack against the proposed ten cent/subscriber/year increases in subscriber fees and, indirectly, against the whole concept of fees based on subscriber totals. The action came after the NCTA examined FCC documents and information made available to the Association last July. The new information, NCTA says, "provides the clearest information yet that the Commission's proposed schedule of a 40 cent annual subscriber fee for CATV system is both totally without authority under Title V of the Independent Offices Appropriation Act and arbitrary and unreasonable in its application to CATV." NCTA argues that the FCC fees do not correspond to any value realized from Commission regulation by a specific, identifiable individual. The association also questions the financial necessity of fees since the maximum fees that can be charged to an industry is the total direct and indirect cost of its regulation. Therefore, NCTA says that the national subscriber total and the fees should vary inversely. The FCC's means of allocating to the different industries under its jurisdiction so-called "unallocated" costs is also a question in the NCTA case. For all of these reasons, NCTA concludes that any rule-making increasing fees should be held in abeyance until the Supreme Court decides the legality of the fees; that fees, should they be deemed legal should not be increased; and that fees, should they be deemed both legal and low, should be increased according to the value of the recipient criterion "through a grant fee payable by CATV systems granted certificates of compliance." (CATV 10/8 p9)

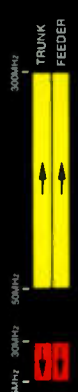
Wide World News Premieres: The nation's first regularly scheduled 45-minute prime-time cable network program of international and national news began Oct. 1 with Ben Grauer and Angus Corley on "Wide World News". The program, produced "live" and in color by TelePrompTer Manhattan CATV Corporation for networking to other cable television systems across the country, will be seen Monday through Friday at 9:30 to 10:15 p.m. The program will start with a network of over 25 cable television systems in New York State, New Jersey and Pennsylvania, including four of the five largest CATV systems in the U.S. and totaling over 3000,000 subscribers. Other cable TV systems across the country will be added to the network in the future. (CATV 10/8 p11)

Financial Developments: Communications Properties, Inc. (CPI) has reported increased revenues of \$10,084,985, compared to \$8,633,248 for the first nine months of fiscal 1972. The company's income before extraordinary items was \$463,341, or \$.11 per share, compared to last year's \$227,031, or \$.05 per share . . . LVO Cable, Inc.'s internal growth and line construction continued during the first quarter of the current fiscal year. In addition, consolidated revenue for the first three months ended August 31, 1973, increased 25 per cent to \$2,168,000 from \$1,736,000 for the comparable period one year ago. (CATV Oct. issues)

BIDIRECTIONAL CABLE TV SYSTEMS

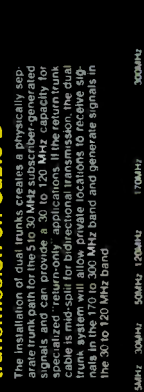
SINGLE TRUNK SINGLE FEEDER SUB-SPLIT

Bidirectional services can be provided via a single sub-split cable. Return signals are assigned to the 5 to 30 MHz band and forward signals are assigned to the 170 to 300 MHz band.



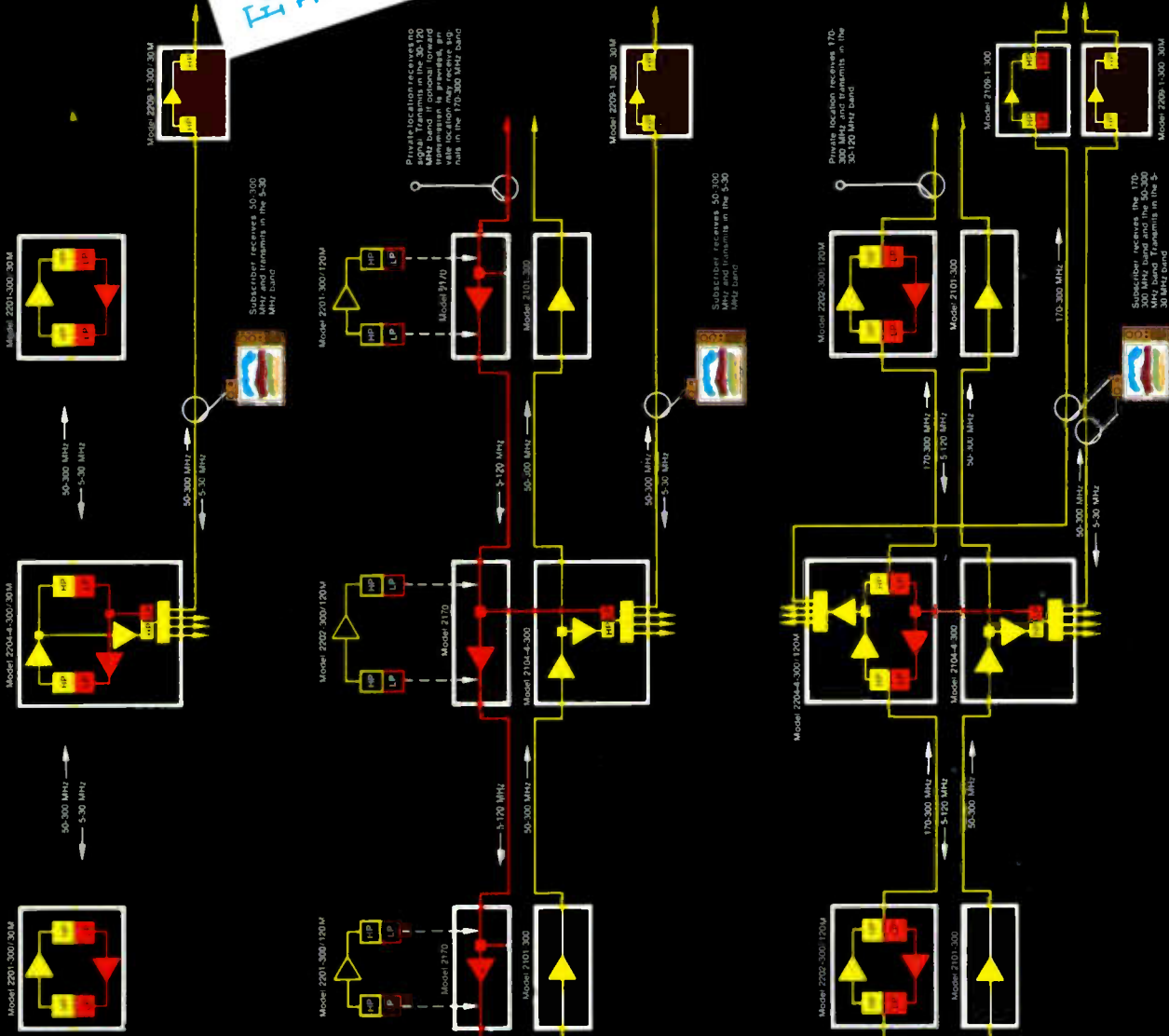
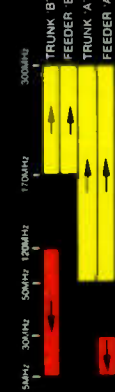
DUAL TRUNK SINGLE FEEDER MID-SPLIT

The installation of dual trunks creates a physically separate trunk path for the 5 to 30 MHz subscriber-generated signals and a separate trunk path for the 170 to 300 MHz return signals. In this application, the dual trunk system will allow private locations to receive signals in the 5 to 120 MHz band and generate signals in the 170 to 300 MHz band.



DUAL TRUNK DUAL FEEDER MID-SPLIT

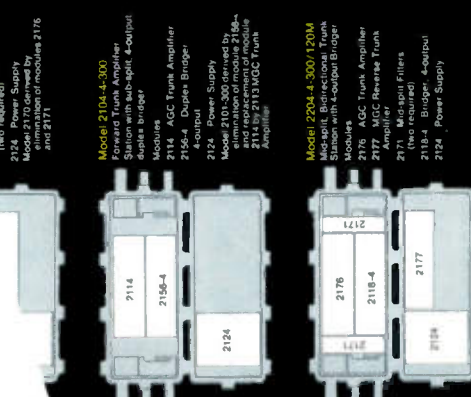
For the subscriber served by both feeder lines, the mid-split dual trunk dual-feeder system provides forward signals in the 5 to 30 MHz band and return signals in the 170 to 300 MHz band. Specialized locations may also receive the 170 to 300 MHz band and transmit in the 5 to 120 MHz band.



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Is it true that Paul has his fangs dulled every week? Is it true that Titsch and Searle have to chain him to his desk when there's a full moon?

At any rate, please keep up the good work, in spite of your management. Both Dick Peterson and I enjoyed spending what little time we had with you, and we look forward to additional conversations in the future. I hope we will have a chance to get together at the CCTA show in Las Vegas this coming November.

Best personal regards,
Alan H. Greenstadt
Vice President
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Alan, your assessment of the situation is quite accurate but you forgot to mention one other thing. I also read everyone's mail... and I'll see you in Las Vegas.

—Paul

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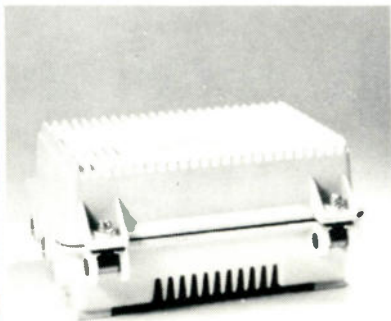
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Management Guidelines

Developing Your Potential

Have you ever thought about what qualities you need to develop to build your management potential? How does management decide you are the one to be chosen for supervisory responsibilities? You are constantly being evaluated not only by what you do, but also in the way you do it. Your effort, your attitude, your general approach to your responsibilities that have been assigned to you all add up in the final decision. What are the elements looked for? Here are several worth thinking about.

The first is courage, not the courage required to ask for a raise or to speak up in a meeting attended by executives. But the courage to do your best despite the effort, patience and hard work it requires, and to bounce back after setbacks and rebuffs. This kind of courage enables a man to put his best into a project, even when he knows he may not get credit for it, this time.

The next is open-mindedness. Give a sympathetic hearing to the suggestions of those to whom you look for direction. No man has a patent of ideas. A manager gets his information and ideas from all sources by keeping an open mind to ideas and suggestions; he utilizes the best thinking of many minds.

The third is humility. Don't think you know it all. Don't scorn the opinions of fellow workers, or a new employee who has worked for similar companies as yours. Respect the ideas of others and they will respect you.

Be thorough, finish a project to the best of your ability. Don't give it to your superior in

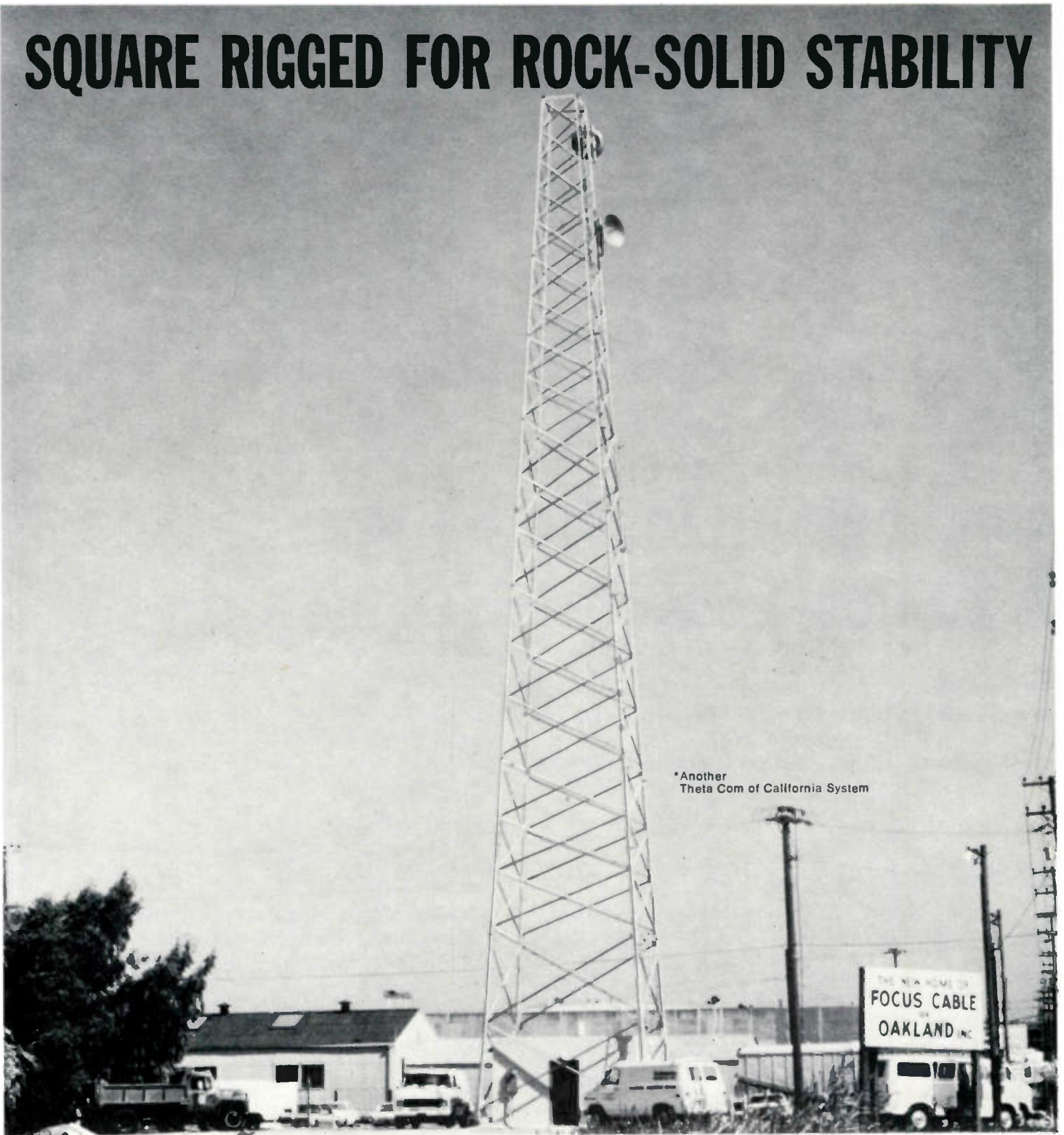
such a haphazard shape that it would have been easier to do it himself. Let every assignment be viewed as an opportunity to prove you are bigger than the project assigned, not that the assignment is bigger than you. Don't leave loose ends. They mark you as an amateur.

Be brief. Get to the point. Think your problem through before presenting it to your boss. Boil it down. Get to the heart of the matter. There is nothing more annoying to a busy manager than to listen to a subordinate's long-winded description of a minor departmental problem. His only reaction can be to doubt that the subordinate would be able to handle the complexities of a more responsible job. His impatience will carry over to the next time you come in with an idea or suggestion. Be in a position of having him look forward with interest to your visit, not apprehensive that you will take too much of his time and say nothing.

Finally, if you are intent upon building your management potential you will look, listen and learn. Study the activities and performances of those above you, who were perhaps promoted instead of you. What have they got that you haven't? More education? Perhaps that can be remedied. More enthusiasm? Maybe your blasé attitude is only on the surface but your boss doesn't know that. More job skill? Then it's time to start acquiring them. More responsibility? Then assume more and do a job that will make you automatically considered.

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Languishing in the Senate: A Civics Lesson for Cable

Remember those diagrams in social studies showing how Congress passes a bill? Well, here's a bill that made it into the hopper (S.2015) . . . and here's a lesson showing how a good cable bill **doesn't** get passed.

*By Jack Burke
Washington Bureau Chief*

On June 18, 1973, Senators Frank Moss (D.-Utah) and Vance Hartke (D.-Ind.) introduced in the Senate a bill "to amend the Communications Act to express the intent of Congress to establish in the Federal Communications Commission the jurisdiction for regulation of cable television systems." The bill, which was given the number "S. 2015," enumerates the areas of regulation in which the FCC is to assume full jurisdiction, and the areas of regulation "which are proper matters" for the states, territories and possessions of the United States, a political subdivision of any of the foregoing, and the District of Columbia. The FCC and jurisdictions lower than the states would, according to S. 2015, receive or maintain most of the

regulatory pie; the states, though a definitional question looms on the extent of their proposed role, will maintain next to nothing.

June 18, coincidentally enough, was also the opening day of the National Cable Television Association's Annual Convention. In Anaheim, the introduction of S. 2015 was applauded, conversed about, and soon forgotten.

