## Broadcasting Apr 30

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WNEP-TV, covering all of Northeastern & Central PA, is represented by Katz American Television, the industry's top rated national sales representative.



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Source: ARB Feb '84, Early News M-F average Rating and Total HH. Based on Top 100 equal facility markets. Subject to qualifications in local reports.

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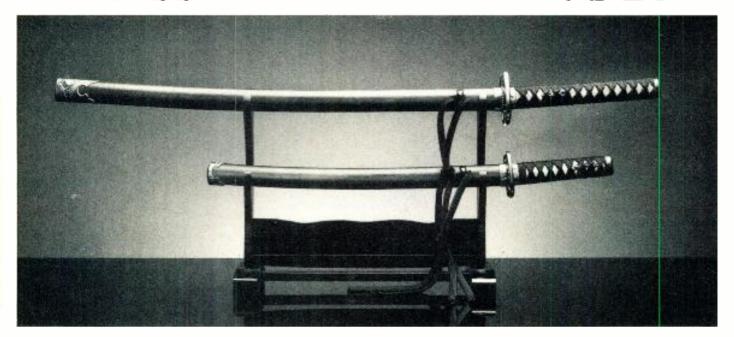
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1983-84

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#### The Research Group

Radio's Strategic Research Team

#### Broadcasting # Apr 30

#### Tauke and Tauzin throw in the towel on broadcast dereg Preview of NAB 84 □ Post view of MIP-TV At Large with FCC Chairman Mark Fowler

**WALL HANDWRITING** □ Tauke and Tauzin end talks with Wirth in fashioning broadcast deregulation bill. **PAGE 35.** 

**STATE OF THE INDUSTRY** 

NAB president, Eddie Fritts, reviews list of accomplishments broadcasters have seen during Reagan administration; previews prospects for future deregulation. **PAGE 36**.

**CABLE'S PRESENT** ☐ Kastenmeier introduces copyright bill that would effectively cancel CRT rate-hike decision of 1982. **PAGE 37**.

BROADCASTER'S PRESENT □ Trible introduces bill that would codify FCC's must-carry rules. PAGE 38.

CHANGING OF GUARD □ Rubenstein among three top Mutual executives who resign; Clements takes over reins. PAGE 39.

MORE UNDERBRUSH ☐ FCC votes to allow ITFS licensees to sublease time, pre-empts state regulation of common carrier service on FM's. PAGE 39.

**HOT TIME** □ Proliferation of home video sales, joint venturing and co-productions highlight annual MIP-TV gathering. **PAGE 41**.

NAB 84 □ New and improved products proliferate

on exhibit floor of NAB's 62d annual convention. PAGE 46. A list of exhibitors runs from PAGES 48 to 102. The agenda appears on PAGES 104-112. The hospitality suite listing begins on PAGE 112.

FREEDOM FIGHTER - FCC Chairman Mark Fowler has spent the last three years, embarking on a course of unregulation. In this "At Large" with BROADCASTING editors, Fowler describes the commission's accomplishments and maps out its goals. PAGE 116. An accounting of the Fowler FCC's deregulatory track record appears on PAGE 122.

SEPARATE PEACE — HBO's Biondi says relations between pay cable network and Hollywood have improved; outlines company's future course. PAGE 130.

ON THE ROAD TO HDTV □ Advanced Television Systems Committee moves closer to agreement on improving television pictures. PAGE 142.

HILL HEARING □ NTIA chief answers House subcommittee's questions on turf fight between State and Commerce departments. PAGE 153.

GOLDEN YEARS □ Anthony Cassara, president of Golden West Television and Wometco Broadcasting, finds opportunities in the changing business of television. PAGE 181.

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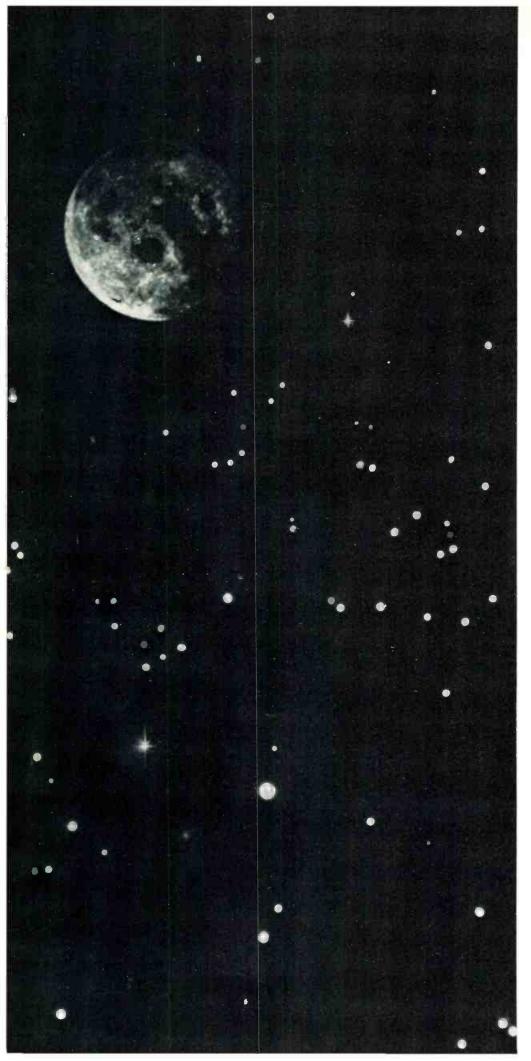
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#### More 'choice' than 'prime'

Agency officials say second-quarter prime time scatter market in television networking is soft; network sales executives say demand is sufficient. There seems to be consensus, however, that cost-per-thousand is averaging 15% lower than when second-quarter market began. Though networks might wish for stronger demand, all three are 97%-plus sold in prime time, according to industry sources, and are thus protected better against further C-P-M decline than CBS was last year when it held back excess inventory.

Numerous reasons are being offered for softness in prime time prices, including shift of money to other dayparts, Olympic siphoning and additional units that networks added to inventory last year.

#### **Big boost**

According to data to be released this week by Larchmont, N.Y.-based Radio Expenditure Reports, national spot radio business in March rose 10.6% to \$58,038,300. This is healthy improvement over January and February, when spot advertising expenditures were up only 3.6%

#### Awaiting signal

FCC Office of General Counsel is said to be working on notice of proposed rulemaking seeking to define all pay video services-whether delivered directly to homes by satellites, subscription TV or multipoint distribution services—as "hybrid" and not subject to statutory broadcast regulation. Word is that draft was ready for action earlier this year, but commission opted to keep item under wraps until it sees how Court of Appeals in Washington rules on pending direct broadcast satellite cases. During oral argument in one of those cases, Judge Abner Mikva expressed incredulity that FCC could entertain notion that DBS need not be considered broadcast service (BROADCASTING, Feb. 27).

#### First things first

Decision by Daytime Broadcasters Association as to whether or not it will merge its membership with National Association of Broadcasters or National Radio Broadcasters Association may be made this week. DBA board is holding meeting after its forum on Monday afternoon at NAB convention in Las Vegas and is slated to discuss topic, but it may delay decision. Its first order of business is to settle controversy over Senate bill S.880, which would expand daytimers' operating hours. Bill has aroused strong opposition from clear channel broadcasters. DBA may push for modification to legislation in effort to assuage clear channel stations' concerns and gain passage.

#### By himself

Representative Tim Wirth (D-Colo.), chairman of the House Telecommunications Subcommittee who has announced bid for re-election, has easy race so far. He faces no opposition in Democratic primary, and no Republican candidate has surfaced yet.

#### Money talks

Interest evidenced by "educational" groups in instructional television fixed services since FCC loosened rules to permit them to turn profit from "excess capacity" would appear to prove something. According to FCC records, commission received only 26 applications for new ITFS facilities from beginning of 1981 until it loosened its ITFS rules last May (BROADCASTING, May 30, 1983). Since then, commission has received 449 applications for new ITFS facilities.

#### Japanese partners

United States Satellite Broadcasting, ambitious DBS venture of Hubbard Broadcasting, may soon receive what could amount to down payment on twosatellite DBS system. Okura Trading Ltd., which is representing USSB in Japan, has reportedly lined up group of Japanese investors willing to ante up minimum of \$30 million.

#### Charmed circle

With just under 16 million homes passed, Financial News Network expects to be metered by Nielsen ratings service "some time in the next week, barring any glitches," according to A. Scott Hults, sales vice president. One possible problem

is how to discriminate between FNN's cable and UHF viewers, since FNN programing is cable must-carry in dozen markets. Meantime, Nielsen is conducting telephone coincidental survey for 13-hour business and financial news service, contacting viewers who have entered FNN in Nielsen diaries.

#### Try again

It's safe bet that CBS will file for reconsideration this week in Washington district court over right to videotape deposition of Richard Helms, in connection with Westmoreland-CBS libel case (see page 40). Several weeks ago court rejected network's plea for ruling allowing it to do so, over Helms's objections. So far, in papers filed with court, CBS has not directly referred to what is obvious concern with any testimony given by former CIA chief-that he was convicted (with two-year suspended sentence and \$2,000 fine) in 1977 of lying to congressional committee about CIA's role in Chilean elections in early 1970's. CBS wants videotape of Helms deposition in event he does not appear at Westmoreland trial, so that jurors will have more than bare transcript to assess value of his testimony.

#### Deal near

Word is that ABC Radio is close to sale of WXYZ(AM) Detroit, valued at \$4.5 million-\$6 million. Prospective buyer is said to be station vice president and general manager, Charles D. Fritz.

#### Pie in the sky?

United Satellite International Communications Inc. (USIC), Peekskill, N.Y.-based start-up company, claims to be developing novel, 24-hour-a-day cable news service. Advertiser-supported network would import unedited newscasts from around world and distribute them to cable affiliates via satellite, according to vague promotional literature. Foreignlanguage newscasts would be dubbed with English translations, it said. USIC representatives have been talking to businessmen in Eagle Pass, Tex., about leasing land in border town for uplink and operations center and have generated interest as well as skepticism there. Donald Hanauer, head of USIC could not be reached for comment last week.

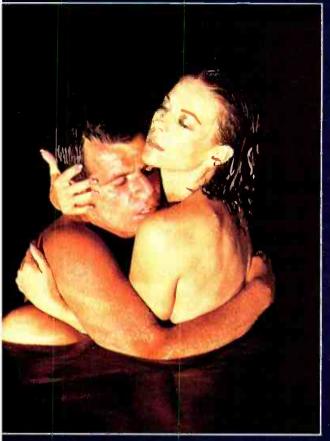
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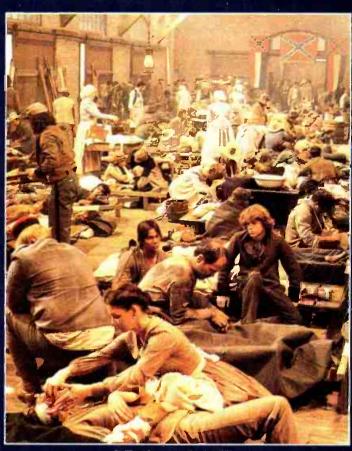




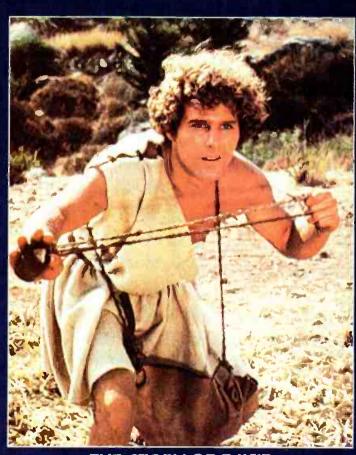
FROM HERE TO ETERNITY



BREAKING UP IS HARD TO DO



BEULAH LAND



THE STORY OF DAVID

#### Cablercastings

#### Another station aloft

United Video, the Tulsa, Okla.-based satellite common carrier, announced last week that it would create yet another superstation by putting KTVT(TV) Dallas-Fort Worth on RCA's Satcom IV satellite this summer. It will be the carrier's third superstation: Since late 1978 it has been distributing wGN-TV Chicago to cable systems via Satcom III and later Satcom III-R and it plans to begin relaying wPIX(TV) New York to systems tomorrow (May 1) over Satcom IV.