Washington Reaction

In Washington, particularly in a Senate with such matters as defense spending, inflation, fuel shortages, Watergate and Presidential vetoes on its collective mind, the introduction of S. 2015 went unnoticed. The bill currently languishes in the Senate Commu-

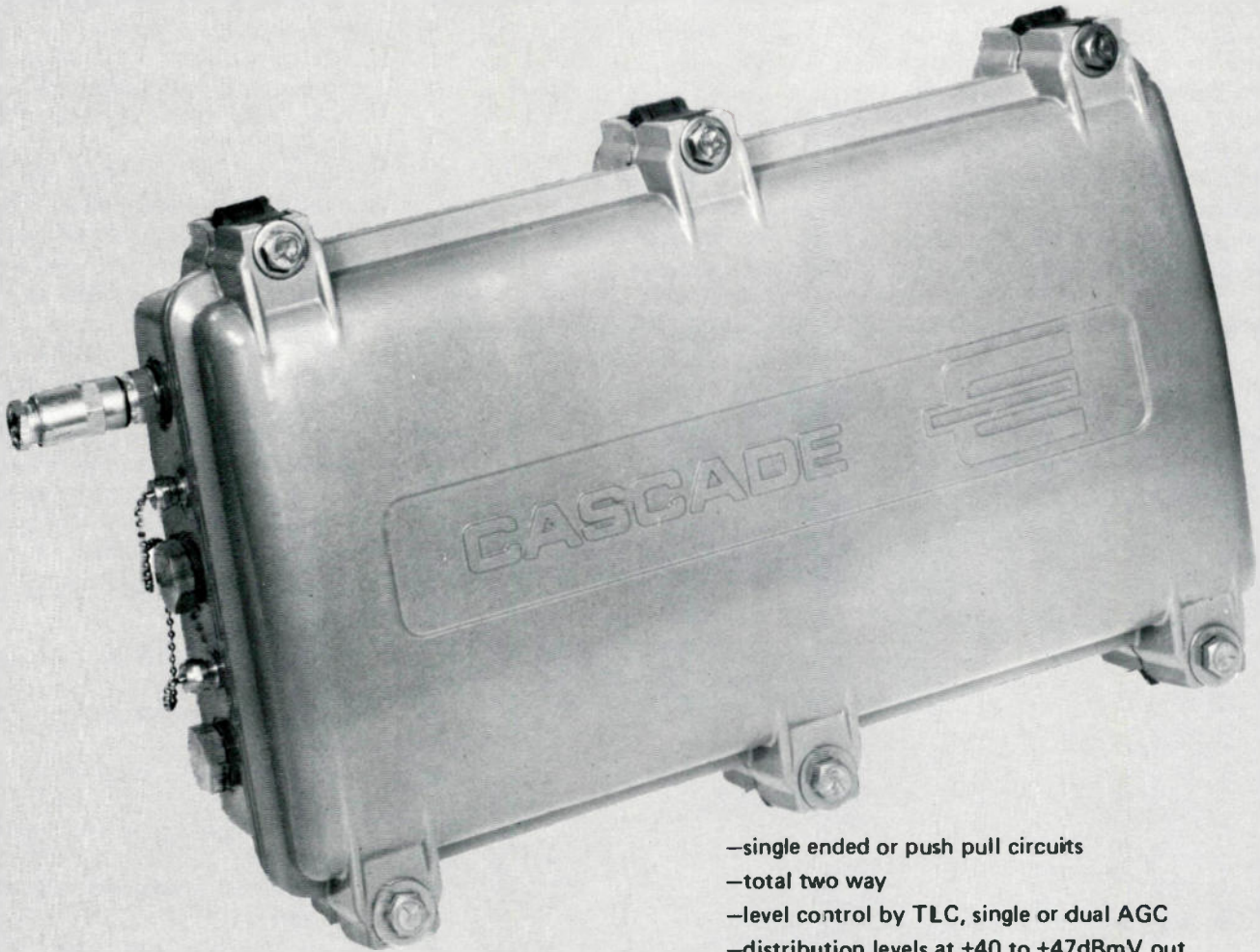
nications Subcommittee with little chance of action on it occurring this year or at any time early next year. A companion bill has not been introduced on the House Side.

S. 2015's Appearances

Since its June 18 introduction, S. 2015 has surfaced only thrice: once, in July, during FCC hearings on pole attachment agreement, once in August, in an article in the *National Journal*; and once in September in the minority report of Federal/State-Local Advisory Committee.

In his brief remarks accompanying his introduction of S. 2015, Senator Moss described the "attempts to impose entirely

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unsuitable forms of regulation on cable television" which have resulted from the FCC's non-preemptive cable regulatory program. The great latitude left to the local governing bodies, especially the states, by the FCC's non-preemptive stance, poses, according to the Senator, not only the threat of potentially harmful regulatory schemes, but also the likelihood of a "total lack of regulatory uniformity between jurisdictions." In response to these dangers, Moss urged his colleagues to seize the

opportunity afforded by his and Senator Hartke's bill to clearly delineate "the proper role of Federal, State, and municipal regulators...so that the optimum development of cable television may proceed."

Delineation of Powers

S. 2015 would accomplish its delineation of regulatory powers, first, by amending Section 3 of the Communications Act of 1934

to define a CATV system as "any facility which, in whole or in part, receives directly or indirectly over the air, and amplifies or otherwise modifies the signals of the Communications transmitting programs broadcast by one or more television and/or radio broadcast stations and distributes such signals by wire on cable to members of the public."

Beyond its simple, yet all encompassing definition of a CATV system, S. 2015 would amend Title III of the Communications Act by inserting a new Section 331 to read:

"Sec. 331 (a) The Commission (FCC) shall have plenary regulatory jurisdiction over CATV systems. This jurisdiction shall include such areas of regulation as the Commission determines are in the public interest under this Act, including, but not limited to —

- "(1) the origination of programming;
- "(2) the maintenance of technical standards;
- "(3) size and membership restrictions;
- "(4) pole and duct rates and practices;
- "(5) the setting of franchising standards;
- "(6) use of nonbroadcast channels, and
- "(7) coordination of interconnection and technical compatibility

Other Regulations

S. 2015's amendment of Title III continues to permit the FCC to authorize regulations of other areas of cable operations by lesser jurisdictions. According to the bill, areas of regulation which are a proper matter for the states are "supervision and enforcement of the franchising process; safety regulation; enforcement of anti-tampering regulations; and acquisition and use of easements."

Areas of regulation deemed to be properly the functions of jurisdictions lower than the states by S. 2015 are the authority to award, revoke and regulate the transfer of franchises; the supervision of construction and perfor-



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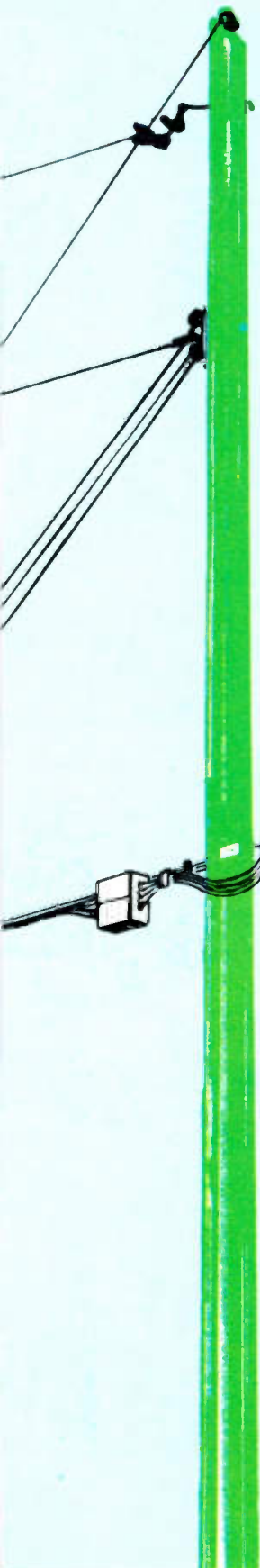
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mance; and the supervision of rates and charges to subscribers.

Under S. 2015, the FCC would have the power to review any and all laws, regulations and ordinances concerning CATV passed by states, counties or cities. States would have to submit such CATV statutes to the Commission for approval prior to putting such statutes into effect. Ordinances adopted by lesser jurisdictions would be submitted to the Commission for approval as part of the certification process for CATV systems.

Supervision Question

Many, if not all, in the CATV industry, would, and did in Anaheim, applaud the thrust of S. 2015, particularly the limits placed on state regulation by the bill. But a definitional question, surrounding the "supervision and enforcement of the franchising process," a role ascribed by the bill to the states, does exist. Although the bill clearly grants to the FCC

the power to set franchise standards and, to local governments, the power toward franchises, one may question how and to what extent states are to be involved, as supervisors and enforcers, in the franchising process.

Minority Argument

This question led Federal/State-Local Advisory Committee members, those who wrote the minority report, to charge that the majority in favoring an FCC-most local government approach to regulation was withdrawing from industry support of the three-(although two and a half might be more appropriate) tier approach of the Moss-Hartke bill. The minority, who themselves favored a federal hands-off approach to state regulation and eventual, when necessary, FCC-state-local cooperation, based their argument on the August *National Journal* article, which itself described S. 2015 as based on NCTA recommendations.

Constitutionality is another problem posed by S. 2015. The Congress can only "deal back" authority one level, to the states. It is then up to the states to distribute authority as they see fit. The language of S. 2015 clearly recognizes, in phrases like "express the intent of Congress," this problem. But such language does not eliminate the possibility of Constitutional challenges to bill, should it be passed, and necessary linguistic sacrifices to the Constitution dilute the bill's potency.

Pendancy of Bill

A third, though minor, problem with S. 2015 is the mere fact of its pendancy. During July hearings on the FCC's right to assume jurisdiction over pole attachment agreements, a power explicitly granted to the Commission by S. 2015, one Commissioner asked a cable witness why he sought FCC assumption of jurisdiction when a direct Congressional mandate to

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	RFI REJECTION (dB)* Test No. 2A—connectors with stainless steel sleeve, 6 month environmental.	—	121	132	132	128	129

* Average of connectors tested (worst condition: standard models 95 dB; connectors with stainless steel sleeve 108 dB).

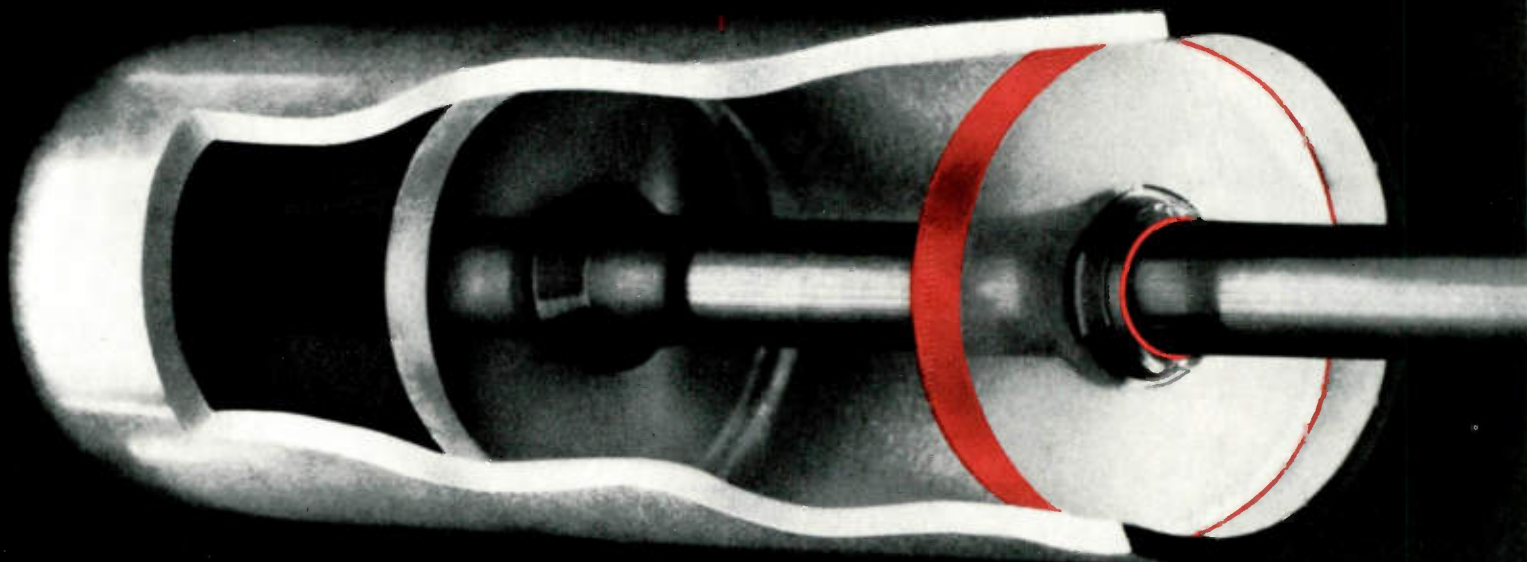
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**People start pollution.
People can stop it.**



Senators Frank Moss, left, and Vance Hartke discuss the bill they introduced, S. 2015, which would establish in the Federal Communications Commission the jurisdiction for regulation of cable television systems.

the FCC to do just that was pending. As the witness responded at that time, and as other witness may respond to future questions on the pendency of S. 2015, the imminence of legislation has no legal bearing on existing law. The curious Commissioner eventually voted in favor of the FCC assumption of jurisdiction over pole attachment agreement.

Questions May Arise

Questions similar to the one asked at the pole attachment hearing are likely to arise during the next year, since action on S. 2015 is not expected for at least that

long. And FCC consideration of the FSLAC recommendations will serve as one of the forums in which those questions arise.

Adoption Possible ?

Washington observers the more pessimistic, at least, do not think that the FCC will adopt the FSLAC recommendations on a blanket basis, though inroads may be made in individual areas on an ad hoc basis. FCC inaction coupled with Congressional inaction on S. 2015 can only result in the continuation of the problems described by Senator Moss when he introduced S. 2015. fvc

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Cable and Copyright: The Victor Belongs to the Spoils

Like F. Scott Fitzgerald's beautiful "Damned", no victor is likely in the struggle between the cable industry and copyright owners. The Congress postures, Justice gets friendly, the Court says "we'll look," MPAA struts, NCTA nods . . . but the issue remains moral.

By Paul Maxwell
Executive Editor

"Copyright law revision demands of any proponent a calm head, a delicate sense of balance and infinite patience."

Bud Hostetter, the Chairman of the National Cable Television Association didn't say that; Barbara Ringer, assistant registrar of copyrights did. And she understated it . . . as everyone in cable television knows today. Nothing much has changed since Dan Lacy, writing in *Saturday Review* in 1971, noted that, "Although

Congress is bored with copyright, there are few challenges before it that are more important for the long run."

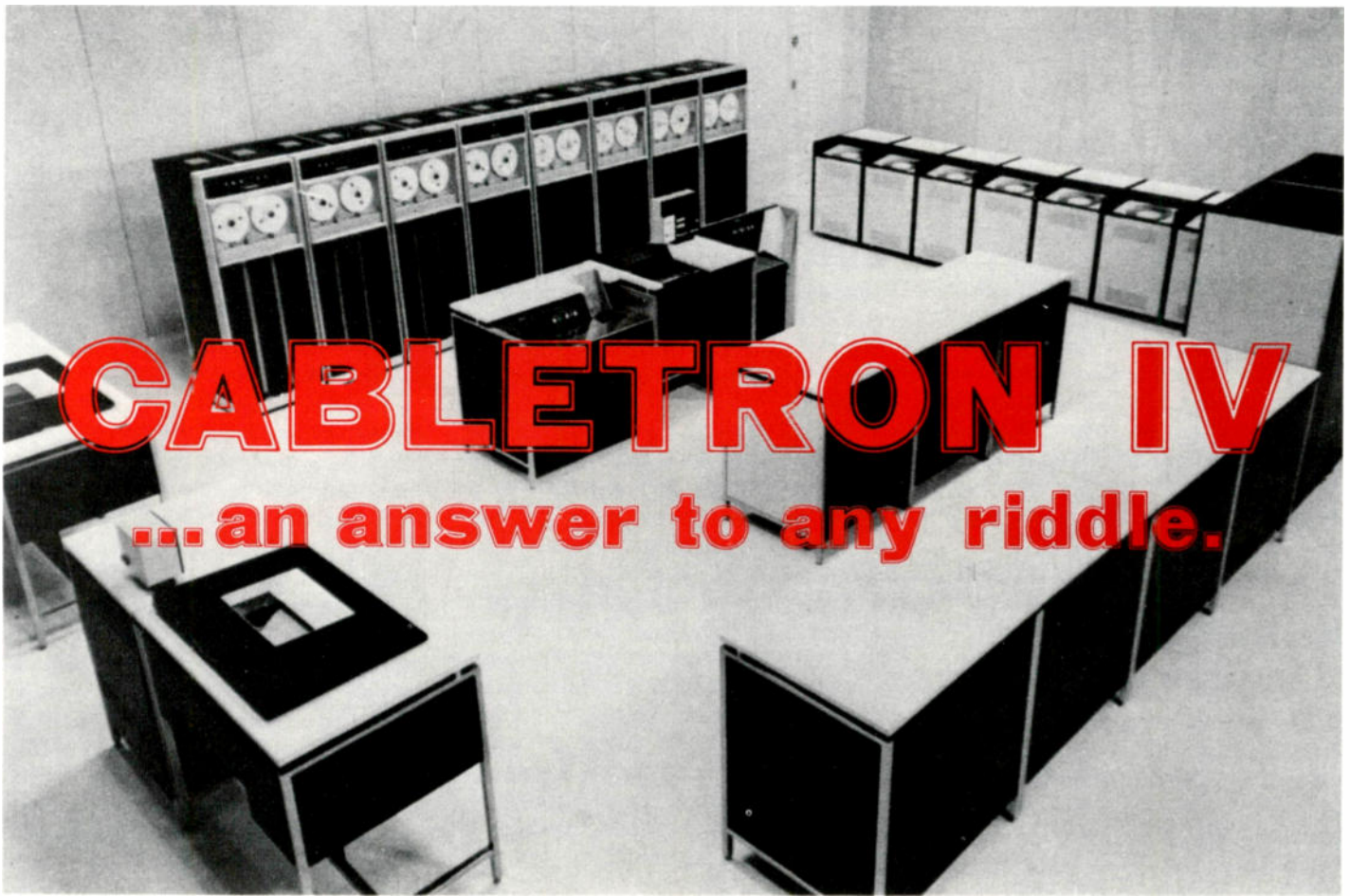
During America's first century, the copyright law protected only Americans . . . Charles Dickens once wrote a friend of his to announce with some surprise that an American publisher had sent him a royalty check. "What a fine, what a generous, what an un-American thing for him to do!" Dickens exclaimed. Just like in

Russia and China today, foreign authors were not protected . . . only after years of appeals from American authors, led by Mark Twain, did Congress in 1891 reluctantly allow foreign writers to get an American copyright for their books . . . but only if their works were simultaneously published in America.

After the turn of the century, with new found, technological miracles such as the phonograph record, motion pictures and wire



Senator John McClellan, right, chairman of the Senate Judiciary Committee's Subcommittee on Trademarks, Patents and Copyrights listened to two days of testimony covering major changes in the copyright environment. Day one was devoted to exemption from duplication for schools and libraries. Day two saw all those concerned over copyright liability for cable television pleading their respective cases before the subcommittee. George Barco, left, on behalf of small system operators, called for exemption based on gross receipts.



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recordings, Theodore Roosevelt, in the waning months of his presidency, cracked his robust whip and personally forced through Congress the Copyright Act of 1909.

Since then, virtually nothing has been accomplished save gnashing of teeth, rending of paper and figurative wearing of sackcloth and ashes (can anyone, anyone! picture the Motion Picture Association of America's Jack Valenti in anything but a knit suit?). Almost sixty-five years later we still function under that outmoded law . . . "a law so full of technical requirements, so arbitrary it becomes a trap for anyone but a highly competent copyright attorney."

Nineteenth vs Twentieth

Since the 1920's, elements of the Congress, prodded by both artists and users of copyright material, have talked — *ad infinitum* — about the need to update the 1909 law. Yet it was not until 1965 that the Congress actively, or more specifically what passes for actively in the Congress, took up the issue. Indirectly, since 1962, Congress has had to face the problem of not enacting a revision bill by regularly granting interim extension periods on works first published during the 1906-1914 period.

What has been clearly needed is a copyright law that applies to the communications media and technologies of the twentieth, indeed the twenty-first, century rather than a law grounded in the last technological breakthroughs of the nineteenth. Indeed, the modern day phenomenon found in every two-bit bar, the juke box, is exempt because that early day Congress exempted the "non-public performances" that required a penny be inserted in a slot . . . at which time the big spender could hear a scratchy rendition of his favorite tune, through primitive earphones, from a cylindrical recording.

The Congress in 1965 had introduced to it a copyright bill. There followed, not quite immediately, months of hearings, some highly

technical, others unbelievably impassioned: "More than 150 witnesses testified, each with his own particular interest: authors, publishers, composers, artists, book manufacturers, printers, union representatives, record company executives, broadcasters, film producers, churchmen, librarians, teachers, archivists, historians, band leaders, tavern keepers, singers, not to mention professional team directors, producers of high school annuals, and the operators of an amusement park."

In 1967 that bill, with minor changes, passed the House of Representatives accompanied by a brief debate. A solution to the copyright problem seemed at hand.

But, several things happened: Performers renewed their efforts to have the law recognize a rendition equally with the creation of a musical work; librarians abandoned fair use in favor of total exemption; computer people suddenly realized the existence of copyright; and "most important of all, cable television came on the scene."

The Cable Question

Most of the other problems involved in finally producing an acceptable copyright law are relatively easy to solve . . . only the question of cable's copyright liability remains. And that question is far from a simple one. There are, essentially, three approaches to a cable/copyright solution . . . a review of them is helpful in understanding the current Senate version of the copyright law (S.1361) and the reasons for the seemingly interminable delays:

1) Legal Liability Today (under the present 19069 law): As *Fortnightly Corp. vs. United Artists Television* made all too clear, cable is not liable for copyright payments because the function of a CATV system is that of a viewer, *not* a performer. The classic cable system merely transmits a relatively local signal, no more, no less. After *Fortnightly*, the CBS organization thought a hole existed and sued the Tele-

Prompter Corp. citing a cable system that imported distant signals. That case is currently awaiting Supreme Court resolution.

2) Liability Under S.1361: Well . . . who really knows? From the aspect of cable television, the testimony of National Cable Television Association Chairman Bud Hostetter, President David Foster, former chairman and for 15 years board of directors member George Barco and economist Bridger Mitchell are most important.

Foster made his case to the Senate Subcommittee and Senator John McClellan of Arkansas — the one man in Congress really responsible for the copyright situation — during hearings last July 31 — Aug. 1.

His basic considerations: (1) the basic CATV system merely provides its subscribers with a service for improving television reception, (2) copyright control would discriminate between those television viewers who need no special equipment and those who do, and between those television viewers who erect their own antennas and those who choose to utilize the CATV service.

Furthermore, he explained, CATV operators have no control over program content and, unless a statutory compulsory license is granted, clearance plans or blanket licenses would not prevent certain copyright owners or licensees from charging exorbitant fees and thus gaining control over the much smaller CATV industry.

In the royalties issue, NCTA believes copyright owners would come out ahead since they are paid based on audience size and CATV expands the audience and therefore, the revenue. On the other hand, duplicating programs are required to be blacked out which protects copyright owners but subjects CATV operators to either violating the copyright law, violating the FCC regulations, paying copyright owners and broadcasters whatever they asked, or going out of business. As the copyright bill stands now, TV and radio stations generally are treated as primary transmission and cable television systems generally are treated as secondary trans-

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missions. Although this bill, if enacted, may have a damaging effect on the CATV industry, NCTA feels it will protect the public's interest which is also their main interest.

Another Point of View

Speaking from an entirely different perspective, George Barco said "while I have been an active participant in the affairs of NCTA over the years, the views I am about to express on the copyright issue are my own, and in many respects do not correspond with the officially adopted views of NCTA as an organization. At the same time, let me state that I believe my views reflect those of many, many cable operators all over the country. There is no single matter which has concerned the CATV industry for the past seven to eight years more than copyright.

"How could there be any justification for requiring the subscribers to make an additional payment to the copyright owner who had already received payment in his contractual arrangements for the broadcasting, paid ultimately by the television viewers — including CATV subscribers — in the advertising costs of purchased products?

"I put aside completely my firm conviction that copyright payment for the reception of television signals received 'off-the-air' is wrong in principle and discriminatory in effect. I address myself now to the consequences of the imposition of copyright payments which this industry simply cannot afford to pay on its growth, development, and, yes, its survival.

"To fulfill the many promises of cable, we of the cable industry are willing to make a fair and reasonable accommodation on copyright for even off-the-air reception! In my opinion, the copyright owners have been, and apparently still are, unable to be properly concerned with the financial problems of our industry; we, therefore, earnestly request that your committee carefully study all of the relevant circumstances, in order that your

final determination will make it possible for our industry to have the financial stability to properly develop our capabilities for service for the people of our country."

NCTA Economist Bridger Mitchell, before catching flack from Senator McClellan who demanded new figures and new projections based, not only on half the proposed fee schedule (a somewhat complicated one to five percent basis) but twice!, told the Subcommittee, "Conditions for the development of cable service vary widely throughout the 100 largest markets. Near the center of these cities, penetration will range from 22 percent to 35 percent for typical systems. These urban areas generally receive all three network signals and in the larger markets there are one or more independent stations with good reception. Even in the absence of copyright fees, profit rates for centrally-located systems will be lower than returns available to capital invested in other industries. Except in exceptional circumstances, cable systems will not be built in the central cities under present FCC regulations."

"When the schedule of copyright fees proposed in S.1361, which is graduated from one percent to five percent of gross revenues, is added to the cable system's operating costs, the effect is to reduce rates of return a full percentage point. For example, a system of 10,000 subscribers at the edge of one of the 50 largest markets would find its profit rate reduced from 11 percent to 9.9 percent. Depending on the capital structure of the system such a change can reduce the return to equity capital by two or three percentage points. While this change may not at first appear particularly large, these figures may be put into perspective by noting that the proposed copyright fees would have reduced the before-tax net income of eight large multiple-system operators by an average of 19 percent last year.

"Because a high proportion of the major market systems would encounter similar subscriber and cost conditions, the prospective returns to cable investors are only marginally attractive when com-

pared with other industries, and then only on the suburban fringes of most cities. In this situation, copyright fees of the magnitude proposed in S.1361 can be a significant deterrent to construction of many new systems."

Meanwhile, At the FCC

3) Copyright at the FCC: The Communications Act of 1934 and the extent to which the Federal Communications Commission may regulate cable have been at the core of the copyright problem. On the one hand, the FCC's Chairman, Dean Burch, held out the carrot (big cities) attached to the stick (copyright) while on another side the Office of Telecommunications Policy's Director Clay "Tom" Whitehead danced as Svengali disguised as Faust with much the same promise. The result has been variously called the "Consensus Agreement" and the "Capitulation."

Senator McClellan, in talking about that agreement, did say, "the section approved by the subcommittee contains a coordinated resolution of copyright questions and of those regulatory issues that are necessarily related to copyright matters. The new rules of the FCC are generally consistent with the recommendations of the subcommittee and it is anticipated that the regulatory provisions now contained in S.1361 will be eliminated."

The Bill, With Changes

There are six subsections to Section 111 of S.1361.

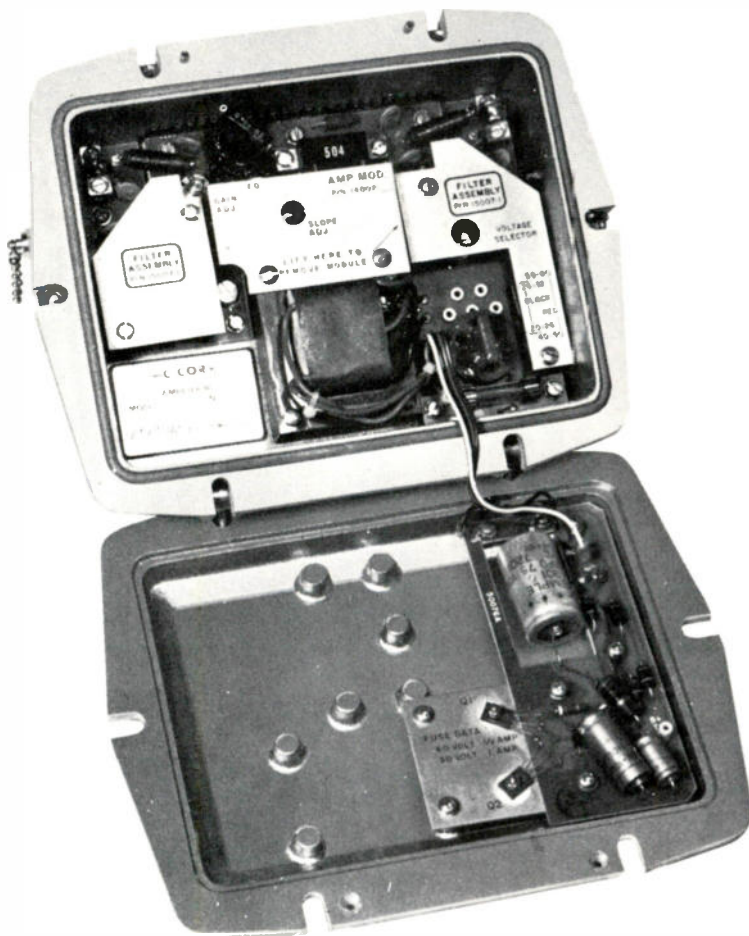
a) Four types of secondary transmission are exempt: hotel or apartment house systems without extra, direct charges for viewing or hearing; instructional types of transmissions; secondary transmission over a common carrier; and a wholly nonprofit secondary transmission.

b) Under this subsection a CATV system would be fully liable for infringement if it transmitted a primary transmission that "is not made for reception by the public at large but is controlled

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and limited to reception by particular members of the public." — for instance, Muzak.

c) CATV systems must be allowed compulsory licenses for the secondary transmission of radio signals, local TV signals, and distant TV signals consistent with FCC rules. To be "allowed" to obtain the compulsory license, a cable system must:

d) ... comply with certain conditions. A system must register with the Register of Copyrights, file quarterly statements of account, and pay royalty fees.

e) This clause merely meddles with the FCC and its jurisdiction over cable... it quite likely will be drastically revised.

f) Definitions and details.

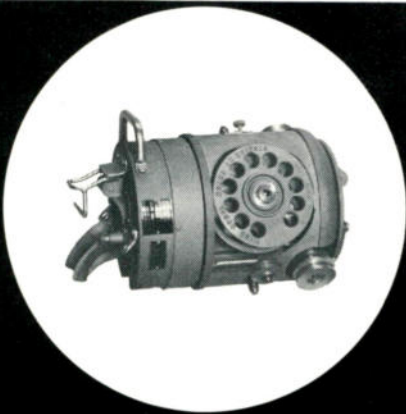
While the Senate Subcommittee on Patents, Trademarks and Copyright has perennially held hearings with little real effect, the courts have continued their rulings interpreting the 1909 law's effects on CATV. Just last month, the Supreme Court agreed to review the aforementioned *CBS vs. TPT* suit. Writs of certiorari were granted and hearings will be set as

soon as both sides... and surfeit of amicus curiae including the Justice Department in the person of Solicitor General Gerald Bork and NCTA... exchange briefs.

The March decision of the Appeals Court in New York, the immediately prior stage in the suit's progress toward the Supreme Court, was the first ever to impose copyright liability on cable television transmission of over-the-air broadcast signals. That surprise decision came on CBS's appeal of a lower court decision that carriage of CBS signals on three TPT cable systems in no way infringed upon the network's copyright. The Appeals Court upheld that decision only in part; while it agreed that some use of microwave transmission, program origination and interconnection of systems do not change the character of the individual system from that of "viewer" to that of "performer," it reversed the lower court finding that importation of "distant signals" — which the appeals Court failed to define and merely offered an opinion of what

one might be — does constitute copyright infringement.

In its opinion, the Appeals Court left the burden of demonstrating that a signal carried was not a distant signal — basically, that a signal could be received reasonably well off the air — to the CATV system carrying such a signal. TelePrompTer pinpointed the problem that such a demonstration would present to all cable systems when it wrote in its petition to the Supreme Court seeking certiorari: "... the test announced by the court will impose on every CATV having an antenna site more than a 'few miles' from a franchise area the burden of proving that it meets a vague and uncertain test as the price of not being an infringer. Certainly every system using microwave for the connection from the antenna site to its community will be forced to litigate, with the burden on it, or accede to the copyright owners' demands. And the court mention of the possibility of investigation into a CATV's 'motivation' in the



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NCTA chairman Amos 'Bud' Hostetter told the McClellan Subcommittee that acceptance of copyright liability placed the industry in a position of uncertainty which must be cleared in order to firmly establish its financial potential in the eyes of investors.



location of its antenna site raises the possibility of litigation involving even systems not using microwave."

TPT's certiorari petition also mentioned the extent of copyright liability that could be charged against its three systems involved in the CBS case. TPT said that the average cable system carries 380 telecasts a week, of which half would involve a copyright program. Thus, TPT reasoned, "If the statutory minimum of \$250 per infringement were claimed and levied against cable operators for each copyrighted program, the potential statutory damages could be more than \$2,000,000 per year per channel on which distant signals are received."

The potential damage to the cable industry presented by the TPT-CBS case was mentioned by NCTA spokesmen reacting to the Supreme Court decision to hear the case, but overall the association reaction to the High Court decision was "pleased as punch."

The Solution Is the Problem

The need for a new law is urgent; if only because the Supreme Court could conceivably decide in favor of CBS under the 1909 law. But it is also clearly hopeless for Congress to pass — much less divine — a statute that would provide a detailed resolution of all copyright questions raised by every new form of communication. And that is essentially what the Congress, specifically Senator McClellan and his subcommittee, are attempting to do.

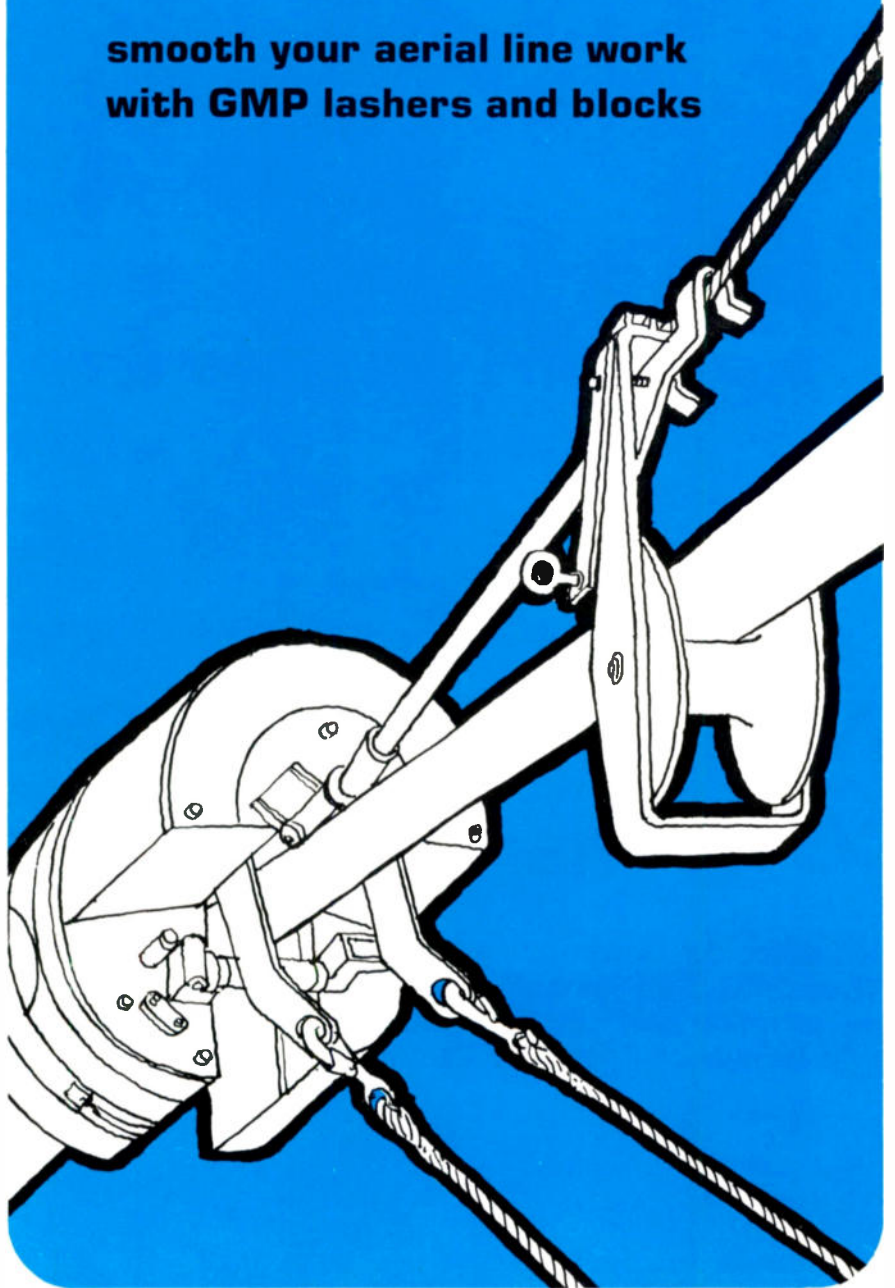
They hope to solve all of cable communications problems while knowing only about the classic CATV system... foolhardy task at best.

As the Senator told the packed hearing room, we're going to "get the problem resolved; maybe not to everybody's satisfaction... but we are going to get something done... maybe not the way you want to do it; maybe not the way anybody concerned wants to do it... but we are going to get it done."

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Westward Ho the Cable - CCTA Manifests Its Destiny

The California Community Television Association and invited guests will gather in Las Vegas this month for what they promise will be the biggest and best Western Cable Television Show and Convention ever held.

*By Pat Gushman
Associate Editor*

Las Vegas has long been known as the convention capital of the world.