United Video's decision to put Tribune's WPIX and Gaylord Broadcasting's KTVT on the bird is based on the belief that it can persuade many of the systems that now import the signals by terrestrial microwave through other carriers to switch to the satellite. According to Jeff Treeman, vice president of marketing, the belief seems to be well founded. He said United Video has been able to sign up 152 systems (serving around 900,000 subscribers). Most of the systems, he said, are switching over from microwave. Although the stations are intended to be "regional" superstations, their signals will be available to any cable systems with an earth station aimed at Satcom

According to Treeman, KTVT will be put on the bird on June 15 for testing and the service will be officially launched on July 1 United Video is looking at independents that reach cable systems through microwave networks in other regions as potential future superstations. "Independent stations are the best bang for the buck in basic cable programing," said Treeman, "and a lot of cable systems are beginning to realize that."

#### 'HiLife' coming to life

A new adult entertainment service, HiLife Channel, for cable and other pay TV outlets will debut July 1 and will be headed by Paul Klein, former president of The Playboy Channel. The service is being launched by Domestidyne, a joint venture of Microdyne and Domesticom Corp., the latter based in New Orleans and operating private cable systems (SMATV) and pay-per-view systems in hotels and motels. HiLife will offer adult-oriented programing on a pay-per-night, pay-per-view or monthly subscription basis, to cable operators, apartment complexes, hotels and motels. The company says it will offer a "tasteful" menu of programs, with nothing X-rated.

The new service will be transmitted by scrambled signal nine hours per night from 9 p.m. to 6 a.m. via Westar V (transponder 10X), which has access to more than 5,000 cable systems reaching 30 million homes. Domestidyne is leasing its transponder space from American Buildings Inc. Microdyne will provide specially designed encryption and decoding equipment. Viewers will order pay-per-night and PPV programs

with a special telephone access code to cut down on unauthorized viewing (especially by children).

Initially, Klein said, all of the HiLife programing will come from outside sources, but the service intends eventually to produce some of its own programing. Klein will report to Stuart Levin, president and chief executive officer of Domestidyne.

#### It's Showtime, folks

Mike Weinblatt, president and chief operating officer, Showtime/The Movie Channel, told members of the Washington Metropolitan Cable Club that Showtime's original programing "will take the high road," but will not be "high brow" or of limited appeal. As an example, he cited *The Paper Chase*, the series Showtime picked up after CBS



Weinblatt

dropped it due to low ratings. The show has broad appeal, he said, although not broad enough for a broadcast network. "It is a high quality, intelligent program and the kind of project we intend to do more of."

At the same time, Showtime would eschew "exploitative projects the networks are famous for—particularly in the madefor-TV movie area," he said. "You will not see Mother Was a Teen-Age Prostitute on Showtime."

If Weinblatt has any doubt that the future of cable is bright, he wasn't about to let anybody know about it. Many of the homes in cabled areas that are now labeled "untouchables," he said, are, in fact, "distinctly touchable... We'll get them as we keep learning how to market to them." Showtime will do its part, he said. At this year's National Cable Television Association convention, he said, Showtime will unveil a new advertising campaign.

Weinblatt also set forth his belief that in two years the triple-pay package will be the industry standard. "And because of the plans we're making, it's my belief that Showtime and The Movie Channel will be two of the three pay services sold in that triple."

#### Mickey says a million

Disney Channel President James Jimirro is predicting that the family-oriented pay cable service will pass the one-million-subscriber mark "some time within the next serveral weeks." The estimate comes on the heels of an April 18 announcement that the Disney Channel is being added to Group W Cable systems serving 300,000 homes in the Los Angeles area. Disney officials peg the March 30 subscriber total at 916,000 homes with the break-even point of two million attainable by the service's second anniversary. Jimirro has also announced that the channel's third made-for-pay feature is in production with a fourth scheduled to begin filming soon in Spain.

Meanwhile, the Disney Channel came under attack from the National Coalition on Television Violence, which monitors television networks. NCTV said it found 18 incidents of violence in each hour of the pay service's cartoon programing and nine in each hour of noncartoon programing. In 43 hours of prime time programing surveyed, the coalition recorded 55 murders and 57

attempted murders.

#### Strike on hold

A decertification vote has been scheduled for May 3 for members of the bargaining unit represented by the National Association of Broadcast Employes and Technicians at the Financial News Network in Santa Monica, Calif. FNN suspended negotiations with NABET on April 13 (BROADCASTING, April 23) after management received a petition signed by 41 of 61 employes indicating that they "no longer wish to be represented by NABET." The union, which represents news, production, technical, engineering and facilities employes at FNN, has been striking the financial and business news service since March 19. All employes, except for six who have taken other employment, have returned to work following suspension of picketing April 13. Processing of unfair labor practices charges filed against the network by NABET has reportedly been put on hold pending the decertification vote results.

#### New man in Beirut

Cable News Network has appointed Mark Dulmage bureau chief of its Beirut bureau, replacing Jeramy Levin, who was kidnapped March 7 and has not yet been released. Dulmage has been an executive producer at CNN in Atlanta since May 1980 and before that was a news editor at both WDVM-TV and WTTG-TV in Washington. Meanwhile, negotiations to secure Levin's release are continuing.

Book report. The National Cable Television Association's 1984 Directory of Cable Education and Training Programs is now available. The 89-page book lists training centers, junior colleges and universities in the U.S. with instruction in cable technology and management, and includes information on entry requirements, curricula, fees and financial assistance. Copies are available for \$5 from Association Affairs Department, 1724 Massachusetts Avenue, NW, Washington, 20036.

#### More music videos

Superstation WTBS(TV) Atlanta has renewed its 11-month-old music video series, Night Tracks, for an additional 52 weeks beginning this June. The series airs for six hours every Friday and Saturday night and features approximately 80 music videos in each program. The producers of Night Tracks, Tom Lynch and Gary Biller, have sold to WTBs a second series, Chartbusters, which will air from 11 p.m.-midnight on Saturday beginning later this year.

In an unrelated announcement, Turnerowned Cable News Network said it will expand its daily Olympic games coverage to three weekend cablecasts. *The Games of '84*, anchored by Mike Cowman, "will follow the paths of leading amateur athletes hoping to qualify for this year's summer games." The updates will continue to air daily during six CNN Sports segments.

#### School day

Terry Sanford, chairman of The Learning Channel, the nonprofit satellite-delivered basic cable educational service, announced that TLC's board has approved a January 1985 target date for the service's expansion from 10 to 24 hours a day. "[I]t is essential," said Sanford, "that we extend our programing into prime time when the largest num-

ber of adults have the time to watch television." TLC now programs from 6 a.m. to 4 p.m. NYT, on Satcom IIIR. According to Harold Morse, president of TLC, several different deals for the increased transponder time are in the works. In addition, Sanford announced that Morse, and John Frazee, group VP, Centel Corp., and president, Centel Cable Television, have been named to the board of directors.



And the winner is. As part of Cinemax's recent launch in Wilkes-Barre, Pa., its sister service, HBO, honored one of its 365 pioneer subscribers with a lifetime subscription to Cinemax. Making the presentation to the winner, Marion Sabestinas, were (I-r) Hoyt Walter, vice president, Service Electric Cable TV, the local cable company; Wilkes-Barre Mayor Thomas McLaughlin; Sabestinas; Steve Davidson, HBO senior vice president, and Ed Ganc, manager, Service Electric Cable TV.



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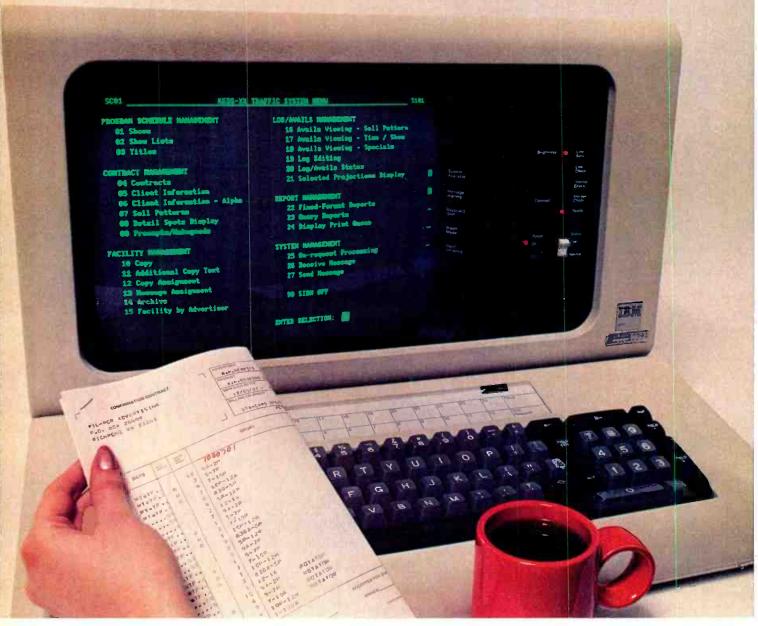
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- · Inventory control
- · Dub lists
- · Cartridge labels

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Let us show you more about how the Kaman Broadcast Systems can provide you with present and long-term solutions to your problems now. Developing software for broadcasters is our business. Call us at 303-599-1470. Security is also built into its operation ... users enter their assigned password, and the system determines the information they can use. Your employee files, for example, can be restricted to a select few.

#### OTHER KAMAN BROADCASTING PRODUCTS

Autoswitching Interface System: passes the log directly to engineering and retrieves following airing for automatic billing.

Accounting: includes capabilities for General Ledger, Payroll, Fixed Assets and Accounts Payables.

Film System: inventories feature and syndicated films. Amortizes as you prefer. Includes payables to vendors. The system is unique in that it is designed to forecast for your station . . . what you have

> contracted for the future, costs versus cash flow so you know what you can afford to bid. This system is scheduled for release in late 1984.

Interface your Broadcast Management System with your National Reps. Your Reps will be able to have access to whatever you want them to have (and no more) to help them close sales on your hot avails. Currently under research and design.

All new Kaman Systems software modules can be interfaced with all other Kaman Broadcast Systems software, even if added at a later date.

#### THE KAMAN DIFFERENCE

We pride ourselves on the fact that our training, installation and customer services people are broadcasters. Our systems are designed from the user point of view and in broadcast language. All Systems are easy to learn, operate, and bring up. Our program consists of station personnel being in Colorado Springs for advanced training, and our installation team being at the station for instruction and live conversion. We have Customer Service personnel available thereafter.

At Kaman, today's quality is tomorrow's reputation.

#### usiness-L

RADIO ONLY

Missouri Tourism □ Co-op advertising campaign will air in 18 markets in Oklahoma, Nebraska, Kansas, Iowa and Illinois for four weeks over eightweek period, starting in mid-July. Commercials will be carried in morningsand afternoons. Target: adults, 25-54. Agency: Kenrick Advertising, St. Louis.

Diamond Department Stores □ Oneweek flight will be conducted in Las Vegas, Phoenix and Tucson, Ariz., markets in mid-May. Commercials will be scheduled in all dayparts during weekdays and weekends. Target: men. 25-49. Agency: Grey Advertising/Twin

Metrocall □ Beeper system for professional persons will start eightweek flight in July in Richmond and Roanoke, both Virginia, while its service for consumers will begin two-week flight in Washington and Baltimore this week. Commercials will be carried in all

dayparts on weekdays and weekends. Target: adults, 18 and older, and adults, 25-54. Agency: Demaine, Vickers & Associates, Richmond, Va.