But if 8,000 members of the regional Jehovah's Witnesses Convention, American Mining Congress with more than 14,000 delegates and thousands more from the Catholic Women's Organization sounds like a medley of miscellany, then this resort oasis might better be termed the "unconventional convention capital."

Residents and visitors were astonished recently to awake and see dozens of small aircraft taxiing down a main thoroughfare on the

way to an Airline Owners and Pilots Association convention. These are just a few of the thousands upon thousands of convention delegates who come to Las Vegas each year for a myriad of confabs, from the ecclesiastical to the giant trade shows.

CCTA Decends

Leading the next onslaught on the beleaguered but prosperous city will be the California Community Television Association as over 2,000 cable television operators and suppliers gather from

across the nation and many foreign countries to discuss the latest developments in cable television at the Fifth Annual Western Cable Television Show and Convention, November 28 - December 1.

The need for more and better convention facilities and the national dimensions of the show reportedly prompted the selection of the Las Vegas Hilton as the site for this year's show. The Hilton believes it has the most impressive Convention Center to be found anywhere in the Western States and the entire gathering will be housed in the 1,500 rooms of the hotel. All meetings and exhibits



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will be held in the 75,000 square feet of meeting rooms and facilities.

The Western Convention will feature three complete programs to satisfy the cable operator's need for improving his CATV operations. The management program will focus on the problems which beset the individual manager — developments in federal, state and local regulation, the latest FCC requirements for system operation and reporting, utility relations and undergrounding, public access, radical and minority demands on cable, labor negotiations, OSHA requirements, and daily system management tips and suggestions. At the same time outstanding speakers from the FCC, the Congress, the State Legislature and the industry will give an overview and perspective on the likely developments in cable television during the next few years.

The Convention Committee also reports that an outstanding technical program will be presented this year. Three hours of intensive panels and speakers will

zero in on the technology, operational problems and experiences with two-way co-axial communications. Ample time for viewing the 200 exhibits and displays has been scheduled into the program.

Another Profit Center

Also promised is the "best and most thorough cablecasting program ever offered at any cable television convention or trade show." The theme is: making cablecasting another profit center for cable systems. Programs on studio management, syndication and software, studio technical problems and tips, and community and minority programming will be featured. On hand will be exhibitors with complete lines of the latest cable studio equipment.

Las Vegas itself, unlike any other city in the world, hypnotizes first-time visitors with its plush multi-million dollar resorts. All are identified with mammoth marquees that blaze, dance and swirl as they announce the nightly

array of top name entertainers and dazzling stage spectaculars.

Long synonymous with layouts of greenery (for indoor sports), gourmet dining and glittering show productions, the "entertainment capital" is opening new vistas to those seeking fun outdoors. Immaculate fairways and putting greens, volleys, drop shots and cross-court drives have added new dimensions to the glamorous sporting environment. Golf bags and tennis rackets have become common baggage as more and more of the annual visitors have discovered the courts and courses found in the area.

Not to be outdone, the CCTA is again including its Annual CATV International Golf Tournament which will tee off on Wednesday, November 28, at the Sahara Nevada Golf Course. The so-called "Classic" boasts of great golf, fabulous prizes, fun and good sportsmanship. The tournament will start swinging on Tuesday evening with a no-host cocktail party in the Las Vegas Hilton.

If golf or tennis is perhaps not your suit, some of the most outstanding scenic wonders of the west are within a 300-mile radius of Las Vegas. It is the center of a scenic region which includes the Grand Canyon, Death Valley, Hoover Dam, Zion and Bryce Canyon national parks, and Yosemite National Park, and for those who might have missed it at the National in June — Disneyland.

Johnny Cash

Of course, no convention would be complete without the Convention Banquet which is billed as the "most magnificent ever." Johnny Cash headlines the entertainment for the banquet which features a complete Las Vegas show accompanied by fine food and service in the largest show room in 'Vegas.

And so, your registration fee (\$80.00 pre-registered) includes more than an outstanding program and trade show. The Western Show is considered the "funnest" convention of them all and the CCTA promises that this year's will be the most exciting show yet.

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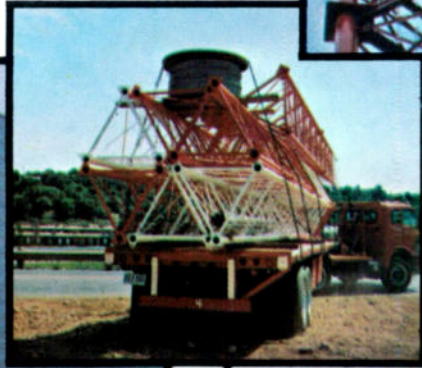


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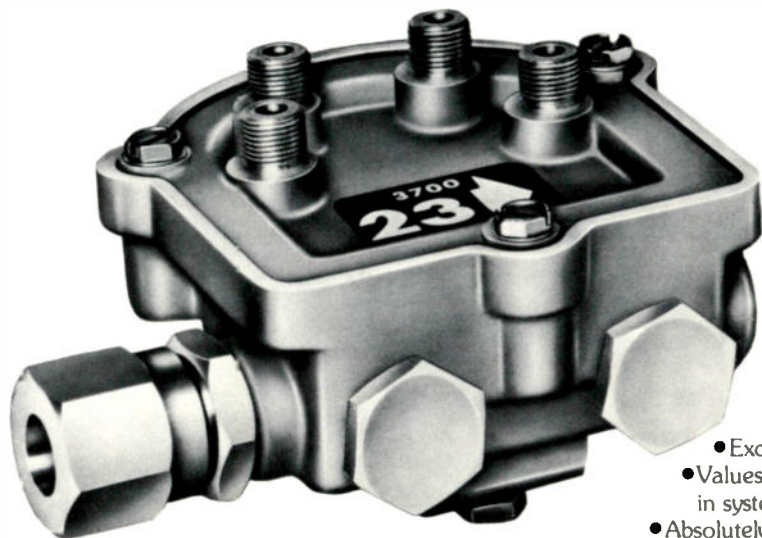
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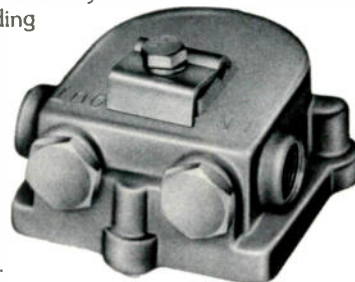
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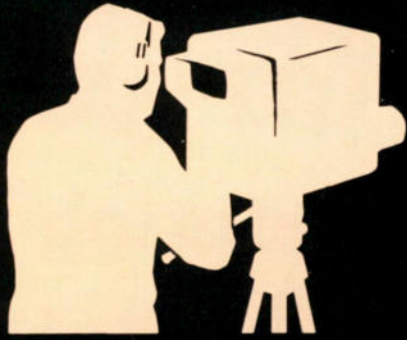
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Cablecasting from the Hill: Prime Time Is Your Time

With the addition of compatible recording and duplicating equipment in the House Recording Studio it is possible for Congressmen to reach more of their constituents through cable than over the air.

*By Carole Shelley
Associate Editor*

More and more there's a greater burden on congressional members to tell their constituents what's going on in Washington. Congressman Charlie Rose, (D.-N.C.), said, "The Executive branch has almost instant access to the media but Congress, as a check and balance, has to create its own media and make it available for local outlets. Cable television now provides this new medium for Congress."

Congressman Rose was referring to the new three-quarter inch Sony duplicator in the House

Recording Studio. The Sony equipment, plus the future installation of an International Video Corporation one inch video recorder, afford an additional means of communication for congressmen. "Because of the localized nature of cable," explained Congressman Tom Rees (D.-Calif.), "Congressmen can cablecast more messages and improve the effectiveness of communication with their constituents." Cablecasting is also advantageous, Rees asserted, because it's easier to get a local congressman's program on cable

television than on regular television stations that compete with national networks.

Reaching all constituents by cable TV can be done through a weekly five minute interview program special news bulletins on local issues, short filmed tours of the Capitol and a variety of other formats made available through the cable equipment in the House Recording Studio.

Although the House Recording Studio has operated for many years as a service to congressional members, the cable equipment has

Help US Help YOU

WHITE URGES VIGOROUS SUPPORT IN NATO CAMPAIGN AGAINST CATV

By Louis Pelegrine

Pompano Beach, Fla.—The board of the National Association of Theatre Owners endorsed an aggressive action program at a meeting here. The program is attuned to the "operation positive" theme espoused by

factors threatening exhibitors' prospects.

White indicated that NATO will carefully evaluate the entire situation as it relates to the most effective means of guaranteeing an adequate supply of screen product. He said appropriate measures will be insti-

copyrighted, will "serve to confer prestige and attention on theatres as a separate and distinct element of the motion picture industry," it was said.

5. The presidents of the film companies will be told that exhibition views as "a harmful practice" the release of films to TV too soon after

AMST Intensifies Pay-Cable Fight; Vows 'Protection'

Washington, March 27.

The Assn. of Maximum Service Telecasters intensified its war on pay-cable at its annual membership meeting prior to the opening of the National Assn. of Broadcasters convention.

The AMST meeting also vowed to protect the broadcast spectrum from threatened incursions and

NAB Warns CATV Means End Of Free TV

National Association of Broadcasters warned recently that cable television is trying to establish itself as a "pay version of

tation of the fact that CATV is quietly girding itself, not as a source of new program material for the subscribing American

'The time has come for CATV to stop playing games with the Commission and insisting with a straight face that it has no interest in the program resources of

Battles Ahead for Cable TV

By Eileen Alt Powell
of The Journal Staff

Should the state of Wisconsin regulate cable television? If so, how?

What should municipalities ask through franchise agreements of those entrepreneurs who seek to turn Wisconsin into a "wired state"?

How will citizens' rights be protected in the process?

The answers to those and dozens of other questions are expected to begin emerging

Gleason Appears to Favor Government CATV

By Ruth Watkins

County Executive James Gleason, emphasizing again and again that he is "not committed to either side" of the question, gave a talk before the Montgomery County Press Association last Friday describing glowing possibilities for public — rather than private — ownership of a County Cable TV system.

Saying "CATV is the most important program I wish 15 members will be appointed, and a com-

financial aspect and the question of "government control" of programming.

While "a heavy financial commitment" would be required for public ownership, "revenue estimates are equally impressive," the County Executive said, giving

figures of \$20 to \$25 million as initial capital investment, to be financed

Montgomery County ownership of CATV would be a "staggering burden financially on the county and its taxpayers" in an address last week before the Washington Advertising Club.

Panagos, who already holds a CATV franchise for the City of Gaithersburg, said he would rather a private

information to citizens is questionable.

Promising citizen involvement in a public owned CATV system, Gleason said, "As long as citizens are involved, it is beyond domination of political figures."

Programming on the public system, Gleason said, could contribute to County efforts in police

Already they are talking about how much they can save subscribers as compared to a privately owned system, also about sidizing hook-ups for those who cannot pay, and in the next breath it will provide a financial windfall for the County. All of these things can't be possible.

Gaithersburg

U.S. must guard free tv from cable, Taylor says

LOS ANGELES, May 16—The time has come for government to insure that the growth of pay cable television will be supplementary and not a replacement for advertiser-supported tv, Arthur R. Taylor, president of CBS,

grams, whether games or serials, may take three years or longer to build to peak audience.

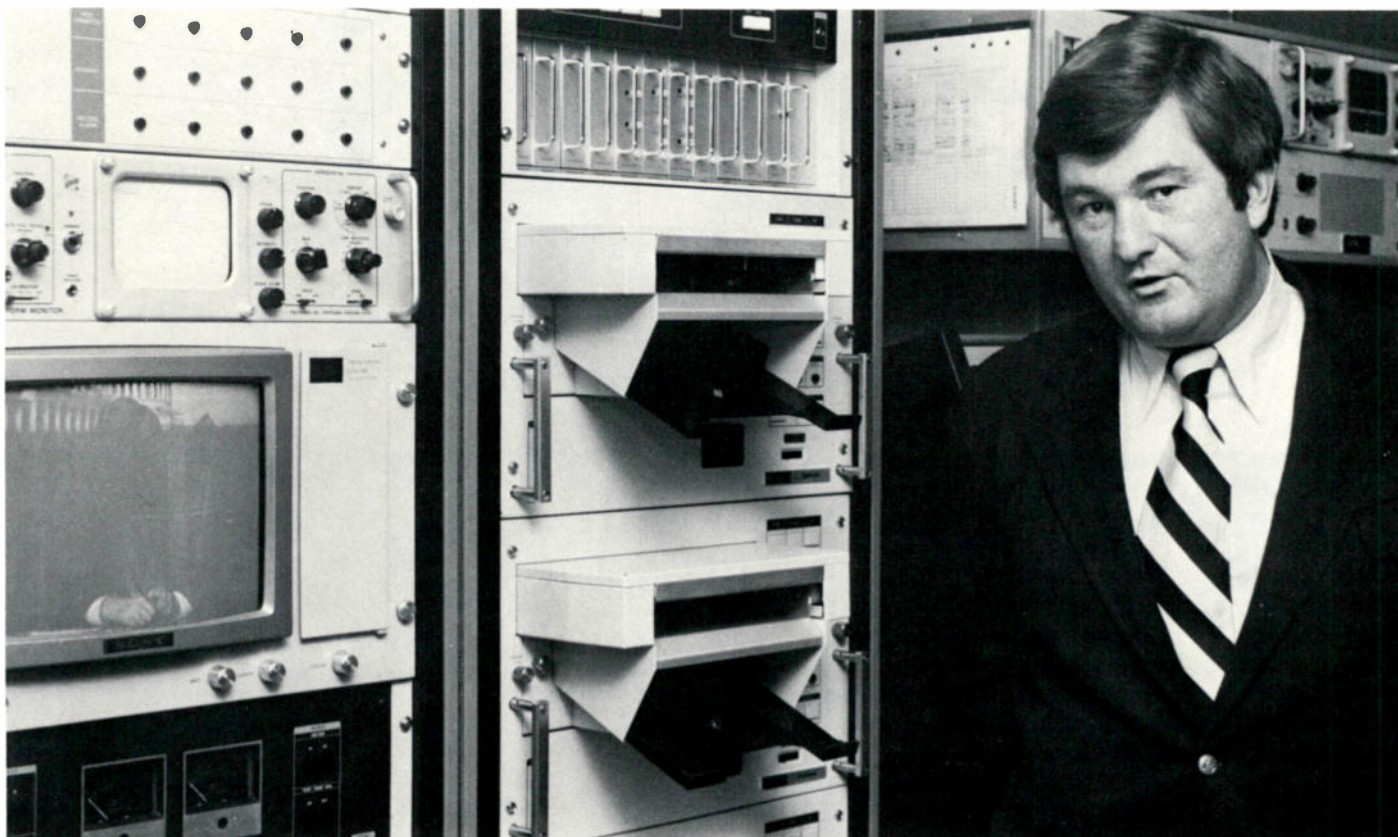
Mr. Katz attributed CBS-TV's drop to third in daytime ratings —after 17 seasons in first—to several factors, including a con-

Goodman says CATV could hurt free tv

LOS ANGELES, May 8—Julian Goodman, president of the National Broadcasting Co., has voiced his fear that cable television might be misused to weaken the country's free tv system.

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Congressman Charles Rose (D-N.C.) inspects the 3/4 inch video cassette equipment. Cong. Rose, a member of the House Recording Studio Committee, was the first congressman to utilize the equipment. The new equipment now permits congressmen to tape messages, reports, and programs on 3/4 inch cassettes for viewing on cable systems in their districts.

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only been in actual operation since September. The congressional committee responsible for the House Recording Studio is leasing the Sony equipment on an experimental basis. Congressman Rees, chairman of the committee, hopes the IVC contract will be like Sony's which is based on the amount of use.

Before the equipment went into actual use, the National Cable Television Association helped initiate the program by encouraging the congressional committee to install equipment compatible to cable television. Wally Briscoe, NCTA senior vice president, said his organization advised House members of the cable equipment's availability and told them which of their local systems could use the 3/4" or 1" tape.

The Sony equipment is composed of a monitor or control unit and four 3/4" printers, or cassette duplicators. The monitor can operate any number of units simultaneously. The IVC one inch video tape recorder is primarily different because of its reel to reel operation.

More Flexibility

Bill Hartnett, assistant to Clerk of the House William Jennings, is responsible for professional personnel who install the equipment in the recording studio. He said congressional members who want to use the studio facilities usually record programs on 2" video tape. As an additional service, the 3/4" tape is used to duplicate messages, reports and interviews for use in cable systems. "The cable equipment is an effort to obtain more flexibility for congressmen," Hartnett said. The House Recording Studio provides the facility and personnel for congressmen, and the congressmen buy their own tapes and arrange for distribution.

Expenses for the cable equipment come from a House revolving fund rather than an appropriated fund. Rees explained that congressmen receive a monthly statement for house studio services. There is an established charge for cable use over and

above use of the regular television equipment. Congressmen pay for time from their stationary allowances, and when that money runs out, they use personal funds. This money goes back into the revolving fund.

Congressman Rees and his committee sent all legislators a letter explaining the new cable service. They are also producing a 20 minute orientation film to acquaint congressmen and their staffs with the capability of the cable equipment. "Most congressmen don't realize how effective the cable equipment can be in reaching all constituents," Rees added.

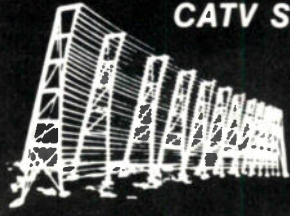
"Washington Report"

So far, Congressman Rose has been the main user of the cable equipment. He arranged for a weekly half-hour program at 6 p.m. on Mondays with the Fayetteville system. The main portion of Rose's "Washington Report" is an interview with someone connected with a timely local issue. Rose interviewed Undersecretary of Agriculture Phil Campbell during a September program. "Mr. Campbell is familiar with farming in the Southeast United States so we discussed food prices, beef shortages and exports," Rose reported. The congressman gives his audience notice of programs through his bi-weekly newsletter. He feels that "cable systems are very anxious to participate in the program."

And he is correct according to Jeff King, program director of the Fayetteville cable system. King said the Fayetteville system has a timely tape from their congressman by the time the people are discussing a current news event. King thinks the 3/4" tape is of "excellent quality and looks quite professional."