Knudsen Corp. □ Three-week flight for dairy products will start in mid-May in 18 markets. Commercials will be slotted in mornings and afternoons on weekdays and weekends. Target: women, 18-49. Agency: Dailey & Associates, Los Angeles.

Alaska Seafood Marketing Institute Generic promotion campaign for Alaska seafood is set to begin in late June for four weeks in eight markets, including Atlanta, Boston, Chicago and San Francisco, Commercials will be broadcast in all time periods during weekdays and weekends. Target: women, 25-54. Agency: Evans/Pacific Inc., Seattle.

TV ONLY

Land O' Frost - Packaged frozen meat products will be spotlighted in two four-

week buys in 14 markets, beginning May 21 and Aug. 20, respectively. Commercials will be inserted in daytime and fringe periods. Target: women, 25-54. Agency: Ron Berns & Associates, Chicago.

Smuckers □ Fruit spread will be promoted in 12-week flight beginning on May 21 in top 100 markets. Commercials will be carried mostly in daytime but early fringe will also be used, Target; women, 25-54, Agency: Wyse Advertising, Cleveland.

Valvoline □ Motor oil will be highlighted in four-week flight starting in late July in about 50 markets. Commercials will run in prime, fringe, sports and news programs. Target: men, 18-49. Agency: Fahlgren & Ferriss, Cincinnati.

Flower City Stores □ Patio furniture will be featured in one-week flight to begin in early May in eight markets. Commercials will appear in daytime and fringe periods. Target: adults, 25-54. Agency: Labelle & Shallbetter, Minneapolis.

Citizen of America - U.S. marketing company of Citizen Watch Co. breaks campaign this week estimated to cost between \$12 million and \$15 million for remainder of year in 23 top markets. Campaign will be flighted for four weeks in some markets and run continuously in others. Commercials will run in prime time, late news and late fringe. Target: adults, 18-49. Agency: Levine, Huntley, Schmidt & Beaver, New York.

RACIO ANO TV

International House of Pancakes Restaurant chain will begin five-week flight on television in early May in eight markets, supplemented by two markets in radio. Commercials will run in all dayparts on radio and in daytime and fringe on television. Target: adults, 25-54. Agency: Brooks Advertising Inc., Palos Heights, III.

Frederick & Herrud - Bacon will be advertised in 15 to 18 markets, with contingency plans for 10 additional markets, in four-week flights starting in early May. Commercials will be carried on radio in all dayparts and on television in daytime, prime access and prime time. Target: women, 25-54. Agency: De Leew Hill & Associates, Southfield, Mich.

#### THANK YOU, NAB MEMBERS!

Since it's not possible to shake hands with each of you personally, I'm taking this means to express my appreciation to all of you who supported me during my recent campaign for the NAB TV Board of Directors.

Being elected to the Board is a high honor and I'll work hard to be worthy of the trust you have placed in me.

Thank you for your help and support. Lets stay in touch!

Sincerely,

Warin Orgs

Wallie Dunlap



Washington, D.C.

## ANYONE CAN SELL THE NUMBER ONE RATED STATION

We are specialists.

Our specialty is selling in the highest competitive sales situations.

In many markets there is only five tenths of a point separating the number two station and the number seven station for a four-station buy.

If our station is the fourth, fifth or even seventh, our strength is our ability to get to be part of that buy.

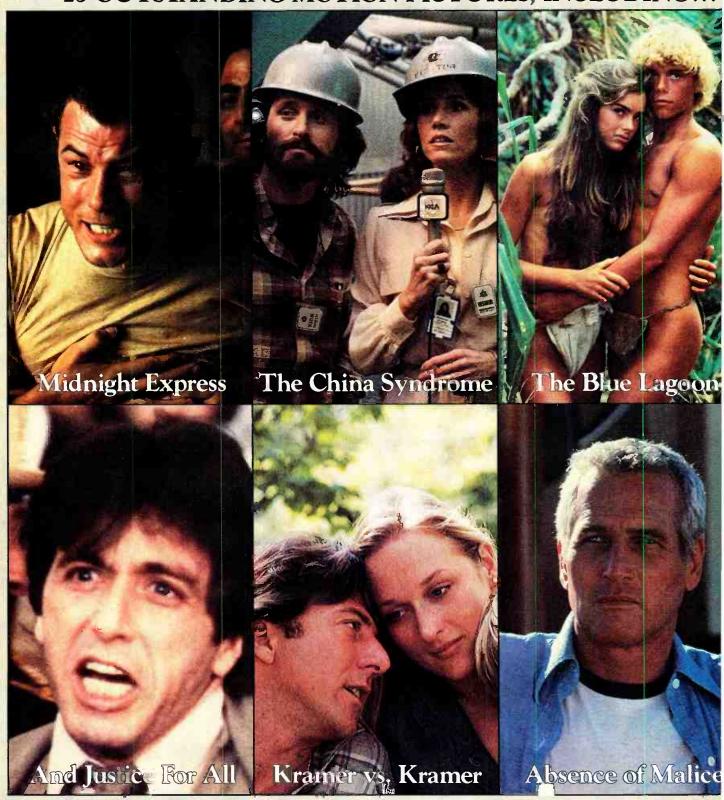
Put Masla Radio winners to work for you.



Winners have to be hungrier than losers.

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**PHOENIX** 

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**NASHVILLE** 

**ORLANDO** 

**NEW ORLEANS** 

**MEMPHIS** 

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**OKLAHOMA CITY** 

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KNOXVILLE

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WEST PALM BEACH

**ALBUQUERQUE** 

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LAS VEGAS

**AMARILLO** 

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BOISE

CHICO

**MEDFORD** 

LAKE CHARLES

HONOLULU

MANCHESTER

GLENWOOD SPRINGS, CO.

#### **VOLUME IV DELIVERS**



#### Adr Vantage

Katz's look at radio. Katz Radio reports that 25-54 demographic was most requested by agencies in first quarter of 1984, although its percentage slipped to 40% from 42% in comparable period of 1983. In second place with 19% was 18-49, up from 16% last year, and in third spot was 18-34 with 11%, same as last year. Report also showed increase in requests for Metro Area data, which climbed to 81% in first quarter of this year versus 74% last year. Katz said, most requested daypart was Monday to Friday, 6 a.m.-7 p.m., with 30%, followed by Monday to Friday, 6 a.m.-7 p.m. plus weekend with 27%, and full rotation packages at 16%. Almost 80% of all requests were for 60-second announcements. Average number of weeks and markets per campaign was five, whether 52-week advertisers were included or

ASTA seminar. Approximately 200 executives of advertising agencies and client firms attended 12-minute presentation in New York last Wednesday (April 25) under auspices of Advertiser Syndicated Television Association. Presentation extols merits of advertiser (barter) syndication and suggests that this form of sponsorship be used to complement network television buys. Advertisers and agencies are reminded that advertiser syndication can provide extensive coverage and impact at cost-efficient prices. Presentation offers scenes from advertiser-syndicated offerings for 1984-85 from 19 companies belonging to ASTA. Goals of ASTA, which was formed last year, are to provide wider choice of better quality programs; standardize contracts and procedures in advertiser syndication; supply improved research for syndicated programing, and develop information for advertisers, agencies and television stations.





Ad coalition. Agency advisory board made up of broadcast media supervisors and directors from seven major ad agencies has been formed by Major Market Radio ("In Brief," April 16). Board members pictured at Major Market's New York headquarters are (I-r): Mary Lou Ahern, radio supervisor, Needham, Harper & Steers; Paul Thury, radio broadcast supervisor, Scali, McCabe & Sloves; Elizabeth Soldinger, vice president/media supervisor, Gaynor Media; Dennis McGuire, spot radio supervisor, Cunningham & Walsh; Art Catalanello, broadcast buying supervisor, Ogilvy & Mather, and Joanne Taub, assistant media buyer, Grey Advertising. Not pictured is Karen Fishback, vice president/broadcast director, Bozell & Jacobs.

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assistant editors.

John Eggerton, Susan Dillon, staff writers. Anthony Sanders, systems manager. Jeanne A. Omohundro

research assistant

Senior Editorial Consultants Edwin H. James (Washington) Rufus Crater (New York)

Editorial Consultants Frederick M. Fitzgerald (Washington) Rocco Famighetti (New York)

#### Broadcasting ■ Cablecasting

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#### **Advertising**

Washington

Gene Edwards, director of sales and marketing. John Andre, sales manager (equipment and engineering).

Doris Kelly, sales service manager. Christopher Moseley, classified advertising

manager. New York

David Berlyn, senior sales manager Charles Mohr, Ruth Windsor, sales managers

#### Marie Leonard

advertising assistant. Hollywood

Tim Thometz, sales manager.

#### Circulation

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#### Production

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Philippe E. Boucher, controller.
Albert Anderson.
Irving C. Miller, financial consultant.
Debra Shapiro, secretary to the publisher.

Wendy J. Liebmann.

Corporate Relations Patricia A. Vance, director.

#### **Bureaus**

New York: 630 Third Avenue, 10017.
Phone: 212-599-2830.
Stephen McClellan, associate editor.
Vincent M. Ditingo, senior editor; radio. John Lippman, assistant editor. Geoff Foisie, staff writer

Hollywood: 1680 North Vine Street, 90028. Phone: 213-463-3148.
Richard Mahler, correspondent.

Tim Thometz, Western sales manager Sandra Klausner, editorial-advertising assistant.



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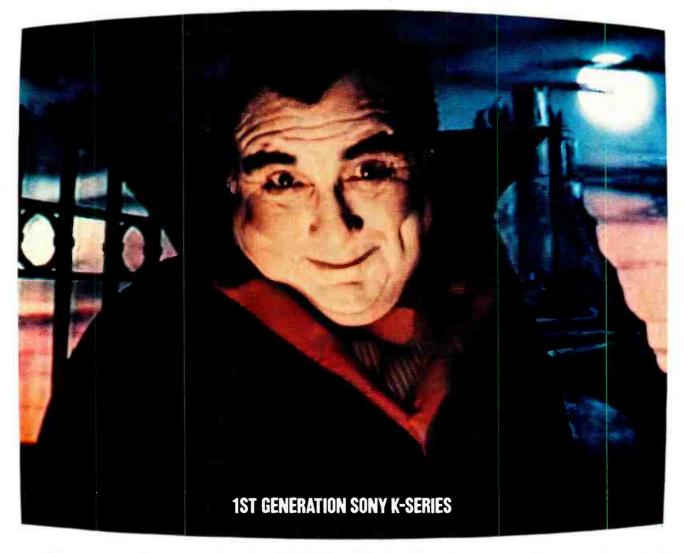
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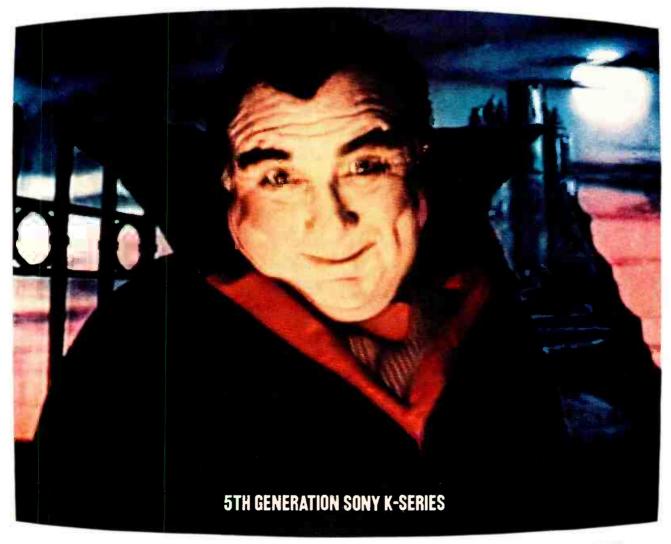


You can search the tape manufacturing facilities from Toledo to Transylvania and you'll go bats trying to find a ¾" videotape that'll render pictures like the new Sony K-Series.