The Fayetteville system makes other use of Rose's weekly tapes by excerpting short segments and programming them on newscasts. "The tapes are an excellent way to reach 20,200 homes with timely, informal information at a minimal cost to the system," the director related. For example, since Fayetteville has a heavy military

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subscribership, Congressman Rose can now discuss military affairs directly with the people. The tapes are having some effect since the system has received audience letters and questions addressed to Congressman Rose.

Other than Congressman Rose, Congressman Tom Bevill, (D.-Ala.), is considering a cable program on a preliminary basis.

Through speculation by district offices, the congressman's office feels a cable program would be

well received by Alabama constituents — and the Huntsville system is interested in using Bevill's tapes. Bevill plans to incorporate his regular weekly television tape into a regular cable format.

Congressman William Gunter, (D.-Fla.), first experimented with the cable equipment in late September when he began making a five minute weekly interview program available to seven television stations and five cable stations. Gunter discovered the growth of

the cable industry in Florida and talked with Rose to find out how the cable equipment worked. He then contacted cable systems within his district and said they were very friendly and receptive to a weekly program.

Gunter's press assistant suspects cable will be more advantageous than television stations because he thinks cable will play the five minute tape during the week rather than only on weekends. Cable's potential to reach all the people is its greatest asset for Congressman Gunter.

Congressman Joseph McDade, (R.-Pa.), approaches the use of cable equipment from a different angle. He only sends tapes of specific news announcements of personal interest to his constituents, like the approval of a large housing development in Strasburg. "The special programs indicate to the people that something good has just happened," McDade's assistant said.

Cable equipment aids Congressman McDade in reaching all of his constituents since the terrain pro-

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After the first use of the new 3/4 inch video tape equipment in the U.S. House Recording Studio, Congressman Charles Rose (D.-N.C.) watches the playback of his message taped for constituents for airing on Fayetteville Cablevision's TV Cable 12. With Congressman Rose is Wally Briscoe, NCTA senior vice-president (left). NCTA encouraged the installation of compatible cable equipment in the studio.

hibits some Pennsylvania towns from receiving any VHF or UHF channels. McDade's assistant said he has heard favorable responses from people concerning the cable appearances.

The cable duplicating equipment seems to work for Congressman McDade except for a problem with compatibility of the 3/4" tape since some cable systems in his district don't have corresponding equipment.

Wally Briscoe elaborated on the problem of compatibility. There are 15 to 20 different models of video tape recorders, all unable to interchange programs. Therefore, Briscoe said, there was a problem arriving at standardization until the 3/4" tape became available as a reliable piece of equipment with good market penetration.

Reactions to the new cable equipment seem to be favorable. Congressman Rees said most congressmen are pleased with the cable service because it's an efficient, economical way to share information with constituents and congressional members. TVC

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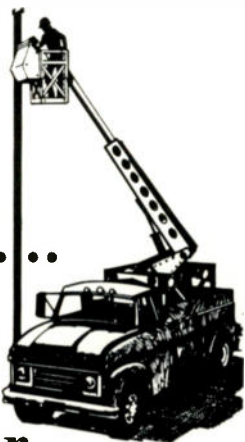
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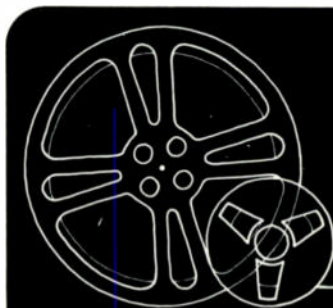
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CATV Programming

software news and tips

Origination Is Growing

Nearly 20 percent of all cable TV systems now originate programming locally on a regular basis, according to a survey just released by the National Cable Television Association.

Some 585 CATV systems in more than 1,300 communities are providing a steady diet of news, public affairs, sports, entertainment, educational and children's programming for more than 3 and 3/4 million subscribers.

Nationally, locally originated programming is shown on an average of 21 hours a week, an increase of more than five hours a week over 1971, when the last NCTA survey was made. In that year, the results indicated that just 284 CATV systems were programming local origination channels on a regular basis.

In this year's survey, nearly one-third of the more than 3,000 CATV systems in the country responded, providing a strong statistical sample on which to base future projections. However, the figures above are not projections, but are hard data reflecting actual conditions throughout the industry.

NCTA President David Foster feels the survey will be of "great value to suppliers of programming, equipment manufacturers, political candidates, advertisers . . . anyone who has doubted that the cable industry is seriously interested in local origination."


"We are particularly gratified to note that 40 percent of the cable

television systems originating programming have fewer than 3,500 subscribers. This demonstrates the CATV industry's concern for serving the public interest through locally-oriented programming in the communities served by cable."

For each cable TV system responding, the survey lists the name, address, phone number, number of subscribers, types of equipment, and tape or film formats, advertising information, program categories, hours of programming and more. Copies of the 96-page booklet, "Local Origination Directory 1973," are available from the NCTA at \$2.00 for NCTA members, \$4.00 for non-members.

Public Affairs Series

The American Enterprise Institute for Public Policy Research, a publicly supported, nonprofit and nonpartisan research and educational organization in Washington, is offering *free* a series of one-hour public affairs programs to cable TV systems.

The series, "Washington Debates for the Seventies," includes such programs as the Role of Congress in Foreign Policy, The Presidency and the Press Conference, The Nixon Doctrine (parts 1 & 2), The Defense Budget, Viet Nam Settlement: Why 1973 . . . Not 1969? (four parts) and Can Regulatory Agencies Protect Consumers? 

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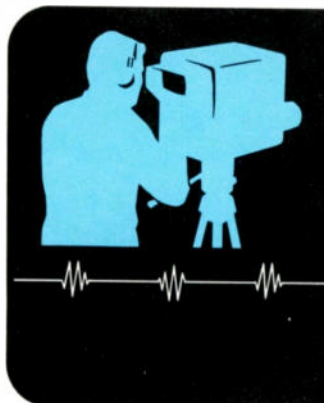
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STUDIO Equipment

A special monthly section devoted to TV programming operations in small studios

IVC Picks Cramer Video

Cramer Video, a leading supplier of professional video and audio equipment, has announced their selection by the IVC Corporation and Conrac Corporation as authorized franchised distributor for all New England states. The new franchise also covers Maryland, Washington, D.C. and Virginia.

IVC is one of the nation's top manufacturers of quality TV cameras and TV tape recording equipment. Conrac is a domestic producer of professional color and monochrome television monitors.

In making the announcement Cramer Video division manager, Norman Selinger, stated, "These appointments by both well-known manufacturers mark a major addition to our growing line of equipment. While expanding our sales and service locations throughout the country." Selinger said, "we have been investigating appropriate new lines. Conrac and IVC represent the best product lines in their price range. Naturally, we are pleased to have been selected by these leading companies."

Cramer Video is a division of Cramer Electronics, one of the largest distributors of electronic components to industry. Headquartered in Newton, Massachusetts, Cramer Electronics has 37 sales and distribution facilities located throughout the world.

Cramer President, T. X. Cronin, points to their video division as one of their fastest growing operations. "Our video sales have

increased 300% in the past year," Cronin stated. "we plan to open many new video sales and service centers in the near future. Having valuable franchises like IVC and Conrac to bring to these new market areas is key to their better serving customer needs."

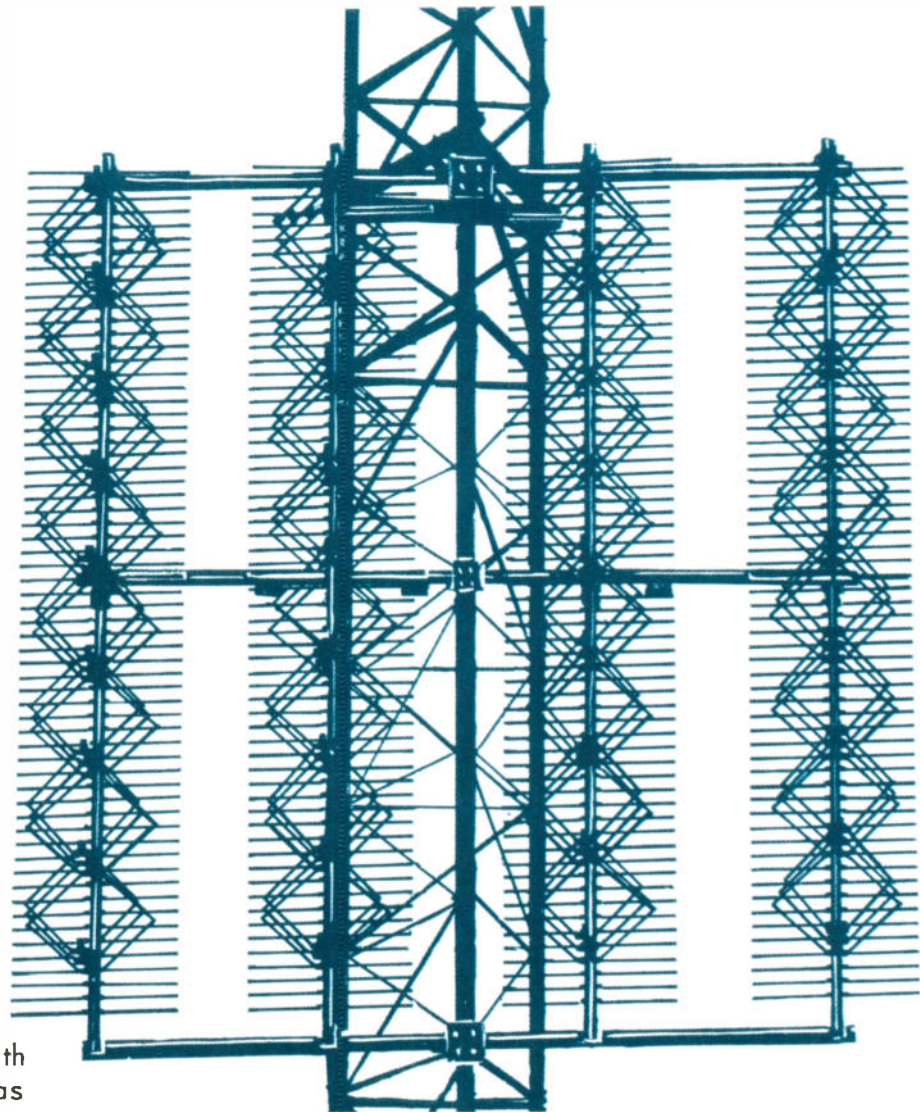
Sony Tabs Anixter - Pruzan

Anixter-Pruzan has been appointed national distributor of Sony Videocassette and studio equipment to the CATV industry. The Sony line consists of record and playback cassette decks, cameras, monitors and videoprocessing equipment. The company also stocks a full line of accessory apparatus for local program origination by CATV operators.

Key to the Sony system is the cassette deck. The VP-1600 record and playback unit makes the the CATV system's programming more flexible by enabling production and playback of original programming to meet FCC requirements. The Model VP-1000 Videocassette player transmits prerecorded programs only. Both units play up to 60 minute cassettes, are simple to operate and broadcast sharp, clear color or black and white pictures.

Anixter-Pruzan offers a leasing program for all studio and origination equipment, including the Sony Plumbicon camera and U-Matic Videocassette equipment.

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The vertical plane design permits direct mounting onto a tower leg and makes fine adjustments easy. Another advantage of the tower hugging feature is the provision of faster and safer installations.

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CABLE TV

Technician

A special monthly section devoted to the cable communications technician and engineer

Part II

... And Two Phaselocks In Every Home

With increased demand for use of more available channels, application of phaselock principles becomes increasingly important. Fortunately, it is becoming economical.

By James O. Farmer
Scientific -Atlanta

Editor's Note: In Part I of this article last month the early applications of phase locking techniques were noted, and it was pointed out that the circuit complexity of a phase locked loop is so great that until recently its use was restricted to a few specialized applications.

Proper acquisition circuitry may be used to aid the loop in locking up at any frequency in the hold-in range. An adequate acquisition and hold-in range is one which permits acquisition under the worst possible initial frequency error, Δf , due to all causes.

So far the error budget is ± 16.5 kHz and there are still several other sources of error to consider.

These errors are more difficult to measure. They include crystal aging, frequency fluctuation with power variations, etc. In the case of a phase locked heterodyne processor, we must also add the tolerances pertaining to the station whose signal we are processing. A safe acquisition range to consider is plus or minus 25 kHz. This allows for known sources of error, plus some margin for the undefined errors.

Implicit in the discussion of safe acquisition range has been the requirement that the loop must also exhibit an adequate hold-in range. Considerations with respect to adequate hold-in range include the use of servo compensation that develops a very high gain at

low frequencies, so that a significant phase error does not develop at the phase detector output. Also, the VCO must be capable of being controlled over an adequate range. For good stability, the VCO should be crystal controlled, but special design techniques are required to pull a VCXO over the frequency range required.

Several types of acquisition circuitry have been developed over the years. Probably the most common technique in communications applications is use of a triangular ramp which drives the VCO back and forth over the entire hold-in range, searching for a signal to lock to. When the VCO is driven to within lock-in range, the loop locks and the ramp is



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disabled. The technique works, but is relatively slow, because acquisition dynamics limit the maximum search rate. Also, if significant sidebands exist within the search range, the loop may attempt to lock to them rather than to the carrier.

Recently several types of digital phase detectors have become popular for frequency synthesis work. The most elegant is a sequential circuit, available in I.C. form, that matches the negative-going transitions of the two waveforms. This

detector has the property that if one input is higher in frequency than the other, the phase detector output is maximum in the direction that drives the VCXO into lock. This, if this detector is used, acquisition circuitry is unnecessary. For noise free applications such as frequency synthesis, this detector is often an excellent choice. However, it tends to be overly sensitive to noise or modulation sidebands, because of its characteristic of responding only to a waveform transition. In

addition, its maximum operating frequency is only about 10 MHz, so it is not useful for our present application. Another acquisition scheme involves use of a frequency discriminator, which must be accurately zero'd with the VCXO free running frequency.

Scientific-Atlanta has used an acquisition technique in our 6300 PL phase locked modulator and 6150 PL processor which to our knowledge is unique. Before the loop pulls into lock, a beat note exists at the phase detector output. The characteristics of the beat note are analyzed to determine the direction in which the VCXO must be driven in order to acquire lock. This technique permits lock to be achieved in a few milliseconds, with an initial frequency difference of fifty kilohertz. Circuit logic makes the technique insensitive to false lock on the reference sidebands as long as their amplitude is less than that of the carrier.

The visual effect of non phase-lock is primarily the familiar co-channel beats, the subjective effect being dependent upon the frequency difference. When the two signals are phaselocked, a ghost of the interfering signal will still be seen on the screen. No satisfactory method exists for eliminating this ghost except to eliminate the signal leakage. However, several things may be done in order to minimize the subjective effect of the ghosting. The subjective effect depends upon the relative magnitude of the interference, upon picture content, upon the relative phase of the two carriers, and upon the relative frame rates of the two pictures.

Some reduction of the effect of ghosting may be obtained, in the case of display of text only, by utilizing white lettering on a black background. This is possible because black will then occupy the larger area, and a ghost is less noticeable with black picture content than with white. Black level is less affected by the ghost because of its higher carrier amplitude. Also a subjective effect is apparently at work here.

Phase angle between the two carriers is important because the effects of modulation of the

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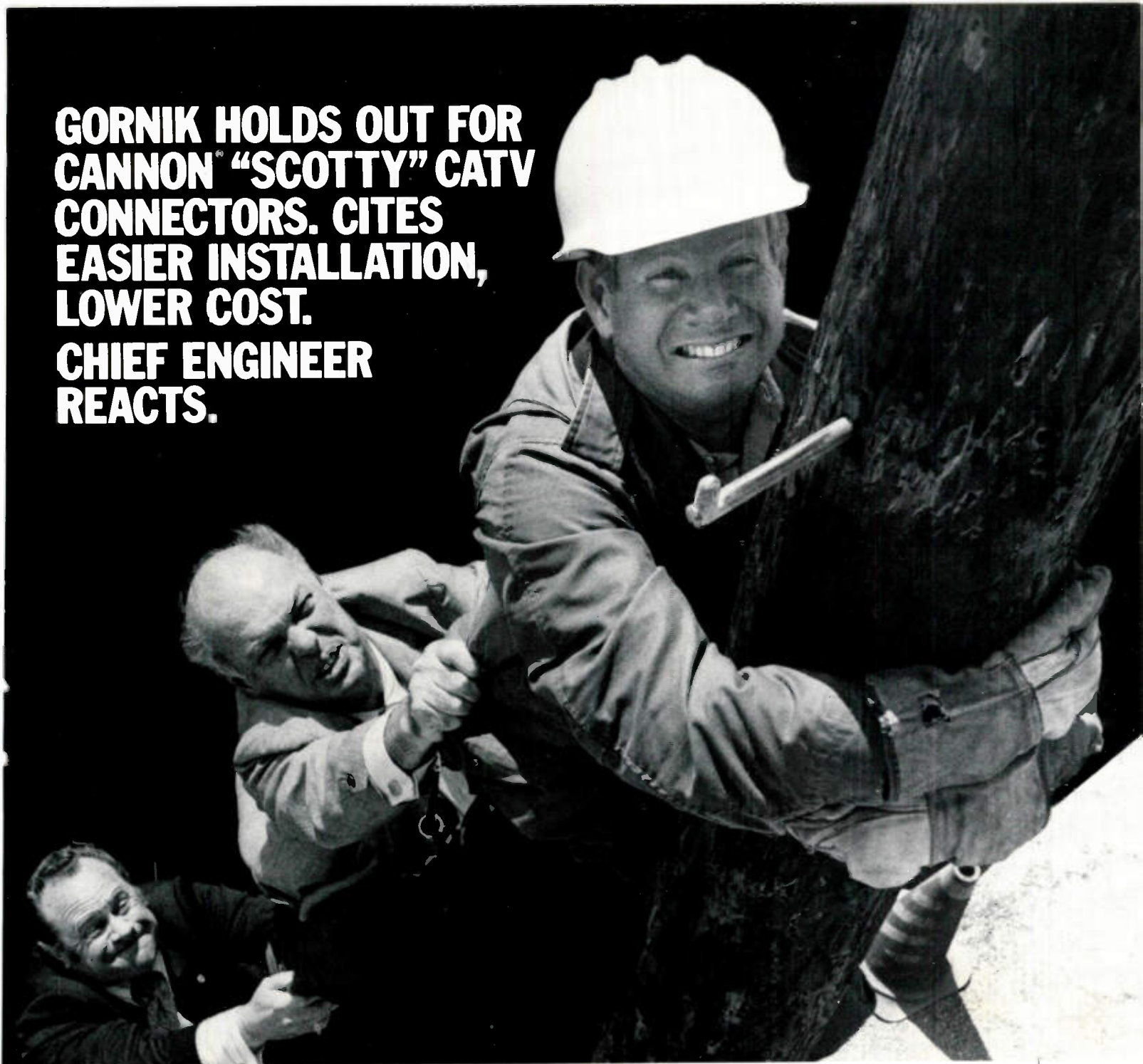
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The Chief Engineer opined that their present connectors were doing a good

enough job. Gornik agreed on the *good enough*: "I'm not knocking what we're using now, just saying that Cannon can do better. Take RF leakage, for example..."

"Can Cannon better the —60dB we're getting now?," asked the chief. Gornik grinned: "—60dB when they're new, you mean. But seriously, Cannon's technology can give SCOTTY a rubber gland or stainless steel sleeve that maintains contact better, longer, and delivers —90dB. And not just the day we put it on the pole!"

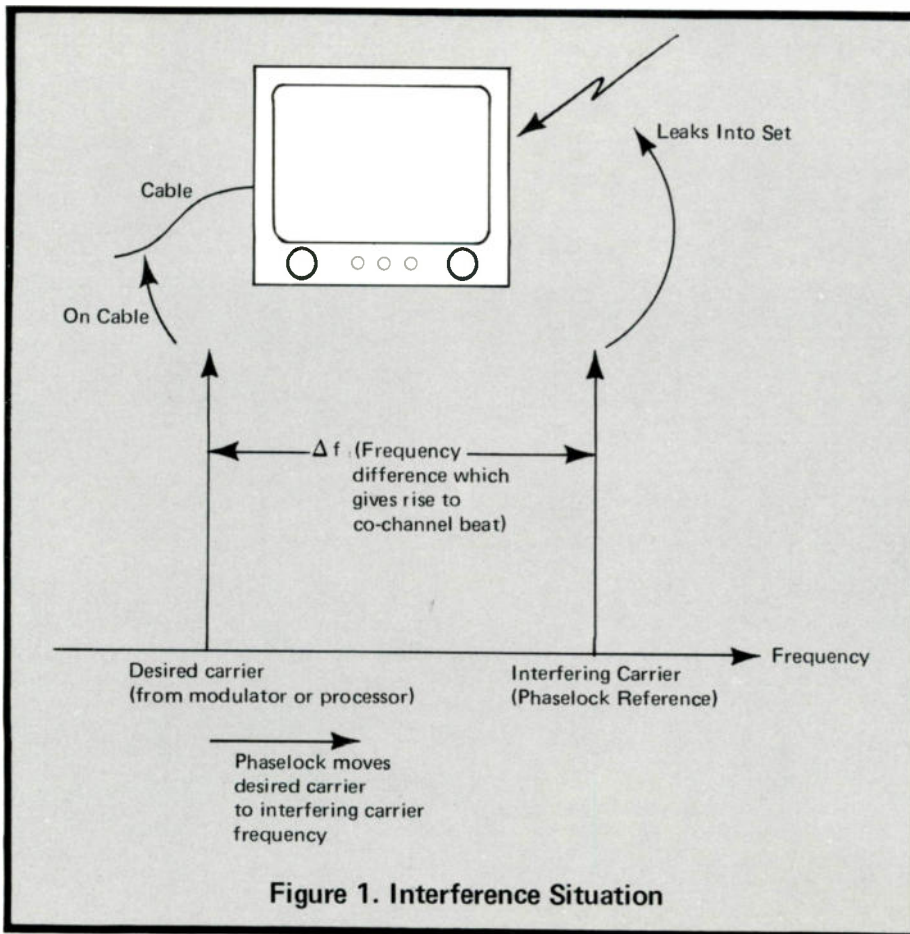
That made the Chief pause and think a bit. Gornik seized the opportunity:



"And they cost less than the others. So what about it...?" So the Chief smiled a little, and offered to give Gornik a leg up the pole.

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interfering carrier on the overall instantaneous carrier amplitude may be shown to be dependent upon the manner in which the two carriers add vectorially. Unfortunately, this characteristic cannot be put to use in minimizing interference, because the relative phase of the two carriers at the home receiver cannot be maintained over time.

The relative frame rates of the two pictures is important because sync information is transmitted at a blacker-than-black level, and if the ghost sync bars are moving through the desired picture, a more distracting situation is seen than would be seen if the sync bars were stationary. For this reason, the operator should be careful to operate at the same frame rate as that of the interfering signal, if maximum picture quality is to be maintained. This should not be a problem if both the desired cable picture and the interfering picture are synchronized to broadcast quality color sync generators: the frequency stability demanded ensures that

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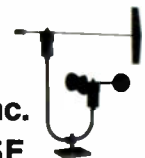


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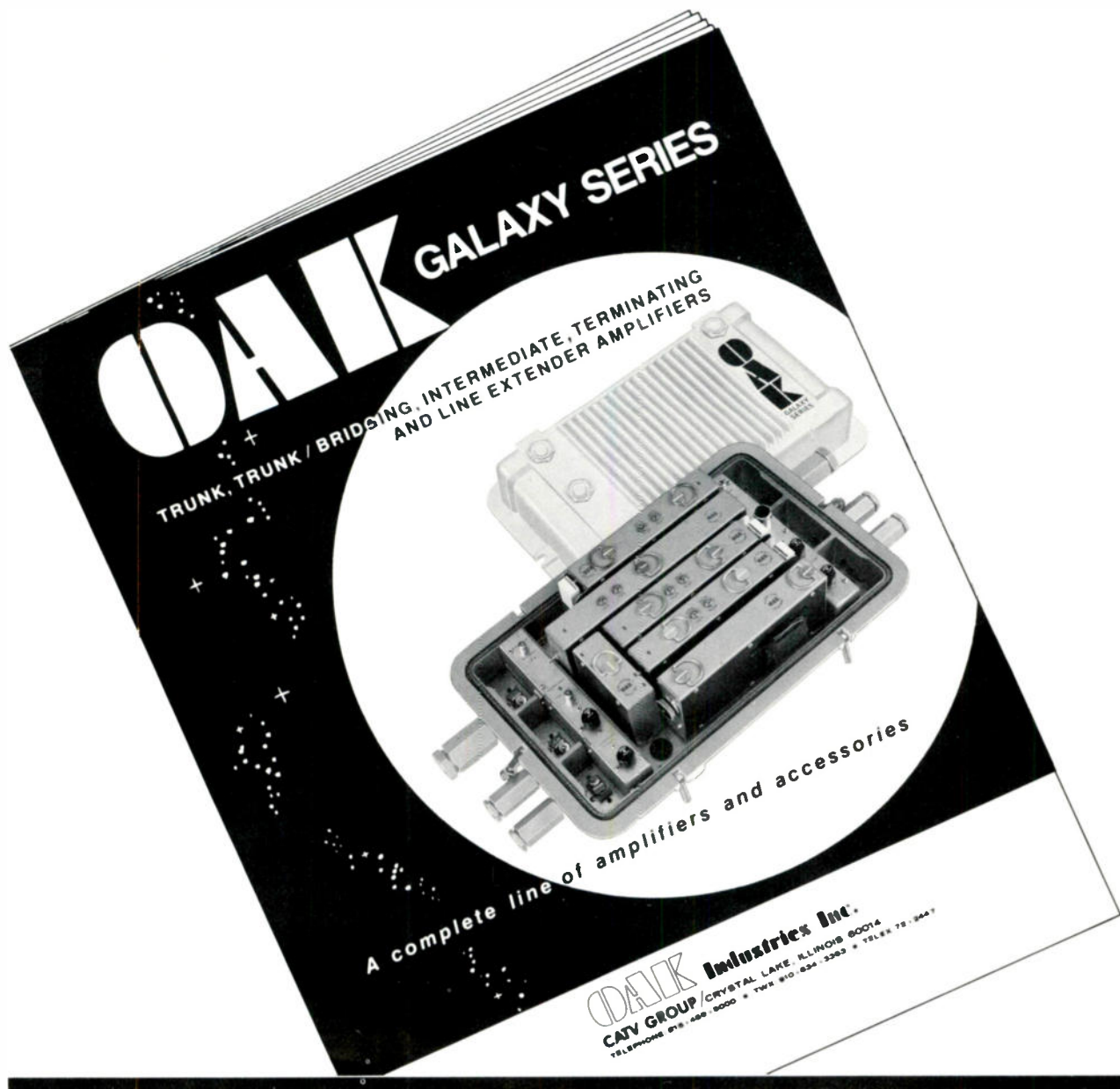
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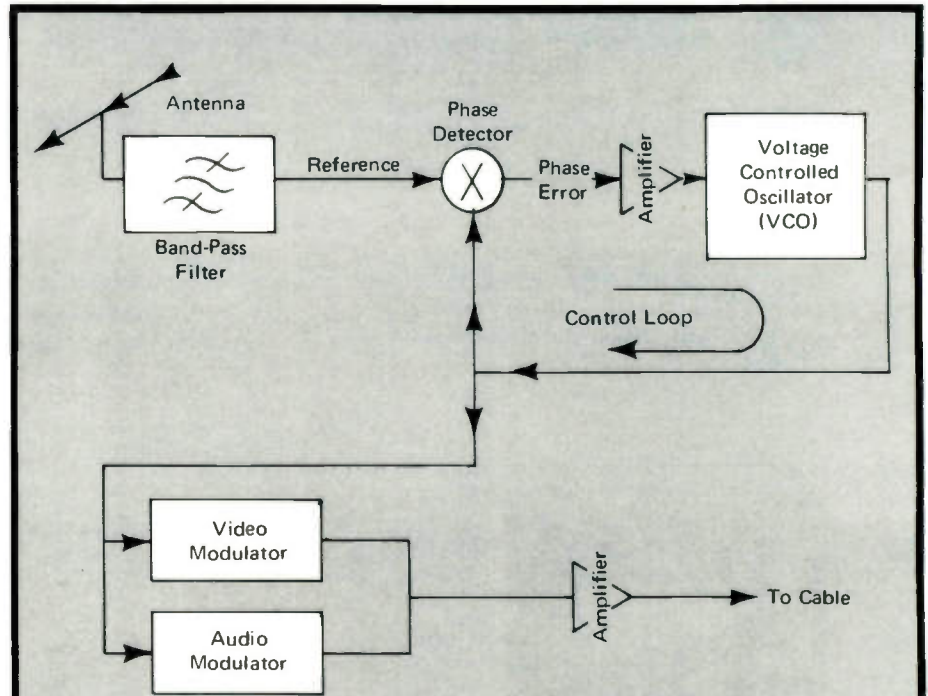


Figure 2. Simplified Block Diagram, Phase Locked Modulator

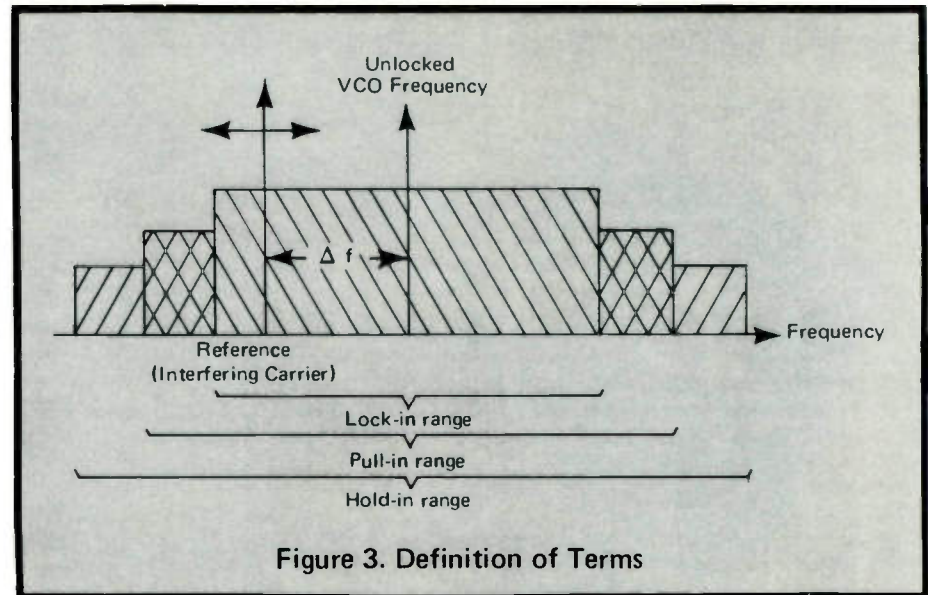


Figure 3. Definition of Terms

the two frame rates will be so nearly identical that the sync bar will move slowly if at all. Such may not be the case if the local origination picture is in black and white. This is because a 60 Hz field rate is traditionally used for black and white, while the field rate for color transmission is slightly retarded. This can give rise to sync bars moving rapidly in the picture. This problem may be eliminated if the local origination signal is genlocked to the interfering picture. This normally

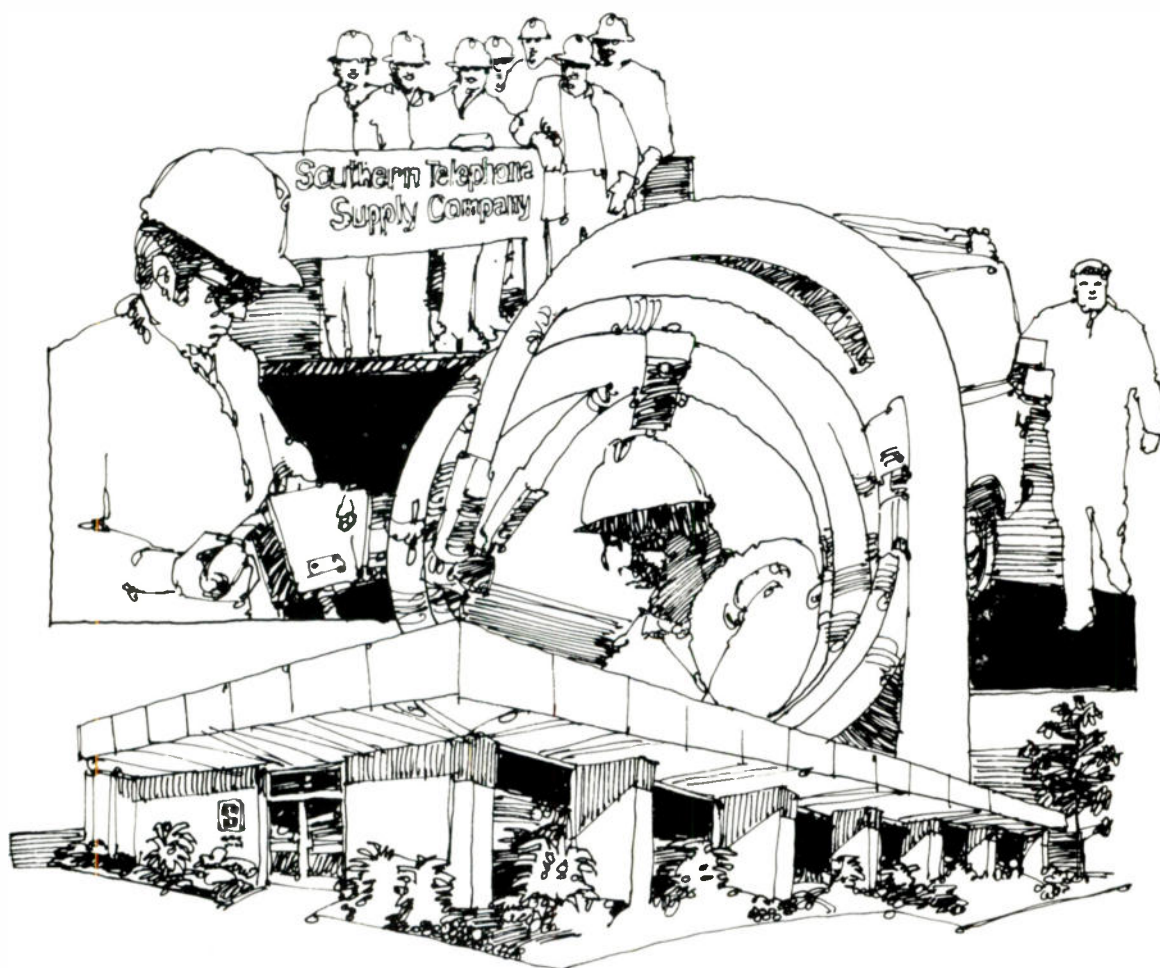
required, in addition to a camera, a sync generator capable of being genlocked to external video. To provide this video source for genlocking purposes, Scientific-Atlanta has provided a utility demodulator on its phaselocked modulator.

Phaselock techniques have several applications in CATV systems, but phaselock should not be looked upon as a "cure for what ails you." Intelligently applied, it can be useful in several applications.

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PRODUCT REVIEW

NEW COMPONENTS FOR CABLE TELEVISION SYSTEMS

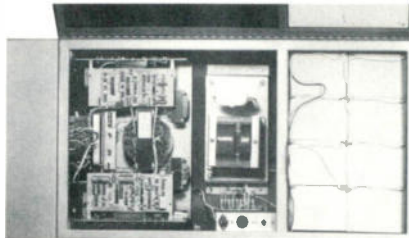
COMMERCIAL VEHICLE: FRANK INDUSTRIES, INC.