In the deep recesses of the Sony labs, our scientists have discovered the secret to long life. No longer will multigenerations draw the color out of your production. This is due in part to Sony's exclusive signal retention binder. It keeps the signal on the tape under the most demanding uses, even extreme temperature fluctuations.

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## CAN LOOK GENERATIONS.



signal-to-noise ratio in the industry. This new Sony U-matic® tape is also distinguished by a smoother tape surface. It reduces headwear. So you not only increase your tapes' usability, but your tape recorder's as well.

And there's one other significant factor to consider. After close examination of videotape, we've discovered one thing is consistent: the inconsistency of tape. This is a problem you won't have to face with Sony K-Series. The millionth one you buy will be a mirror image of the first.

So if you're looking for a U-matic tape that gives you better pictures that last longer, look for the one designed for the run and rerun and rerun. New K-Series from Sony.

The Tape Measure In Video.



#### Monday#Memo

A lottery regulation commentary from Joel Levy, Cohn and Marks, Washington

#### On the legal edge of gambling and advertising

Broadcasters gather this week for their annual convention in Las Vegas. Many will indulge in what only Las Vegas and now Atlantic City offer: legalized casino gambling. The games are baccarat, blackjack, craps, roulette, poker, and, of course, the slots. Put up your money, consideration, take a chance with lady luck, and maybe your prize will cover convention expenses—and then some. But don't count on it. About 12 million visitors to Las Vegas lost nearly \$1.9 billion in the local gaming halls in 1983.

Broadcasters may enjoy the casinos that never close, but they had better not advertise or promote such activities on radio and television stations.

Since adoption of the Communications Act of 1934, federal statutes and FCC regulations have barred the broadcast of "any advertisement of or information concerning any lottery, gift enterprise, or similar scheme" over radio or television stations. Similar provisions of the federal criminal code prohibit the use of the mails to distribute lottery information and cover newspapers and other forms of printed matter that travel in interstate commerce. All of these statutes have their origin in the 19th century when state scandals involving fraudulent lotteries occurred. As state legislatures outlawed lotteries, the federal government pitched in by prohibiting the interstate trans-portation of lottery information or tickets and, later, the distribution of such information electronically.

Now the pendulum has swung the other way, and state-authorized and -operated lotteries are a principal means of funding a variety of local activities, primarily education. In addition to legalized casino gambling in Nevada and New Jersey, 21 states conduct legal lotteries and 47 of the states and territories permit the operation of bingo. A variety of other gambling-type activities, such as parimutuel betting on greyhounds and horses, jai alai, and off-track betting are now legal in numerous states.

These changes in the social, economic, and moral climate that permit and encourage public participation in games of chance have not been followed with substantial reform in the criminal statutes prohibiting advertisement or promotion of this aspect of the growing tourist and entertainment industry. In 1975, Congress did lift the ban on advertising of state-conducted lotteries, but no effort was made to rationalize the lottery laws in light of the pervasive extent of legal private gambling. The result is anomalous, at

A state, such as New Jersey, conducts a statewide lottery, promotes and advertises it, and at the same time legal, state-authorized,



Joel H. Levy is a partner in the Washington law firm of Cohn and Marks. A graduate of Harvard Law School, Levy worked in the FCC's rules and standards division of the Broadcast Bureau from 1960 to 1962 and in the litigation section of the Office of General Counsel from 1963 to 1965. He joined Cohn and Marks in 1965 and has been a partner since 1971.

but private, casino gambling may not place similar advertisements or promotional material on the air and in the mails. The original purpose of the federal lottery statute was to help enforce local prohibition of lottery activity. Now the effect of the ban on advertising of any lottery information, other than that of state-conducted lotteries, has been to turn the federal statute into a device to shield state-authorized lotteries from the full competition of private legal lotteries. Current law and federal regulation thus unfairly descriminate, particularly against legal casino gambling. Broadcasters are deprived of the opportunity to sell their air time, and perhaps more important, as with any restriction on the advertisement of lawful products and services, the ultimate loser is the consumer.

An effort is now under way in the Congress, led by Senator Paul Laxalt (R-Nev.) to remove the federal restrictions on advertisements of private lotteries "authorized, licensed, and regulated by a state acting under authority of state law." This effort has not received much attention, if any, from the broadcast industry, yet its interests in this bill and its impact upon the merchandising of promotional games are much at stake.

Give-away promotions are a familiar means to promote retail products and services. Escaping the clutches of the lottery laws in designing such games and promotions has long bedeviled the advertising industry, media outlets, and their lawyers. The federal treasury is regularly re-stocked with fines extracted from broadcasters who fail to understand or ask why a particular promotion may be prohibited. What is consideration and what is chance? Those questions

can trip up even the well-intentioned. Even when understood, the federal laws and FCC rules now prohibit the advertisement or promotion of games that are innocuous and often beneficial to society

ten beneficial to society.

Church bingo cannot be advertised on the air, even when legal under state law. A ticket stub give-away at the local baseball game may not find its way into copy urging baseball fans to attend the next home game. Yet a cleverly designed promotion, with all the elements of a lottery, can be broadcast if the person or group that receives the money is different from the person or group that runs the lottery. Talk shows about gambling in general or how to play a complicated game, such as craps, are legal. If the same program talks about a specific lottery run by a specific hotel or church, the line has been crossed between what is legal and what is illegal. Those are just some of the examples of the illogical rules that pretend to control legal activity by prohibiting talk about it. All illustrate the need for reform.

Contemporary Supreme Court decisions limiting restrictions on commercial speech, e.g., advertisements for birth control, abortions and legal services, offer the prospect of a successful judicial challenge to the federal laws. Congressional repeal is a surer, quicker and less costly approach and while the Laxalt bill is not perfect, it is a positive step. One change that should be made in the bill is to allow advertising of any lottery or game of chance that is legal under state law, even if it is not "licensed and regulated by state authority," as are the Nevada and New Jersey casinos. Advertisements or public service announcements for less pervasively regulated but no less legal activities, like church bingo, would then be permissible.

Federal relaxation of the ban on advertising of lotteries will shift the arena of potential regulation to the state and local communities which are most closely affected by such advertising. The states will also have the authority to address the manner in which merchandising of commercial products and services could be accompanied by the use of games of chance to entice consumers. Local concerns, economic and political, as well as notions of public morality, may result in a patchwork of laws that may create other issues. Maintaining standards of truthful advertising and assuring that criminal elements do not infiltrate legalized gambling operations will continue to require government oversight. Nonetheless, state control is far preferable to the current situation where an anachronistic federal statute effectively bars the full use of modern communications to inform the public about legal activities.

Here then is an issue that broadcasters can decide to act upon during their recreation time in Las Vegas at the blackjack table, as well as during business hours at convention events.



1050 Techwood Drive, N.W., Atlanta, GA 30318 (404) 827-2200

#### Datebooks

#### This week

April 29-May 1—"Communication in the 80's: Major Broadcasting and Telecommunications Issues," conference sponsored by *University of Calgary, Communication Studies*, Calgary, Alberta.

April 29-May 2—National Association of Broadcasters annual convention. Las Vegas Convention Center, Las Vegas.

**April 30** Maximum Service Telecasters engineering breakfast, during National Association of Broadcasters' convention. Las Vegas Hilton hotel, Las Vegas.

**April 30**—Cable course offered by *Women in Cable, Rocky Mountain chapter*. University of Denver, Denver. Information: (303) 321-7550.

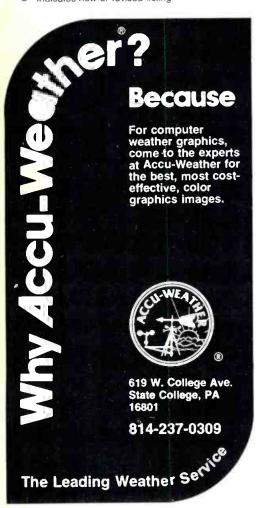
April 30—National Academy of Television Arts and Sciences, New York chapter, drop-in dinner. Theme: "Varied Views on Voice-Overs." Copacabana, New York.

April 30-May 1—"Minority Television Programing Exhibition," sponsored by National Association of Broadcasters, minority and special services and television departments, during NAB's annual convention. Las Vegas Convention Center. Las Vegas. Information: Dwight Ellis, NAB, (202) 293-3534.

May 1—Broadcast Pioneers annual breakfast. Las Vegas Hilton, Las Vegas.

May 2—Women in Cable, New York chapter, "Basics of Cable TV" course. Topic for session one: overview of cable TV and background. Viacom conference center, New York. Information: (212) 484-6778.

Indicates new or revised listing



May 2—National Academy of Television Arts and Sciences, New York chapter, drop-in luncheon. Speaker: Pat Robertson, president, Christian Broadcasting Network and CBN Cable Network. Copacabana, New York.

May 3—American Women in Radio and Television, New York chapter, fifth annual Pinnacle Awards. Presenter: actress Helen Hayes. Guggenheim Museum, New York. Information: Ellen Bedell, (212) 221-8181.

May 3—Women in Cable. Chicago chapter, monthly meeting, "Shape of TV to Come: Programing Trends of the 80's." Como Inn, Chicago. Information: (312) 399-2278

■ May 3—Northern California Broadcasters Association luncheon meeting. Trader Vic's, San Francisco.

May 4-6—Illinois News Broadcasters Association spring convention. Holiday Inn Mart Plaza, Chicago.

May 5—Radio-Television News Directors Association region six meeting with Society of Professional Journalists, Sigma Delta Chi. Grenada Royale/Alameda Plaza, Kansas City, Mo. Information: (202) 737-8657.

May 5—Radio-Television News Directors Association region 14 meeting with UPI. Colonial Square, Atlanta. Information: (202) 737-8657.

May 5-9 Eurocast '84, cable and satellite television exhibition. Swiss Industries Fair, Basel, Switzerland. Information: Michael Hyams, Cable & Satellite Television Exhibitions Ltd., 100 Gloucester Place, London, W1H 3DA; telephone: 01-487-4397.

#### Also in May

May 7—Fund-raiser for Big Sisters of Washington, roasting FCC Commissioner Mimi Weyforth Dawson. Roasters: FCC Chairman Mark Fowler, former FCC Commissioner Richard Wiley, former FCC Mass Media Bureau Chief Larry Harris, and Jerri Crisman, president, American Women in Radio and Television. Washington Marriott. Information: Karen Kershner, (202) 328-1847.

May 7—Cable course offered by Women in Cable, Rocky Mountain chapter. University of Denver, Den-

#### Major # Meetings

April 29-May 2—National Association of Broadcasters annual Convention. Las Vegas Convention Center, Las Vegas. Future conventions: Las Vegas, April 14-17, 1985; Dallas, April 13-16, 1986; Dallas, April 12-15, 1987, and Las Vegas, April 10-13, 1988

May 7-9—ABC-TV annual affiliates meeting. Century Plaza, Los Angeles.

**May 13-16—**CBS-TV annual affiliates meeting. Century Plaza, Los Angeles.

May 20-22—NBC-TV annual affiliates meeting. Century Plaza, Los Angeles.

May 20-23—Broadcast Financial Management Association 24th annual conference. Grand Hyatt, New York. Future conferences: May 12-15, 1985, Chicago; May 18-21, 1986, Los Angeles.

May 30-June 2—American Women in Radio and Television annual convention. Palmer House, Chicago. Future conventions: May 7-11, 1985, New York Hilton, New York, and May 27-31, 1986, Loew's Anatole, Dallas.

June 2-6—American Advertising Federation national convention. Fairmont hotel, Denver. Future conventions: June 8-12, 1985, J.W. Marriott, Washington, and June 14-18, 1986, Hyatt Regency Chicago, Chicago.

June 3-6—National Cable Television Association annual convention, including National Cable Programing Conference. Las Vegas Convention Center, Las Vegas. Future conventions: June 2-5, 1985, Las Vegas; March 16-19, 1986, Dallas, and May 17-20, 1987, Las Vegas.

June 10-15—Broadcasters Promotion Association/Broadcast Designers Association annual seminar. Caesars Palace, Las Vegas. Future conventions: June 5-9, 1985, Hyatt Regency, Chicago; June 10-15, 1986, Loew's Anatole, Dallas; June 17-20, 1987, Peachtree Plaza, Allanta; June 22-25, 1988, Bonaventure, Los Angeles; June 22-25, 1989, Renaissance Center, Detroit.

Aug. 12-15—Cable Television Administration and Marketing Society 10th annual conference. Waldorf-Astoria, New York.

Sept. 6-8—Southern Cable Television Association Eastern show. Georgia World Congress Center, Atlanta. Future show: Aug. 25-27, 1985, Georgia World Congress Center.

Sept. 16-19—"The Radio Convention," combined conventions of National Radio Broadcasters Association and National Association of Broadcasters Radio Programing Conference. Westin Bonaventure hotel, Los Angeles

Sept. 21-25—10th International Broadcasting Convention. Metropole Conference and Exhibition Center, Brighton, England.

Oct. 28-Nov. 2—Society of Motion Picture and Television Engineers 126th technical conference and equipment exhibit. New York Hilton.

Oct. 30-Nov. 1—Atlantic Cable Show, Atlantic City Convention Center, Atlantic City, N.J. Information: (609) 848-1000.

Nov. 7-9—Television Bureau of Advertising 30th annual meeting, Hyatt Regency, Chicago. Future meetings: Nov. 11-13, 1985, Hyatt Regency, Dallas; Nov. 17-19, 1986, Century Plaza, Los Angeles, and Nov. 18-20, 1987, Washington Hilton, Washington.

Nov. 11-14—Association of National Advertisers annual meeting. Camelback Inn, Scottsdale, Ariz.

Nov. 17-20—AMIP '84, American Market for International Programs, second annual program marketplace, organized by Perard Associates with MIDEM and National Video Clearinghouse. Fontainebleau Hilton, Miami Beach.

**Dec. 5-7**—Western Cable Show, sponsored by *California Cable Television Association*. Anaheim Convention Center, Anaheim, Calif. Information: (415) 428-2225.

**Dec. 5-7**—Radio-Television News Directors Association international conference. San Antonio Convention Center, San Antonio, Tex.

Jan. 5-8, 1985—Association of Independent Television Stations (INTV) annual convention. Century Plaza hotel, Los Angeles.

Jan. 10-15, 1985—NATPE International annual convention. Moscone Center, San Francisco. Future conventions: Jan. 17-22, 1986, New Orleans. Convention Center, and Jan. 24-27, 1987, New Orleans.

Jan. 30-Feb. 1,1985—25th annual Texas Cable Show, sponsored by *Texas Cable TV Association*. San Antonio Convention Center, San Antonio.

**Feb. 10-13, 1985**—*National Religious Broadcasters* 42nd annual convention. Sheraton Washington. Washington.

Feb. 15-16, 1985—Society of Motion Picture and Television Engineers 19th annual television conference. St. Francis hotel, San Francisco.

March 7-9, 1985—16th annual Country Radio Seminar, sponsored by *Country Radio Broadcasters Inc.* Opryland hotel, Nashville.

May 15-18, 1985—American Association of Advertising Agencies annual meeting. Greenbrier, White Sulphur Springs, W. Va.



ver. Information: (303) 321-7550.

May 7—National Academy of Television Arts and Sciences, New York chapter, drop-in dinner. Theme: "The Talent of Agents." Copacabana, New York.

May 7-9—Classical Music Broadcasters Association convention. Warwick hotel, New York. Information: Tim Davidson, (206) 343-3981.

May 7-9-ABC-TV annual affiliates meeting. Century Plaza, Los Angeles.

May 7-26—Los Angeles Television Festival, compilation of past Museum of Broadcasting exhibitions, presented by Museum in cooperation with Academy of Television Arts and Sciences Foundation. ABC Entertainment Center, Los Angeles.

May 8—Hollywood Radio and Television Society newsmaker luncheon, "Covering the Summer Olympics," with ABC News and Sports President Roone Arledge. Beverly Hilton, Los Angeles.

May 9-Second annual "Excellence in Media" awards

luncheon, sponsored by Institute of New Cinema Artists. Helmsley Palace, New York.

-Women in Cable, New York chapter, "Basics of Cable TV" course, session two. Topic: programing, basic, pay and local origination. Viacom conference center, New York. Information: (212) 484-6778.

May 9-National Conference of Black Lawyers communications task force. Speaker: Senator Barry Goldwater (R-Ariz.). chairman of Senate Communications Subcommittee. Washington Marriott. Washington.

May 9—National Academy of Television Arts and Sciences, New York chapter, drop-in luncheon. Speaker: John Lazarus, vice president, sports marketing and sales, ABC-TV. "The Marketing of the 1984 Olympics." Copacabana, New York.

May 10-Armed Forces Communications and Electronics Association luncheon. Speaker: FCC Commissioner Mimi Weyforth Dawson, Shoreham hotel, Wash-

May 11-13—Pennsylvania AP Broadcasters annual meeting and awards presentation. Treadway Resort, Lancaster, Pa.

May 12—Radio-Television News Directors Association region 12 meeting with Pennsylvania AP Broadcasters. Lancaster, Pa. Information: (202) 737-8657.

May 13-16—CBS-TV annual affiliates meeting. Century Plaza, Los Angeles.

May 14—Cable course offered by Women in Cable, Rocky Mountain chapter. University of Denver, Denver, Information: (303) 321-7550.

May 14-17—International Conference on Communications, sponsored by Institute of Electrical and Electronics Engineers Communications Society. RAI Conference Center, Amsterdam. Information: (31) 40-742131/742236.

May 15—Deadline for entries in National Federation of Community Broadcasters "Community Radio Program Awards." Information: NFCB, 1314 14th Street, N.W., Washington, 20005; (202) 797-8911

May 15—Women in Communications, New York chapter, annual business meeting and spring luncheon. Tavern on the Green, New York.

May 15—"Minority Ownership, Training and Recruiting," conference sponsored by Northeastern University, journalism department. Ell student center, Boston. Information: Bill Kirtz, (617) 437-3236.

May 15—Southern California Cable Association monthly meeting. Speaker: Larry Wangberg, president, Times Mirror Cable, Irvine, Calif. Los Angeles Airport Hilton, Los Angeles. Information: (213) 684-7024.

May 15-17—Maryland/Delaware Cable Television Association annual spring meeting. Belvedere, Baltimore. Information: Barbara Martin, (301) 332-4098.

May 16-New Jersey Broadcasters Association annual spring conference. Rutgers, State University of New Jersey, New Brunswick, N.J.

May 16-Women in Cable, New York chapter, "Basics of Cable TV" course, session three. Topic: advertising and research. Viacom conference center, New York. Information: (212) 484-6778.

■ May 16—Women in Cable, Washington chapter, meeting. Topic: DBS, SMATV and MDS. Speakers: Ron Castell, Satellite Television Corp., Daniel Bean, Skyvision Corp., and Steve Wechsler, Marquee Television Network. National Cable Television Association headquarters, Washington.

May 16-National Association of Broadcasters metro market committee meeting. NAB headquarters, Washington.

May 16-19-Public Telecommunications Financial Management Association annual conference. Pointe at Squaw Peak, Phoenix. Information: (803) 799-5517

May 16-19-American Association of Advertising Agencies Southern region annual meeting. Mandalay Four Seasons, Dallas.

May 16-20—Fourth International Conference on Television Drama, sponsored by Michigan State University. MSU campus, East Lansing, Mich. Information: (517) 355-4714

May 17—World Telecommunications Day, sponsored by International Telecommunication Union. Information: ITU, Place des Nations, CH-1211, Geneva, 20; telephone: (022) 99-5111.

May 17-National Academy of Television Arts and

#### Stay 7 Tuned

A professional's guide to the intermedia week (April 30-May 6)

Network television ☐ PBS (check local times): American Playhouse—"Concealed Enemies," part I (three-part mini-series), Monday 9-11 p.m. [continued following Tuesday and Wednesday]; American Playhouse—"Hughie," Tuesday 9-10 p.m. ABC: The Last Days of Pompeii, part I (three-part mini-series), Sunday 8-11 p.m. [to be continued following Monday and Tuesday]. NBC: V: The Final Battle, part I (three-part mini-series), Sunday 8-10 p.m. [to be continued following Monday and Tuesday].

Syndication ☐ Turner Program Services: Cousteau/Amazon part II—"The New El Dorado: Invaders and Exiles" (three-part special), Monday 8-10 p.m. [third part to be broadcast June 12].

Cable ☐ Arts & Entertainment: Emlyn Williams as Charles Dickens, Tuesday 9-10:30 p.m.; Bloodlines: 1915 (seven-part dramatic series), Tuesday through following Tuesday 8-9 p.m. Bravo: Wagner Tribute, Tuesday 10-11 p.m.; Dance Fest: An Evening With the Royal Ballet, Saturday 10-11:30 p.m.

Play it again (rebroadcasts) ☐ Arts & Entertainment: Through A Glass Darkly, Saturday 8-9:30 p.m. Cinemax: "Tootsie." Thursday 8-10 p.m. NBC: Adam, Monday 9-11 p.m.

Museum of Broadcasting □ (1 East 53d Street, New York) Lucille Ball: First Lady of Comedy, 90 minutes of programing per day, through Sept. 13; Rod Serling: Dimensions of the Imagination, 60 hours of programing, through May 3.

\* indicates premiere episode

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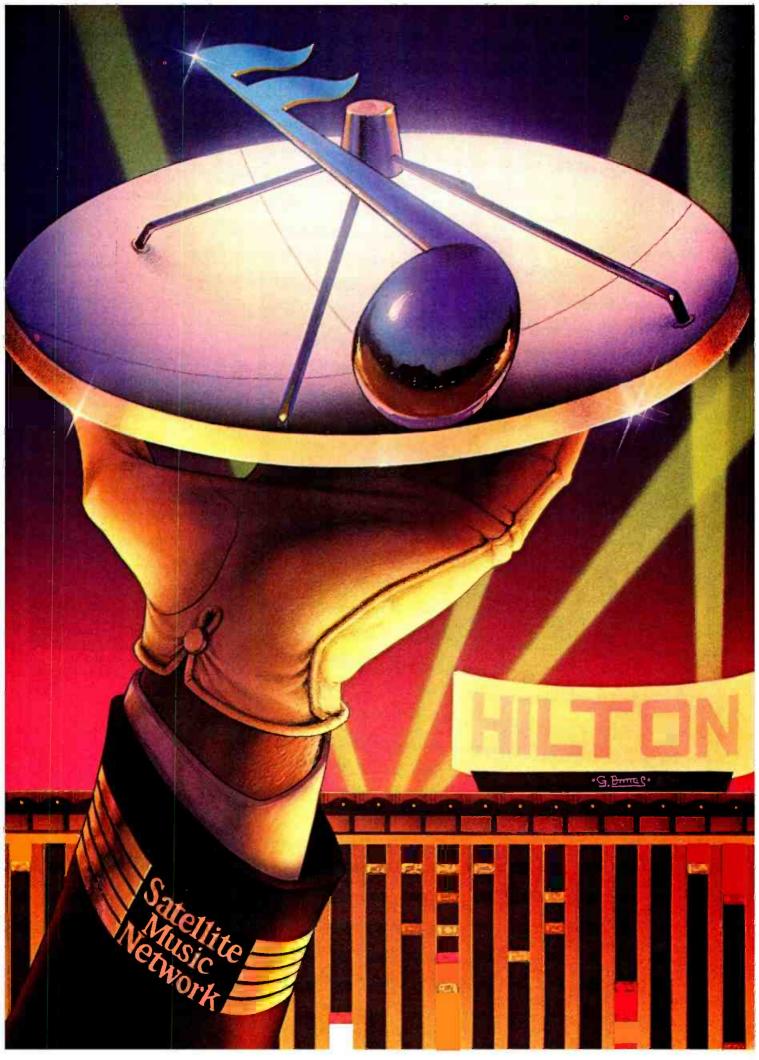
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#### en-Mil

#### Poli talk

EDITOR: I have read your editorial in the April 9 issue, "Stand-off," which deals with the use of exit polls, etc. The industry ought to get behind the uniform polling hour bill that has been introduced for the past several Congresses by Representative Mario Biaggi (D-N, Y.).