Frank Industries, Inc., 3950 Burnslane Road, Brown City, Mich. 48416, has recently introduced the 307 Commercial Vehicle. The new standard Xplorer 307 Commercial Vehicle has an all fiberglass steel reinforced body. The body is mounted on a Chevrolet chassis (11,800 G.V.W.) and is powered by 350 cu. in. engine (454 C.I.D. optional). Power steering, brakes and automatic transmission are standard equipment. The basic Xplorer 307 is delivered with a driver's bucket seat, inside and outside mirrors, a 36" wide side door and wood grain vinyl interior walls. The unit has 125+ sq. ft. of usable floor space with 6'4" headroom. By creating the appropriate interior layout and selecting items from an optional equipment list, this unit may be used as a mobile laboratory, field office, traveling sales and product demonstration office, mobile radio or television studio, mobile repair center or military or police command post. A wide choice of factory options is available. These include automotive and roof-mounted air conditioning, carpeting, 4,000W. and 6,500W. generators, AM, FM and FM stereo radios, LP gas system with 90 lb. storage tank, 23,000 BTU forced air heater, 110V and/or 12V electrical system, fresh-water system, sanitation system, storage racks, cruise control, passenger seat, clock, exterior awning, chrome bumpers, wheel covers, additional side windows and a choice

of Scotch-Lite exterior color bands. The Xplorer 307 is sold and serviced by Xplorer's nationwide network of franchised dealers. The standard 307 Commercial Vehicle sells for less than \$10,000.

POWER SUPPLY: GULTON

Gulton Industries, 13041 Cerise Avenue, Hawthorne, Ca. 90250, has combined the separate battery pack, ferroresonant regulator (the normal CATV power supply) with the popular EMNB107 standby power electronics



package to get the compact model EMNB114, a fully self-contained standby power supply designed with ease of installation and maintenance in mind. Model EMNB114 features completely solid state and PC board construction for trouble-free maintenance. This standby CATV power supply system will

deliver either 30 or 60 volts at 12 amps of clean power to your cable. The system eliminates power spikes, line transients and surges and provides lightning protection. Close current and voltage regulation of the charger prevents overcharging and deep cycling of the batteries. Regulation of the system output provides current, voltage and frequency stability with overload and short circuit protection. Supervisory and alarm circuits monitor the system and indicate unit readiness and standby operation. The unit is intended for pedestal mounting for ease of installation and where pole space availability presents a problem. (Pole mounted and vault mounted versions are also available.)

ANTENNAS: LINDSAY

A super Zig Zag series of UHF and VHF antennas has been introduced by Lindsay, 418 Caredean Drive, Horsham, Pa. 19044. Actual tests of the antennas show gains in excess of quad stacked 8' parabolic dishes, while substantially reducing windload, weight and tower-space used. The UHF and VHF (highband only) antenna's vertical plane design permits direct mounting onto the tower-leg, thereby allowing for fast, easy installations.

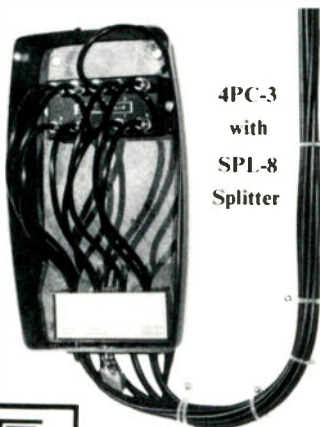
STRENGTH METERS: WINEGARD COMPANY

The Winegard Company, 3000 Kirkwood Street, Burlington, Iowa, 52601, has introduced two new VHF-UHF field strength meters, the FS-380 and FS-780. The FS-380 is a low cost antenna installer meter. It



measures absolute voltage levels, conducts antenna surveys, identifies picture and sound carriers, identifies interfering stations, measures daily signal fluctuations and is very helpful for setting up multiple antenna installations. It features a VHF range of 25 to 10,000 microvolts (both ranges easily increased by using fixed external input pads). DBMV scales from -20 to +40dbmv, separate VHF and UHF tuning sections, phone jack for identifying sound carriers (earphone provided), easy built-in calibration, long battery

IN-FIELD INVENTORY CONTROL



4PC-3
with
SPL-8
Splitter

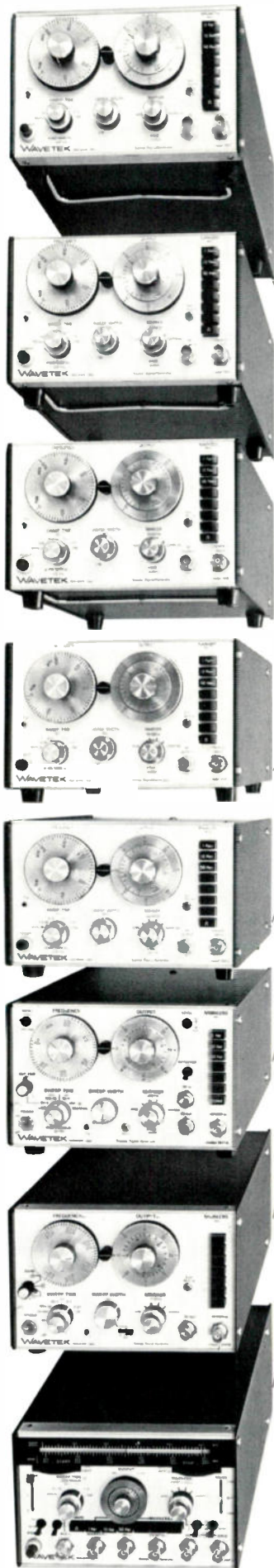
Cable Split Apartment House Terminal Boxes

- 4PC-3 Up to 4 apartments
4 outlets per apartment
- 8PC-3 Up to 8 apartments
4 outlets per apartment
- 12LT-1 Up to 12 apartments
1 outlet per apartment
- 24LT-1 Up to 24 apartments
1 outlet per apartment

Patent No. 3,610,810

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 one thousand four...
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 one thousand eight
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 two thousand...
 two thousand one...
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 to 1.4 GHz in sweepers.**

It's also how to tell the story of the most complete line of sweepers in the business. Our latest additions include the 1801A for CATV equipment testing and the 2000—a less expensive version of the spectacular 2001. All of our sweepers have rugged, solid-state designs and are suited for laboratory, production and systems use. They are available with both 50-ohm and 75-ohm calibrated RF outputs and feature pin-diode leveling, crystal-controlled markers and excellent display linearity characteristics. All include remote programming of frequency and sweep width, and can be AM or FM modulated. If you'd like more information, use the reader service card or get in touch with us directly. You can count on an immediate response.

SWEEPER MODELS*

1001A	0.5 MHz to 300 MHz	\$ 995
1002	1 MHz to 500 MHz	1095
1003	350 MHz to 650 MHz	995
1004	500 MHz to 1 GHz	995
1005	700 MHz to 1.4 GHz	995
1801A	1 MHz to 950 MHz	1445
2000	1 MHz to 1.4 GHz	1375
2001	1 MHz to 1.4 GHz	1695

*We also offer a complete line of attenuators and detectors covering the same frequency ranges.

WAVETEK®

INDIANA INCORPORATED
 P.O. Box 190, 66 North First Avenue
 Beech Grove, Indiana 46107
 Tel: (317) 783-3221 TWX 810-341-3226

life (uses common 9 volt types), standard "F" connectors, completely portable, measures all 82 TV channel picture and sound levels as well as all carriers between 88 and 174MHz. The FS-380 is supplied with a rugged carrying case. The FS-780 field strength meter provides MATV installers and technicians with accurate voltage and db measurements in the 54 to 890MHz frequency range. It is easy-to-use with a tunable RF voltmeter designed to measure carrier levels from 10 microvolts to 2 volts (-30 to +66dbmv). The FS-780 is ideally suited for all RF measurements associated with installing and servicing master antenna systems. The FS-780 can be used for measuring carrier voltage anywhere, setting traps and filters, balancing head-end amplifier outlet levels, setting isolation of taps, orienting multi-antenna arrays, signal survey work, trouble shooting interference or recording daily signal fluctuations. The FS-780 features a voltage range from 10 microvolts to 2.0 volts, DB range from -30 to +66dbmv, it measures all 82 channel picture and sound carriers as well as carriers between 88 and 174MHz, accuracy +/-1.5db VHF, +/-3db UHF, separate precision VHF and UHF tuners phone jack for oscilloscope.

**FIBER OPTICS:
RANK PRECISION**

Rank Precision Industries, Inc. 411 East Jarvis Avenue, DesPlaines, Ill. 60018, features a complete line of fiber optics for roadsign applications; a static display of cathode ray

tubes; and its Image Analyzer. Rank's Image Analyzer is an optical diffractometer for detailed analysis of electron micrographs and other photographic transparencies. Rank also displays its precision fabricating equipment used in manufacturing a range of television optics and other optical components.

**FUNCTION GENERATOR:
WAVETEK**

Wavetek, 9045 Balboa Avenue, San Diego, Ca. 92123, announces the first 30 MHz function generator. This advanced generator also adds a new trapezoidal waveform which features variable width and slope controls;



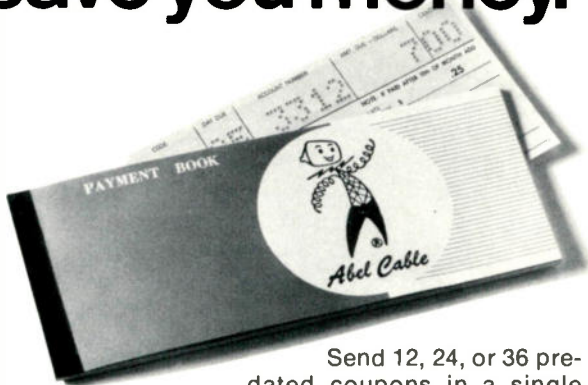
therefore, pulses may be generated with variable rise/fall times. This new capability is in addition to the symmetry control which produces fixed rise/fall pulses and sawtooth waveforms. In addition to continuous oper-

ation, the generator may be triggered or gated for single cycle or tone burst output by an external voltage or manual trigger. Phase of the starting and stopping points of the triggered waveform may be varied +/-90 degrees thus providing waveforms such as a haversine. Additional features include precision 60 dB attenuator in 10 dB steps, variable DC offset, DC voltage output, and Wavetek's unique VCG circuitry for modulating the output frequency with an ac or dc signal.

**TAPE ELECTRONICS:
INOVONICS INCORPORATED**

Model 360 Tape Recording Electronics, designed by Inovonics Inc., 1630 Dell Avenue, Campbell, Ca. 95008, replaces tube-type electronics in older single-channel professional recorders. It is designed as a plug-for-plug replacement package for Ampex 300, 350/351, and 354 tape transports and will perform with original heads. The Model 360 Electronics are also adaptable to most other single-channel tape transport and head assemblies. The 360 is completely self-contained with an internal power supply fully regulated to assure stable operation despite wide variations in line voltage. Plug-in circuit cards and solid-state design simplify maintenance and increase performance. All adjustments are accessible from the front. Panel controls include Record Gain and Repro Gain with preset CAL positions, and solid-state Monitor and Equalization switching to eliminate contact noise and to permit remote

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 CATV Contractors/Consultants
 CATV Investors

- CATV Components Mfgs., Dealers
and Distributors
 Microwave and Telephone Companies
 TV, AM, FM Broadcasters
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- Closed Circuit TV Users
 Financial Institutions, Brokers,
Attorneys and Governmental
Agencies
 Program Producers, Program
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**PLEASE CHECK
TYPE OF BUSINESS**

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 CATV Contractors/Consultants
 CATV Investors

- CATV Components Mfgs., Dealers
and Distributors
 Microwave and Telephone Companies
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 Educational TV Stations, Schools
and Libraries

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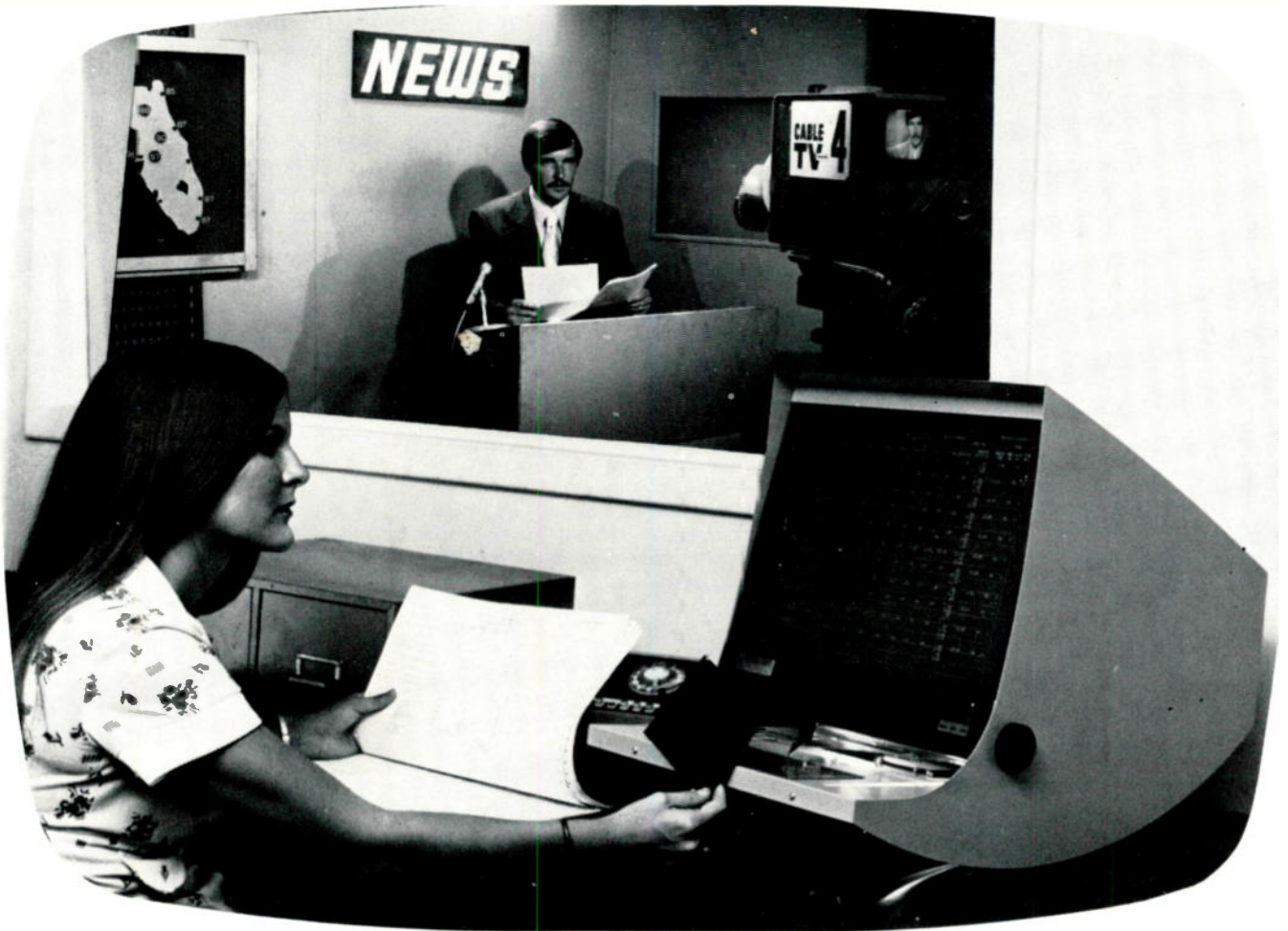
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The greatest thing to happen to cable television — since television.

(Announcing the new CATV management information service.)

Television. An invention so extraordinary, it actually led to a change in the way people live. And brought about the birth of an industry. Yours. Today, there is another idea as exciting and innovative in its own way as television. It's going to change the way you run your business. The new CATV Management Information Service.

We spent over 5,000 man hours developing, testing and perfecting our CATV-MIS. The bread and butter benefits are automated billing, accounting, record keeping and reporting. The *plus* benefits are a smorgasbord of options. Timely market penetration analysis is one of them. Statistics are another. Information like fully automated treatment of delinquent accounts, salesmen's performance, and installer efficiency are just a few of the wide variety

of reports available that can improve your profits.

What's more, CATV-MIS reports are available on microfiche, a 4" by 6" sheet of microfilm. A complete record of every customer is as close as your fingertips.

There are so many new features about the CATV Management Information Service that we couldn't possibly put them all on one page. Find out why so many other systems have chosen the new CATV-MIS for their operations — a service that saves you time and money.

For complete details and a free brochure about CATV-MIS, write to GTE Data Services, First Financial Tower, P.O. Box 1548, Tampa, Florida 33601, or call Jack Kingston at (813) 877-8021.

GTE DATA SERVICES

Calendar

NOVEMBER

6-8, Cable Communications Seminar, Engineering Extension Service, Texas A&M University, College Station, TX 77843. Contact Tom Straw, F. E. Drawer K.

14-16, Jerrold Electronics Corporation Technical Seminars covering cable fundamentals, system operation and maintenance, and CATV equipment, Dallas, TX., Contact Toni Barnett, Jerrold Electronics Corporation, 200 Witmer Road, Horsham, PA 19044.

15-17, Mid-American Regional Expo, Crown Center Hotel, Kansas City, MO. Contact Rochelle Nezin, NCTA.

28-Dec. 1, Western Cable Television Show and Convention, Las Vegas Hilton Hotel, Las Vegas, NV. Contact California Community Antenna Television Association, Suite 207, Walsh Center Building, 3137 Castro Valley Blvd., Castro Valley, CA. 94546.

DECEMBER

4-6, International Wire and Cable Symposium, Shelburne-Dennis Hotels, Atlantic City, NJ. Contact J. Spergel, General Cable Corp., 15 Prospect Lane, Colonia, NJ. 07067.

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control of both these functions. The 360 is housed in a standard rack size cabinet.

OUTPUT MODULE: CONRAC CORP.

The Conrac vector output module for the 5000 Series color television monitor is now available from Conrac Corporation, 600 North Rimsdale Avenue, Covina, Ca. 91722. The module, in conjunction with an external x-y oscilloscope, indicates visually the vector relationship of the chrominance signal. The module can be factory installed at the time of purchase or easily adapted at a later date simply with the use of a field conversion kit. It is available in versions for NTSC, PAL B or PAL M standards. Price is \$90.00 per kit. The 500 Series is a new, high-performance, small screen monitor which avoids the compromises of converted receivers. It features a single gun CRT to simplify convergence adjustments and speed monitor setup.