The essence of his idea is that elections should take place on a Sunday and that the polls should be open from noon to 8 p.m., Eastern time, across the nation.

Exit polls are a nonissue. After all, the First Amendment takes care of that question,

so it's not worth discussing.
Yesterday morning NBC News reported that the chairman of the Democratic party in Missouri had predicted that Walter Mondale would carry the Democratic caucuses quite handily. Now there's an authoritative voting prediction before the polls have opened, much less before they've closed.—William L. Putnam, chairman, Springfield Television, Springfield, Mass.

#### What's at issue?

EDITOR: I was disappointed by the FCC's recent decision not to launch a rulemaking to establish a class of low-power FM stations (BROADCASTING, April 16), but at least the basis attributed to Mr. McKinney (that many of them would be knocked off the air by the new full-power FM stations that Docket 80-90 would establish, and so a petition for lowpower should wait until the dust had settled from 80-90) was defensible. I was surprised, however, by the frankness of the quote from Mr. Fritts, spokesman for the National Association of Broadcasters, erstwhile champion of First Amendment freedom, in endorsing the FCC's ruling, that the NAB "expects (clearly, from the context, meaning "hopes" and not simply "predicts") that "extensive local origination of programing [on existing translator transmitters] will not be tolerated.

The NAB cannot claim that additional electronic interference would result from changing the content of the programing of an existing translator. The only kind of interference that could result would be in the form of additional competition for audiences and advertisers. There is no dispute that any new competitor should, by becoming a local broadcaster, be subject to the same rules as other broadcasters, so arguments about "level playing fields" should be directed to making sure that this is the case.

If the NAB truly believes in the virtues of free competition, and not simply in the protection of its current members against any accountability to the public, whether that accountability is brought about by government regulation or through the entry of new competitors, it will disavow Mr. Fritts's statement and make it clear that the NAB will not oppose the entry of new competitors to the field of communication.—Philip R. Olenick, attorney, Boston.

#### Search for substance

EDITOR: It is interesting to note that the National Cable Television Association was about half right in its study of cable franchise fees and city overcharges, as borne out by the FCC (BROADCASTING, March 12). This appears to jibe with the character of much of the information the NCTA has provided to Congress, the press, and the public in its unbridled push for legislation favorable to the industry. Half-truths, questionable statistics, non-sequiturs, and attacks on the character of those who would disagree seem the order of the day.

In this light, your March 12 editorial attack on Peggy Charren, Tim Wirth and their efforts in support of quality television for children is just a bit confusing. "Careful " as you put it, is practiced universally in Washington to present an "image" so as to "mold" opinion. That NCTA and Action for Children's Television should do so should hardly be surprising. At least Wirth and Charren are doing so for the benefit of children whose young minds are not yet able to discern the intentions of advertisers in a commercial medium.

But why an attack on the methods of Charren and Wirth without one on those of Wheeler and company? Indeed, that such methods should be used by a communications industry should be at least equally deplorable to a publication dedicated to the ideals of the First Amendment.

Perhaps we would all be better served if all such efforts were concerned more with substance and facts, that with image and PR.

But I suppose you could say it's all just a matter of perception.—John A. Figliozzi, Clifton Park, N.Y.

#### Oversimplification

EDITOR: Your "Monday Memo" of April 23, "Psychology for General Managers" by Jerry Johnson of Voice Crafts, makes some salient points about delegation of authority, the supervision of creative, technical and artistic people, and differences in learning and problemsolving styles.

However, few program directors receive training in how to effectively direct, control and motivate their subordinates. Often, the assumption is made that their own artistic temperaments will enable them to provide leadership for others of like nature. A core of management skill is still a fundamental requirement for fulfilling the mandate of getting things done through others.

Second, the learning styles postulated in D.A. Kolb's book cannot and should not be regarded as mutually exclusive, as Mr. Johnson's reference suggests. To label a class of specialists as "accommodators" or as "convergers" is to overlook the tremendous overlap in personality dynamics, and to suggest to managers that their people can be pigeonholed into categories and dealt with unidi-

mensionally.

Perhaps space limitations did not afford Mr. Johnson the opportunity to discuss the points raised in this letter more fully. Nevertheless, as a broadcasting consultant for more than a dozen years, specializing in the assessment of managerial and sales candidates. I tend to wince at the simplistic views that the article implies, and am especially distressed by the use of labels to classify people. Most individuals are a great deal more complex and need to be treated as multidimensional.-Jay S. Ferkin, senior partner, Jay S. Ferkin Associates, Great Neck, N.Y.

#### Degrees of difference

EDITOR: Someone seems to have made an egregious error in your April 2 story, "Intelsat opens new bird to Comsat competitors.' There are several references to the placement of Intelsat V at 307 degrees east.

That is geographically impossible. No point on Earth can be farther than 180 degrees east/west from the 0° meridian at Greenwich, England; the 180° meridian is commonly known as the International Date Line.

The easternmost point in Brazil (over which the story indicates Intelsat V will be placed)—at Recife—is approximately 35° west longitude and the western-most point is approximately 75° west; the longitude will have to be somewhere between those two figures.—Richard H. Gleick, RHG Communications, Maitland, Fla.

Editor's note: Intelsat has always referred to the geographical location of satellites in terms of East to avoid the ambiguity of saying east when west is intended, or vice versa. The practice dates from the days of the International Communications Satellite Committee, in the mid-1960's, before the definitive agreements creating Intelsat were signed.

#### Credit where due

EDITOR: BROADCASTING's April 23 Special Report—an advance synopsis of NAB's convention—states that I "created" the multimedia opening show. In fact, we retained TM Communications Inc. of Dallas and conveyed to them our objectives and thoughts. It was their creative product that the industry witnessed yesterday. - Shaun Sheehan, senior vice president, public affairs, National Association of Broadcasters, Washington.

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## Broadcasting 4 Apr 30

TOP OF THE WEEK

#### Agreement to disagree on deregulation

Tauke and Tauzin walk away from negotiating table after concluding deal with Wirth is impossible; he, on other hand, accuses them of conduct verging on bad faith

The death knell for broadcasting deregulation legislation sounded last week. Talks among members of the House Telecommunications Subcommittee on legislation collapsed after Tom Tauke (R-lowa) and Billy Tauzin (D-La.), NAB's two chief congressional allies, walked away from the table. The breakdown between members is being viewed by some as the end of a year-long effort to achieve a broadcasting deregulation bill in the House this session.

In a statement released late last week, Tauke and Tauzin said they had "terminated negotiations on a broadcast deregulation bill with Subcommittee Chairman Tim Wirth (D-Colo.) after concluding that an agreement with Wirth on a consensus bill is not possible this session of Congress."

Wirth, on the other hand, says he wants to continue negotiating. At a press briefing last Friday, members of Wirth's staff explained where the chairman stood. "Wirth wants to work this out," said David Aylward, the sub-committee's staff director and chief counsel. "We're prepared to do everything we can to get a bill. If there's going to be broadcast legislation, there's going to have to be a compromise," he said. Aylward maintained that "walking away from the table only insures there will be no bill."

Most of Aylward's criticism was leveled at the National Association of Broadcasters. It was the NAB, Aylward felt, that impeded the process. He said it was clear that NAB put "enormous pressure on the process and has been able to explode it."

He accused the association of "wanting it all," and said the association was like a young child with its hand in the cookie jar, who "wants all the cookies."

Furthermore, he maintained that NAB had become the "critical player in all this." Aylward said what had really happened was that "NAB decided they didn't want a bill."

"I am not suprised," said NAB President Eddie Fritts when he learned that the talks collapsed. Fritts was in Las Vegas when the Tauke and Tauzin statement went out. He denied the proposal was NAB's. The NAB bill, he said, is H.R. 2382, which has a clear majority of the House as co-sponsors. "We don't dictate to them what they do," Fritts said.

Tauke told BROADCASTING that he and



Tauke



Tauzin



Wirth

Tauzin concluded it was "impossible to reach a compromise" after they met with Wirth to offer him a revised version of his draft bill; they were unable to swallow parts of Wirth's proposed bill (BROADCASTING, March 12). They shuttled proposals between themselves addressing such issues as a strengthened petition to deny process and a sunset provision for proposed quantified TV programing standards.

Tauke said their proposal did not include Wirth's children's programing requirement (telecasters would be required to air at least one hour, five days a week, of children's programing). He also said it eliminated the FCC's ability to reregulate radio, another proposal backed by Wirth. Wirth, he explained, wanted to have the prehearing discovery for petitions to deny in the hands of the petitioners. "We have it in the hands of the commission," Tauke said. Wirth and others (including Representative Al Swift [D-Wash.]) back a provision that would authorize the FCC to dismiss frivolous petitions and fine or penalize any petitioner found guilty of harrassment.

Tauke also noted they dropped a provision that would establish rules to insure that a significant preference be granted to minor-

ities in contests for broadcast licenses or construction permits. In addition they removed the section calling for codification of the FCC's existing personal attack and political editorializing rules.

In the area of equal employment opportunity standards, Tauke said, they suggested the standards apply to stations with 10 or more employes rather than five or more, as proposed by Representative Mickey Leland (D-Tex.).

"We did not have a commitment or support from the NAB, but we felt we could sell the package," Tauke said. He explained that he and Tauzin told Wirth to go ahead and move a bill acceptable to him through the subcommmittee. If Wirth fails to move a bill, Tauke said, they will ask Energy and Commerce Committee Chairman John Dingell (D-Mich.) to bring a measure before the full committee.

The rift between Wirth and Tauke and Tauzin may have begun to widen before their meeting. In a memorandum dated last Wednesday (April 25) Wirth outlined his concerns about their proposal, and was critical of Tauke and Tauzin's latest move. "To be blunt, it has become very apparent to me that after months of discussions you now are attempting to substantially alter the underlying premise of all our negotiations while also going back on a series of specific understandings and agreements we had reached," Wirth wrote.

He accused them of taking a "giant step backward from the entire package after all these concessions were made," and said it "comes close to evidencing bad faith."

Wirth claimed their proposal "reneges on a whole series of compromises that had been made and understandings that had been reached." Furthermore, the subcommittee chairman questioned their motives. He said they seemed interested in reaching agreement on a package that NAB will buy. "I do not think it reflects well on the integrity of this process to enable a trade association to dictate whether we as members of Congress are able to develop and agree to a fair compromise. I strongly suggest that a little more statesmanship is in order," Wirth wrote.

At this point it is unclear if Tauke and Tauzin will convince Dingell to bring the matter up in full commmittee. Their chances appear slim unless they enlist Swift's support. Swift, an aide said, has not fully decided where he stands on the Tauke-Tauzin proposal. "It sounds like it might be acceptable, but there are a number of ambiguities," the aide said.

#### NAB's goal: Making most of Reagan presidency

Fritts says association must take maximum advantage of four-year window to capture deregulatory results; failure to win legislation this year is credited as 'useful exercise'

The paramount mission of the National Association of Broadcasters in the first half of this decade has been and remains to take advantage of a "four-year window" of opportunity provided by the election of Ronald Reagan and his appointment of a deregulatory-minded FCC. It is a task NAB has undertaken with zeal. The increase in competition, in the form of new media and greater opportunities among existing media, that has accompanied the new freedom doesn't faze Eddie Fritts, the NAB's president.