SIGNAL GENERATOR: TEXSCAN

Texscan Corporation, 2446 N. Shadeland Avenue, Indianapolis, Ind. 46219, announces the Model VS-340 Sweep/Signal Generator. The VS-340 is a unique Sweep/Signal Generator covering the basic microwave communications frequency bands. The unit covers 3.6 GHz in two bands. The low band covers 3.6 GHz to 4.3 GHz and high band coverage of 5.825 GHz to 6.525 GHz. A fine tuning calibration vernier provides accuracy of better than 350 KHz at 5 MHz marker intervals at all frequencies on both bands. A separate rate control is provided for each band. Sweep width is variable from 0.5 MHz to 700 MHz with an RF output of +10 dBm into a 50 ohm load. Flatness of sweep is +/- 0.1 dB over any 50 MHz interval and +/- 0.5 dB over the full frequency range. The VS-340 contains crystal controlled markers at 5.0, 50.0 and 100 MHz with 0.005% accuracy. Five sweep rates modes are available: 1. 60 Hz line rate, 2.5 to 60 Hz variable; 3. 0.05 to 5 Hz variable; 4. Manual; 5. External. A 1KHz square wave modulation feature is also built into the VS-340. The unit weighs 28 pounds and its physical dimensions are 6 7/8 x 17 x 16 inches. Price is \$4650 each; delivery six to eight weeks.

CHANNEL SWITCHER: SESCO, INC.

SESCO 1020 Automatic Channel Switcher produced by SESCO, Inc., Box 518, Friday Harbor, Wa. 98250, solves a large number of other switching problems besides providing the answer to Non-duplication requirements of the FCC. Easy to program and connect to existing systems, the 1020 ACS is expandable from basic one channel up to twelve. Timer sets itself by operation of a set switch; and programming for days and minutes is accomplished by push switches. A matrix memory board controls the time period, each channel being programmed by inserting a

diode pin at an appropriate, easy-to-read, segment. Accurate, (millisecond) switching takes place automatically. Permits channel I switching program one week in advance. Designed for local or remote control operation, the SESCO 1020 ACS will operate over telephone lines or other 2-wire metallic path, and will control coaxial switch, diode switch, relay, or direct on-off amplifier control. With the exception of pilot lamps and fuses a lifetime warranty is offered under normal use.

STORAGE OSCILLOSCOPE: TEKTRONIX

Tektronix, Box 500, Beaverton, Ore. 97005, has just added storage to its 200-Series line of miniscopes. The new 214 measures 3 x 5-1/3 x 9-1/2 inches and weighs just 3-1/2 pounds. This hand-held oscilloscope lets you make dualtrace storage measurements anywhere, anytime, with minimum effort. The 214 writes up to 500 divisions per millisecond in the storage mode, and you can view the



stored event for up to an hour. The double-insulated plastic case of the 214 lets you make safer elevated measurements. And, the rugged case insures that the scope will take the rough treatment expected of portable instruments. Many operator conveniences are built into this miniature oscilloscope. The dual one- Ω signal probes are color-matched with the vertical deflection controls to prevent measurement error. Deflection controls are designed to clearly show horizontal and vertical deflection factors. Trigger level and slope selection are simplified to one rotary control. An auto trigger mode automatically triggers the scope on the signal it receives or provides a bright reference trace with no signal applied. Turning the trigger control from the AUTO position permits selection of any combination of trigger slope and trigger level. Bandwidth of the 214 is 500 kHz with vertical deflection factors from 1 mV/div to 50 V/div. Calibrated sweep speeds range from 5 μ s/div to 500 ms/div. Rechargeable internal batteries provide up to 5 hours of nonstorage operation and up to 3-1/2 hours in the storage mode. The batteries are protected from deep discharge, by special circuits which automatically turn off the scope when the batteries drop to a predetermined voltage level. Oscilloscope costs \$985.

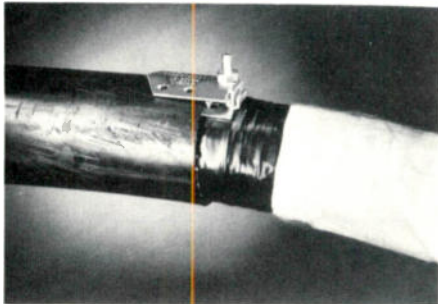
LINE AMPLIFIERS: WINEGARD

The Winegard Company, 3000 Kirkwood Street, Burlington, Iowa 52601, has added two new line amplifiers, the L-213B and

L-483B, to its L-series. The L-213B is a VHF amplifier with an output per channel of +51dbmv. Its input is 40dbmv. It also features a built-in tilt control which eliminates need for a switch. The L-483B is an UHF amplifier which features an input per channel of 33db and an output of 49db. It also features a built-in tilt control. Both line amplifiers are powered through the trunkline by voltage supplied by the distribution amplifier or auxiliary power supply. Each unit is housed in a steel cabinet with baked finish and measures 7 3/4" long, 2" wide and 1" high.

CABLE BOND: COMMUNICATIONS TECH

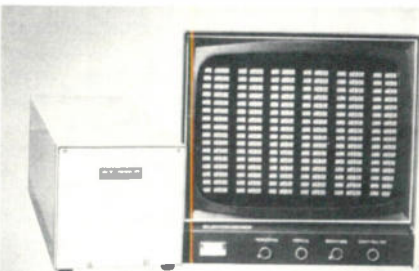
The Casey Clip is a "push-on" cable bond devised by Communications Technology Corporation 2237 Colby Avenue, Los



Angeles, Ca. 90064, for the bonding of Stalpath and other large diameter plastic sheath cables. The Casey Clip functions without punching or cutting the cable sheath or shield. One of its plates simply fits inside the cable sheath and makes contact. The other part fits over the sheath and attaches to the post on the bottom plate. The bonding bar fits over the post and is secured with special nuts with self-contained washers provided with the unit. Casey Clips are low in cost. They are made of steel, copper plated and tin plated for good electrical continuity and long lasting capability.

DISPLAY CONTROLLERS: ANN ARBOR

Parallel Display Controllers designed by Ann Arbor Terminals, 6107 Jackson Road, Ann Arbor, Mich. 48103, provides low-cost,



silent alphanumeric data display from a computer data bus. They may also be used for direct readout from parallel data peripherals such as paper tape, keyboards and card readers in system, sales demonstration and

production test applications. Reliability is indicated by two-year warranty. The Series RO200C operates with 7-bit parallel ASCII data at up to 1620 characters per second, asynchronous. It features full cursor control, plus a built-in MOS dynamic shift register memory which stores a full screen of data (up to 1920 characters). A display set of 64 alphanumeric ASCII characters is provided, with display formats up to 80 characters by 24 lines. Character size is proportional to screen size (up to 0.22" on an 11" screen, for example). Refresh rate is 60 frames per second, flicker free. Data are stored, and the underline-type cursor is positioned, under control of a memory address register in the controller.


TOOL KIT: OK MACHINE & TOOL

OK Machine and Tool Corp., 3455 Conner Street, Bronx, N.Y. 10475, makes available the DC-22-30-PT Wire-Wrapping Tool Kit. It contains pneumatic, electric and manual wire-wrapping and unwrapping tools for making solderless electrical connections with 22, 24 and 30 AWG wire. Wire cutter and stripper, connector presser and Coiltite bits and sleeves are included. Kit is available for either 110 or 220 volts.

REMOTE BATTERY CABLE: CINEMA PRODUCTS

Cinema Products Corporation, 2044 Cotner Avenue, Los Angeles, Ca. 90025, announces that a remote battery cable is now available




for CP-16 and CP-16/A camera models. The new remote battery cable permits the removal of the battery from CP-16 or CP-16/A cameras for placement in the cameraman's pocket (or some other protected area) when filming in extreme cold. Cinema Products' nicad battery, which powers the entire CP-16 or CP-16/A camera system, measures 5" x 1 1/4" x 2 1/8", and slips easily into the cameraman's shirt pocket. The remote battery cable sells for \$28.00. 

Literature

A recently revised four-page brochure describing the full line of **STA-STRAP (R) cable ties**, clamps and marker ties is available from Panduit Corp., 17301 Ridgeland Avenue, Tinley Park, Ill. 60477. Complete information is provided on 13 different cable tie sizes for bundles ranging up to 8" diameter. This includes the newest cable tie SST1.5S, a standard cross-section tie for bundles to 1 1/4" diameter. Also described are three clamps, two marker ties and the **BOW-TY™** tie for securing two bundles. The new Bulletin SS-10 includes detailed information on sizes, bundle diameters, applicable Military Specifications, minimum loop tensile strengths and uniform installation with **PANDUIT (R)** installation tools. STA-STRAP cable ties are all nylon and can be hand or tool applied. They are releasable prior to final tensioning. Another advantage is the zero insertion force required which makes installation easy.

The advantages of the **Chockfast pourable chocking system** for the mounting of large generators, main engines, and auxiliaries are described in a bulletin from Philadelphia Resins, 20 Commerce Dr., Montgomeryville, Pa. 18936. This proven technique is available in all major shipyards. It results in saving of 50% to 80% in chocking costs by reducing the time and labor required with metal chocks. The Chockfast system is approved by all major classification societies for both new construction and refitting.

Singer Instrumentation, 3211 So. La Cienega Blvd., Los Angeles, Ca. 90016, has published a brochure describing two Stoddart brand name **field intensity meters** Models NM-12AT and NM-25 T. They operate over the ranges 10KHz to 250KHz and 150KHz to 32MHz respectively. Complete specifications, block diagram, applications and accessories are given in the eight page brochure.

Detailed information on tapered **Monotube self-supporting antenna poles**, their low-land requirements and low-cost erection features is provided in a brochure from Union Metal Mfg. Co., Box 8530, Canton, Ohio 44711. Available in heights up to 250 feet with no guy wires required, the poles are listed in this eight-page brochure with information on wiring, accessories, finish, low-maintenance features and charts on design and base data. Safety and permanency factors of the poles, tested in hurricane zones for resistance to winds up to 170 mph., are discussed. Illustrations include drawings of poles and accessories and photos of installations. 

THE CATV

CLASSIFIEDS

Rate for classifieds is 25 cents a word for advertising obviously of non-commercial nature (employment, used system equipment, etc.), or \$12.50 per column inch for non-commercial advertising set in display type. Add \$1.00 for Box Number and reply service, per issue. Bold face type available for headings at 50 cents a word. Advance payment required; minimum order \$15.00. Classified rate for commercial advertising or requested discounts available. Deadline for classifieds is three weeks before issue date. Mail box number inquiries to Box Number, CATV Magazine, 1900 W. Yale, Englewood, Colo. 80110.

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Linemen and splicers who want to stay in same location for 5-6 years. Top pay and benefits. Send resume to Box No. W-1029-2.

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Two cable systems in S.E. 30 miles apart with 92 miles of plant passing 6000 homes and 1800 subscribers combined. Great growth potential. Terms negotiable. Reply to Systems, Box 9478 Savannah, Ga. 31402.

NEW GROUP

Interested in buying for cash classic systems in New Mexico, Colorado, Arizona, Texas and California. 500 to 2000 subscribers. Also interested in franchises with good potential. Include price and full details in confidence to: Bill Little, West Comm Corp. P.O. Box 1347, Las Cruces, N.M. 88001.

TECHNICIANS INSTALLER TECHNICIANS

Technicians should be able to maintain solid state broadband equipment.

Installer technicians should be able to handle customer service complaints and minor maintenance of systems and be prepared to finish training for technician position.

First phase of 400-mile system is now complete with the remainder under construction.

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FOR SALE

Used Entron & Jerrold tube equipment. All equipment in operating condition. Includes Jerrold SCA-213 (51) with related equipment and Entron LHB-254 (46). Can be used to good advantage in smaller systems, lab work and as sub level amplifiers. For information write or call: Video International, Inc., P.O. Box 5197, Tallahassee, Florida, 32301, (904) 575-1398.

WANTED

ELECTRONIC TECHNICIAN

Major CATV system has openings for qualified Technician to perform system maintenance and turn-on for a 704 mile dual cable system with Jerrold Headend equipment and 21 miles of AML microwave. Applicant must be familiar with the operation of THETA-COM XR2 Electronics. Send resume or call Jim Anderson (415) 534-4175. P.O. Box 23763, Oakland, California 94623.

WANTED

ASSISTANT MANAGER TECHNICIAN

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TV Communications is published by Communications Publishing Corp., publishers of CATV Weekly, the CATV Directory of Equipment, Services &

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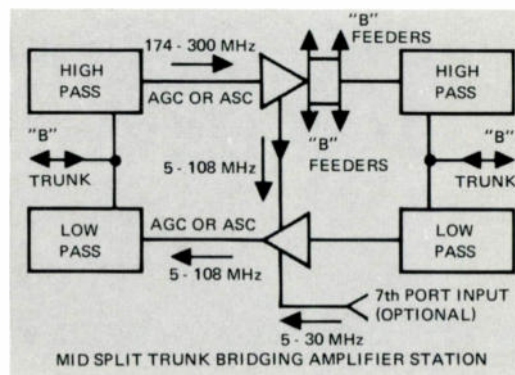
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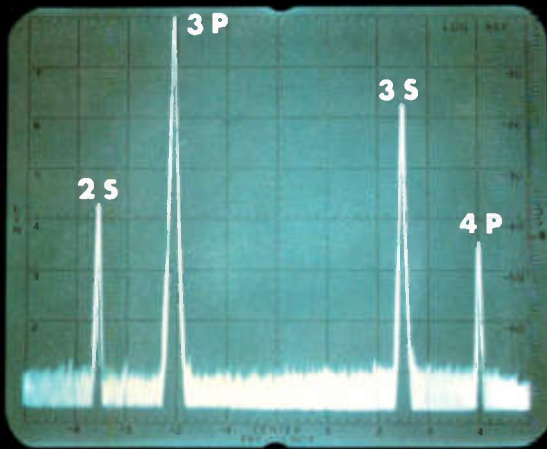


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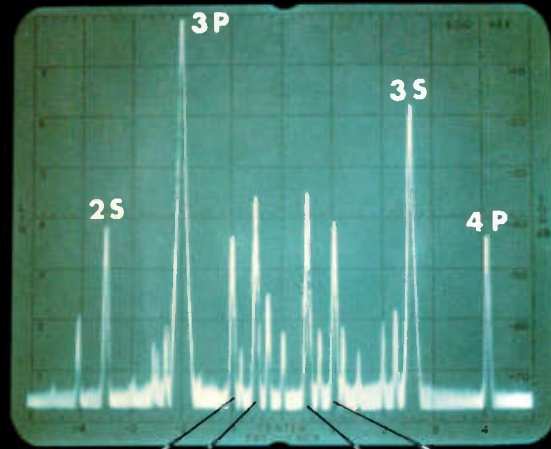
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(Typical heterodyne processor)
 — Visible intermodulation products —
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 2. 62.75 MHz = 2xch4P - ch4S and 2xch3P - ch2S;
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 1C7 MHz Osc. - 43.25 MHz - 63.75 MHz
 4. 64.25 MHz = 2xch2S - ch2P and 2xch3S - ch4P.

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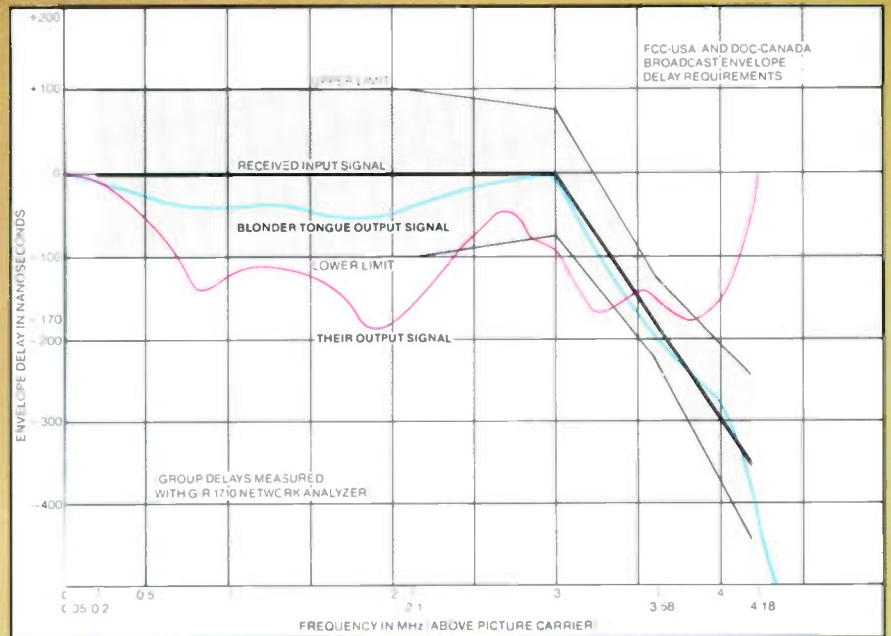
"Our" headend produces better results than "theirs." The Hewlett-Packard spectrum analyzer photos, at the top, and the chart to the right, tell why.

The above photos show the results of processing CH3 carriers at a level of +10 dbmv when CH2 and CH4 carriers are present at an input level of +20 cbmv. The Blonder-Tongue processor shows no 2nd order or 3rd order beats with unbalanced input levels even greater than shown above.

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Model 2-3400
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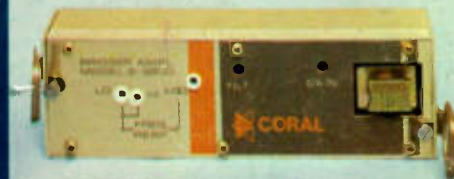
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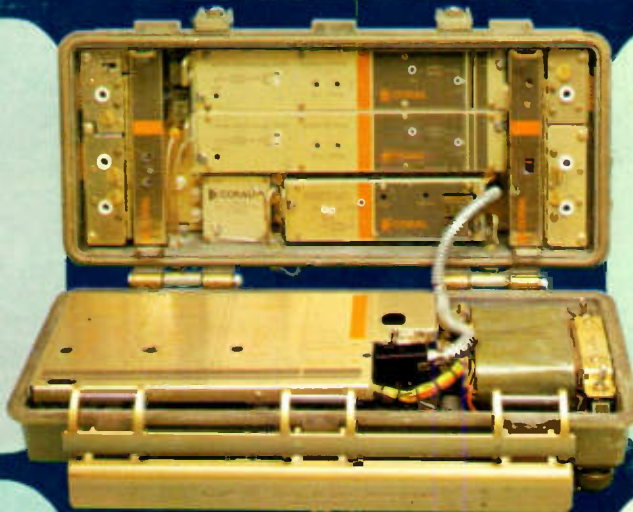


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