On the eve of NAB's 62d convention, which began Sunday (April 29) in Las Vegas, Fritts sat down with BROADCASTING editors to discussed the state of the industry and the association. He expressed unyielding faith in broadcasting and its ability to adapt to a constantly changing environment.

"If one looks at the broadcast industry four years ago, with all the government regulations and the paper work, everyone recognized that with the new administration, there was a four-year window of opportunity to relieve broadcasters of much of the burdensome bureaucracy."

Since then, NAB has witnessed the fruits of those regulatory changes. But competition, says Fritts, "is a way of life" for broadcasters. "They've lived with it, recognized it and prospered under it for years," he said. Moreover, said the NAB chief, there will

Moreover, said the NAB chief, there will be still further change which means broadcasters must work "harder and be more creative." However, he added, that is something "they have always done in the past."

Nonetheless, Fritts emphasized that the NAB must insure that the new regulations created for the new technologies do not put broadcasters at a competitive disadvantage. Unlike the broadcasting industry, the NAB chief stressed, there are no public interest responsibilities for low-power TV, DBS or for any of the other new technologies.

Despite the challenges posed by the new technologies, Fritts believes the future of broadcasting is on firm ground. The key to a strong industry, he says, lies within those challenges.

"Anybody can develop a national system, but what makes the difference is a national system that integrates a local system. Right now, none of the new technologies can do that. Whereas broadcasters are uniquely positioned to do just that," says Fritts.

Some industry officials have voiced concern about an overzealous FCC. While Fritts admitted that the NAB had some concerns about the commission's deregulatory push, overall it was pleased by the deregulatory trend. He explained that NAB fears that under the guise of deregulation some of the rules that have provided "sanity in the marketplace" are being deleted or will be de-

leted. "We have great concerns that the laws of physics do not change. Interference is still interference," he argued. "Acceptable interference is one thing and unacceptable interference is totally something else. We think the commission needs to take a go-slow approach in many areas. In the technical area especially, we would like to make sure that thorough studies are completed before the commission decides the direction that's needed."

Does Fritts, like FCC Chairman Mark Fowler, call himself a "foe" of the public trustee concept of commercial broadcasting? On the contrary, Fritts believes it is a concept that has served the industry well.

Broadcasters have lived under the public trustee concept and built the "greatest system of communciation in the world under that concept," he added. "To propose to do away with that would conceptually change



broadcasters' role as we view the future. It would take an awful lot of careful and thoughtful consideration as to what would replace it and how broadcasters' obligations would be imposed upon them in the future," he said. But it is an issue that draws fire from all sides, he admits.

Overall, he feels NAB is strong and healthy, and he insists that it is making fast progress toward becoming a far more effective trade association. "In the future this foundation will pay off handsomely," Fritts predicted.

In government relations, 1983 was a rocky year for the NAB. The broadcasters' attempts to achieve regulatory relief from the 98th Congress appear all but dead (see story, page 35). Congressional criticism accompanied much of the NAB's deregulatory campaign on Capitol Hill. The association's relationship with House Telecommunications Subcommittee Chairman Tim Wirth (D-

Colo.) has been deteriorating. Even one of NAB's staunchest Senate allies, Bob Packwood (R-Ore.), at last year's convention made a stinging attack on the broadcasters' abilities ("You can't lobby your way out of a paper bag in the House"). Moreover, the association's loss of three of its senior vice presidents and its chief lobbyist didn't help matters (BROADCASTING, Jan. 16).

Despite the setbacks (even Fritts describes 1983 as a "traumatic year" for the association) the NAB president feels the push for deregulation legislation in the House was not a wasted effort. Rather, he calls it a "useful exercise" and the "first test."

Moreover, Fritts noted that as an exercise "to have garnered 235 co-sponsors in the House of Representatives says that our lobbying effort is gaining strength." (Fritts was referring to the number of co-sponsors for H.R. 2382, introduced by Representatives Tom Tauke [R-Iowa] and Billy Tauzin [D-La.]—the industry's major deregulation bill.)

Furthermore, he added, "this is the first time this administration had tested our grassroots system. The response was overwhelmingly favorable, but it needs to be doubled."

Fritts explained that NAB launched the drive for deregulation legislation last year only after its congressional allies, Tauke and Tauzin, felt it was right to move on it. "We more or less followed their lead. And we think as we begin to build we'll find we can be far more effective in the future," Fritts said.

Fritts doesn't see much hope for legislation passing in this Congress. However, he maintained that what has been accomplished gives NAB a base from which to work. "It has given us a baseline to test our system to determine where our strengths and weaknesses are. We've done that and we've been able to isolate some weaknesses."

When this new Congress went into session, Fritts said, the consensus was that there would be little if any legislation. NAB was disappointed that a deregulation bill did not sail through, "but we are not discouraged," he said.

Moreover, he added, there is still an opportunity to look at other methods. (Sources on Capitol Hill say the NAB has already switched its legislative strategy and is pushing for a "radio-only" bill.)

Fritts acknowledges that NAB has been toying with the idea and is discussing the possibilities with the National Radio Broadcasters Association. "A number of months ago we attempted informally to move a radio-only bill there was no sentiment in Congress to move one. There now is a possibility and we are having ongoing discussions with NRBA to move a radio-only bill." (There is a chance that NAB's convention will serve as a backdrop for an announced drive to pass such a radio-only bill.)

It seems unclear, however, whether the broadcasters will start their initiative in the Senate or House. There are a number of scenarios that might develop. NAB might approach Tauke and Tauzin, asking them to lead the charge, or the association may turn to Packwood.

In the meantime, NAB is pinning its hopes on the FCC. "Our mission," Fritts says, "is to position the industry to take advantage of the best available options. We feel that we've done that. We found out what was doable in the Congress and pretty much what was not doable. As we look now at the FCC, it is apparent they will likely be moving on television deregulation. The deregulation portion of H.R. 2382 was not a major reshaping or restructuring of the industry. It clearly just released broadcasters from onerous paperwork."

NAB, he says, did not go in with an omni-

bus bill, but with a narrowly defined bill. "We ended up in discussions in a number of arenas that go far beyond the intentions of H.R. 2382. I think we've been willing to sit down and negotiate, but there was not a lot in the bill for us to negotiate with. There was not a lot of financial gain or reward for broadcasters in this particular piece of legislation."

Fritts reiterated that the experience had been a "good test and a very useful exercise."

Fritts resists suggestions that the broadcasting industry has lost rather than gained ground in its relationships with the Congress. "We don't feel that we've lost ground. On the contrary, we feel like we've gained ground and a considerable amount of it." Despite the strained relationship with Wirth, Fritts maintains NAB has grown much closer to Energy and Commerce Committee Chairman John Dingell (D-Mich.) and to a substantially large number of other congressmen.

"While Tim Wirth was able to effectively block an initiative for broadcasting in this Congress, this doesn't mean we're not gaining ground. We're gaining a lot of ground as evidenced by securing 235 co-sponsors; it shows that broadcasters across the country are launching a massive grass-roots effort at the entire Congress. And we think that even though the bill did not emerge from this Congress, this is not the last Congress."

#### Hear all about it

Ask Tom Keller what the hottest topic in television technology will be at this week's National Association of Broadcasters convention and he'll answer without hesitation: "Multichannel television sound.... A lot of broadcast engineers will be trying to find out what they have to do to put MTS on the air."

The FCC gave television stations the green light to broadcast MTS or, more specific, stereophonic sound and/or a discrete audio service such as a foreign-language soundtrack. At the same time, the FCC effectively established an MTS national standard by protecting the industry-recommended Zenith/dbx MTS transmission and noise-reduction system from interference, and thus helped insure a quick rollout of the service.

As the NAB's technical expert and as chairman of the industry group that recommended the Zenith/dbx system, Keller has been fielding plenty of questions over the past few months about MTS and how it should be implemented. He hopes that many of the questions will be answered fully on the exhibit floor and in the panel sessions of the convention. Among the most eager to learn are several broadcasters who are determined to be the first with stereo or a foreign-language service in their markets.

Two technical sessions will address problems in implementing MTS in general and the Zenith/dbx system in particular. Among the sessions' topics: studio and transmitter conversion for MTS, monitoring MTS signals, stereo production and transmission impairments to the MTS signal.

One reason engineers will be following the discussions closely and questioning broadcast equipment salesmen carefully is the potentially high cost of offering the new service. Although most broadcasters will not jump into stereo production, Keller said, most will want to broadcast in stereo the network and syndicated programing that arrives at the station in stereo. The cost will vary depending on the vintage and type of the station's equipment, he said. "Extremely modern" stations may be able to begin regular stereo broadcasts for less than \$10,000, he said, but stations where the MTS signals are incompatible with the present routing switchers, studio-to-transmitter links or transmitter may have to spend hundreds of thousands of dollars to get into the act.

During the convention, it's hoped that the broadcast networks will make known their plans for stereo or other audio services. So far, said Keller, "the networks haven't been saying much."

#### Kastenmeier's copyright gift to the cable industry

Draft bill would effectively cancel Copyright Royalty Tribunal's 1982 rate hikes for distant signals and would legalize home taping; motion picture and broadcasting industries expected to offer opposition

A House Copyright Subcommittee began debate last week on a draft of an omnibus copyright bill, which is expected to ignite further lobbying battles among Hollywood producers, cable operators, broadcasters, video retailers and the consumer electronics industry. The draft was offered by the subcommittee's chairman, Wisconsin Democrat Robert Kastenmeier, and addresses a plethora of issues including cable copyright, home taping, audio and video "first sale" and reform legislation affecting the Copyright Royalty Tribunal.

Kastenmeier said two weeks ago, during a hearing on the video "first sale" doctrine, that he was considering an omnibus bill (BROADCASTING, April 16). It incorporates a number of provisions from pending legislation: H.R. 1027 and H.R. 1029 which modify the "first sale" doctrine; H.R. 175

which would exempt home taping from copyright liability, and H.R. 2902 and H.R. 3419 which would permit cable systems to import additional distant broadcast signals without having to pay significantly higher compulsory license fees for them.

The draft was quickly prepared during the Easter recess, and subcommittee members combed through it during a meeting two days after they returned. The bill was ex-



Kastenmeier

pected to be officially introduced late last week and a markup is tentatively scheduled on Thursday.

About 10 of the subcommittee's 14 members were huddled around a table discussing the draft, in a room filled with lobbyists straining to hear. Even after the two-hour session closed it was unclear where some members stood.

Many members were skeptical about taking an omnibus approach and combining so many pieces of controversial legislation which they feared would ultimately harm the bill's chances of passage.

Chairman Kastenmeier feels it is the best way to go. It is a "balanced" approach, he argued. Kastenmeier wants the legislation to serve as the framework for a compromise among the competing interests.

The draft, like H.R. 1027 and H.R. 1029, introduced by Representatives Don Edwards (D-Calif.) and Carlos Moorhead (R-Calif.), would modify the "first sale" doctrine of copyright law to give Hollywood and the record industry control over the subsequent sale or rentals of recorded audio and visual works. (The control would not extend to

nonprofit rental or lending by a nonprofit library or educational institution.) The present doctrine holds that copyright owners are not entitled to royalities from the re-sale or rental of their works after the first sale is completed.

Representative Barney Frank (D-Mass.) thought the draft's cable provisions should be pulled out. He later withdrew that suggestion after Representative Mike Synar (D-Okla.), author of H.R. 2902, protested. Synar said he favored the omnibus approach, but he wanted a commitment that if the package failed, his cable bill would go forward. Kastenmeier failed to recognize the request.

Like H.R. 2902, Kastenmeier's measure would exempt cable operators from paying higher compulsory licensing fees for carriage of additional distant broadcast signals.

The draft would essentially nullify a 1982 Copyright Royalty Tribunal decision that cable systems must pay 3.75% of their gross revenues each six months for each distant signal they added after the FCC dropped its restrictions on importing signals.

It provides that "the first three distant independent television broadcast signals carried by any cable system which does not carry any local independent television broadcast signals can be retransmitted at the old rates; or the first two distant independent television broadcast signals carried by any cable system which carries any local independent television broadcast signals may be retransmitted at the old rates."

The Kastenmeier proposal also includes suggestions offered by the cable industry during previous hearings on the subject. Cable wants standards imposed on the CRT for setting copyright royalty rates for distant sig-

nals.

The draft would require the tribunal "to consider among other factors, the declining marginal value of additional distant television broadcast signals, the extent to which television broadcast stations compensate copyright owners for the secondary transmission of their signals by cable systems located outside their respective local services areas, and the impact of the rates on cable subscribers both as to the availability and cost of receiving copyrighted materials."

Kastenmeier also incorporated another cable industry proposal concerning the authority of the Register of Copyrights to "prescribe by regulation royalty fees for cable systems which provide tiers."

According to the National Cable Television Association: "Cable systems would be permitted to compute amounts owed for distant signals by assigning fractional values to fractional distant signal equivalents, allocating revenues attributable to distant signals in the case of a system which provides programing to subscribers both inside and outside the local service area, and allocating revenues attributable to those who receive distant signals in the case of distant signals offered on a tier other than basic."

In addition, the draft contains a provision mandating that judicial review of CRT decisions should not be affected by the "placement of the tribunal in the legislative branch."

Kastenmeier's measure, like H.R. 3419, introduced by Representative Sam Hall (D-Tex.), calls for reducing the size of the CRT from five commissioners to three and authorizes the tribunal to hire a general counsel and a chief economist.

The draft would permit many independent stations, now considered distant signals, to be picked up by cable systems without incurring copyright liability. (That proposal has been characterized as a "may-carry rule," which would permit a cable system to carry without copyright liability all broadcast signals within the Arbitron Area of Dominant Influence in which the cable system is located. It was a plan that was espoused during an earlier subcommittee hearing by the Association of Independent Television Stations [INTV].)

A spokesman for the Motion Picture Association of America, who had only begun to analyze the bill, said it was doubtful the association could support a bill that permits home taping and erodes the CRT rate hike decision of 1982.

Further opposition is expected to come from broadcasters. John Summers, National Association of Broadcasters executive vice president, said the NAB stood opposed to any erosion of 3.75% rate hike. "We believe the adjustment is fair and reflects the marketplace," Summers said.

The cable industry, on the other hand, was happy. "We're clearly pleased," said Steve Effros, executive director, Community Antenna Television Association.

NCTA's Executive Vice President James Mooney was equally pleased. He said cable "would not be bought off by putting a Band-Aid on what the CRT did last year. We are more interested in what the CRT will do next year."

Representatives of video retailers and members of the Home Recording Rights Coalition are opposed to repeal of the "first sale" doctrine and are not likely to find the measure palatable.

#### **Trible offers must-carry legislation**

Virginia senator introduces legislation codifying FCC's rules; measure strongly supported by NAB

Legislation that would preserve the FCC's must-carry rules was introduced last week by Senator Paul Trible (R-Va.). Trible, a junior member of the Senate Commerce Committee, co-sponsored the measure with committee member Slade Gorton (R-Wash.). Introduction of the bill sets the scene for a massive Senate lobbying campaign by the National Association of Broadcasters.

The measure (S. 2539) would codify the FCC's rules requiring cable systems within a 35-mile radius or within the station's predicted grade B contour, to carry the signals of local television stations upon the stations' request. The rules also require cable operators to carry distant broadcast station signals that are defined as "significantly viewed."

Trible's initiative was heartily endorsed by the NAB. "We applaud Senator Trible's foresight and look forward to working with him," said NAB President Eddie Fritts. Fritts said the legislation was a "starting point" for the NAB. He pledged that NAB would support the bill vigorously. And, he hinted, that the measure might lead to "a number of offshoots."

The legislation is bound to generate debate this week as the NAB's membership gathers in Las Vegas for its annual convention (April 29-May 2). The convention agenda includes a congressional panel, featuring Trible, among others, devoted to the must-carry topic.

Fritts also praised members of the Virginia Association of Broadcasters and NAB's Must-Carry Task Force for playing a major role in gaining Trible's support.

Trible stated his concerns about preserving the localism principle when he introduced his bill. "If the continued attacks on the 'local carriage' provisions ever prove successful, the results would be detrimental to many of our citizens," Trible said. "Many local television stations outside of the major metropolitan markets would be eliminated by cable systems. As a consequence, the ability of cable subscribers to receive local news, sports, weather, and other programing of unique local interest, would be curtailed," he said.

The measure has been referred to the Commerce Committee where, a Trible aide said, the senator is confident there is support for

the measure.

It seems unlikely, however, that Commerce Committee Chairman Bob Packwood (R-Ore.) shares Trible's sentiment. The NAB has lobbied the committee for support for such legislation before, but to no avail. Although the must-carry issue was briefly addressed in the committee report on the Senate cable deregulation bill (S. 66), Packwood and other members were reluctant to take action on the matter. The rules have been under attack by the cable industry and more specifically by superstation owner Ted Turner. He filed a petition with the FCC asking it to eliminate the rules. The FCC, however, denied the request last month.

Some Capitol Hill sources believe NAB's sudden push for a must-carry bill is a only a means to obtain leverage over the cable industry, now negotiating for a comprehensive cable copyright package in the House (see

story, page 37).

Protection of the must-carry rules has been a long-term NAB goal. In 1981 the cable and broadcasting industries, among others, reached a compromise on cable copyright legislation which incorporated codification of the rules. The bill passed the House, but never made it out of the Senate.







#### Amway takes axe to MBS's top team

Rubenstein, O'Brien, Wallace deposed in intracompany coup; Clements named general manager

The mystery deepened at the Mutual Broadcasting System last week with the sudden departures of Martin Rubenstein, the president and chief executive officer, and two of his principal aides: Tom O'Brien, vice president of news, and Jerry Wallace, senior vice president of corporate services (including finance). Amway Corp., Mutual's owner, gave no explanation for the separations, other than a general statement that they would "streamline" Mutual's operations.

For months, it has been reported that Amway—suffering severe economic problems of its own—was entertaining offers to buy the network. Among the known bidders were Tom Burchill, then representing the RKO Radio Network; Westwood One, and, most recently, a group headed by former Central Intelligence Agency figure Max Hugel and Texas oilman Nelson Bunker Hunt ("Closed Circuit," April 16). Amway's policy has been neither to confirm nor deny negotiations, and generally to deny that the company is up for sale.

(In addition to the network, Amway also owns WHNIAMI New York and is in the process of selling WCFLIAMIChicago, pending FCC approval.)

Sources close to the situation said the three executives were likely forced out as part of a fiscal evaluation to help meet new financial goals set for Mutual by Amway. Just two months ago Mutual laid off 24 employes, and Amway itself dropped some 100 executives from its rolls. Still other reports had it that Amway was seeking to lighten ship to make Mutual more attractive to a potential buyer.

Jack Clements, Mutual's senior vice president, who has been with the company for 11 years, was named to the newly created post of executive vice president and general manager. He has served in a number of broadcast positions at stations in the South, then was news and program director of WCAU(AM) Philadelphia before joining MBS as vice president for programs in 1973. He became vice president for sports in 1976 and then became senior vice president in 1982.

Clements will report to Bill Nicholson.

who has been Amway's coordinator of planning and policy since last November, and who has overseen Mutual for the parent company. Nicholson-a long-time friend of Amway co-founders Richard DeVos and Jay Van Andel-reportedly recommended and carried out the decisions to sever Rubenstein, O'Brien and Wallace.

Rubenstein first joined Mutual as executive vice president after a long career with ABC, culminating as vice president and general manager of ABC News. He was named president of Mutual in 1978. Among the accomplishments for which he is most knownwas development of the first nationwide interconnected satellite network system—a system that Amway noted last week it planned to expand.

O'Brien and Wallace both joined Mutual in 1979. O'Brien formerly was vice president of radio news for ABC while Wallace was assistant director of finance for Satellite Business Systems. In a statement to the Associated Press, O'Brien was quoted as saying "I concluded I could not continue to run the Mutual news department because [Amway] wouldn't give me the money I needed. They expected me to cover the political conventions this summer with mirrors. It just became obvious that the Amway Corp. would not permit us to seriously cover the news.'

#### FCC eases way for expanded subcarrier uses; profits for ITFS

Commission pre-empts states from blocking FM licensees from offering common carrier services; it also allows ITFS licensees to lease time

Giving FM broadcasters who want to use their subcarrier channels to offer common carrier services a break, the FCC last week pre-empted the states from erecting regulatory barriers to such offerings.

In other action, the FCC opened the door

wide for instructional television fixed service licensees to turn profits from their fa-

The commission described its pre-emption action as a "narrow" one, which it said proved necessary because some states appeared bent upon prohibiting FM broadcasters from launching common carrier offerings on their subchannels. The National Association of Broadcasters and others had requested preemption for FM subcarrier paging operations. One petitioner had alleged that 15 states, through various regulatory barriers, were making common carrier entry impossible, or the next thing to it.

According to Jim McKinney, FCC Mass Media Bureau chief, the commission's preemption order will leave the states with the authority to otherwise regulate FM common carrier offerings. For example, under the game plan, FM operators won't have to get state common carrier certifications-a process that can be used to block entry-but the states will still be free to require FM operators to provide notice of their services, and then subject those services to rate or other post-entry regulation.

Commissioner Henry Rivera dissented in part from the decision, questioning whether the FCC had the legal authority to pre-empt state regulation of "strictly local" common carrier services.

In a move that could make established radio common carriers (RCC's) think twice about seeking judicial review of an order that admittedly could lead to the entry of plenty of competition, the FCC also amended its rules to permit the RCC's to lease FM channels within their own markets without first having to demonstrate that they have adequately utilized the frequencies they already have. "The economics of leasing agreements and overall marketplace forces [will] thwart the practice of warehousing spectrum," the FCC said in a news release.

The FCC's ITFS action would appear to be good news for ITFS licensees and commercial operators who want to use ITFS frequencies for multichannel video services. Under the commission's action, ITFS licensees remain the landlords of their microwave frequencies. To qualify to lease those out, licensees will have to provide ITFS services for modest portions of some days. But the rest of their air time can be leased to commercial operators, or retained under ITFS operator control and devoted to whatever commercial or noncommercial venture the ITFS licensee desires.

The FCC action is intended to "clarify" what the commission meant in its original order authorizing multichannel multipoint distribution service by the "significant portion of the main channel capacity" that ITFS licensees were supposed to be devoting to educational purposes before they could lease their "excess capacity" to commercial operators. The FCC is now saying that "significant portion" means that each channel leased, or put to other nonITFS use, has to be devoted to ITFS purposes for at least 15 hours a week between 8 a.m. and 10 p.m., Monday through Friday, but only during the school year (excluding holidays and vacation periods).

## CBS wins two of three taping decisions in Westmoreland libel case

It gets aproval to tape depositions of Rusk and Rostow; loses in bid to record Helms testimony

In three separate court decisions involving CBS's right to videotape the depositions of witnesses testifying on behalf of General William Westmoreland in his celebrated libel suit against the network, CBS prevailed twice and lost once—in the case concerning the deposition of former ambassador and CIA chief Richard Helms. Indications are that the network will seek some kind of reconsideration in the decision it lost, handed down by a federal judge in Washington.

CBS won the right to videotape the depositions of the former Secretary of State Dean Rusk and former national security adviser Walter Rostow in connection with the \$120-million libel suit filed by Westmoreland last year in response to a January 1982 CBS documentary, The Uncounted Enemy: A Vietnam Deception. The Rusk decision was handed down by the U.S. District Court in Athens, Ga., on April 16, and the Helms decision followed on April 20 in Washington district court. Federal Judge Pierre Leval, who is hearing the main case in New York district court ruled in CBS's favor concern-

ing the Rostow deposition last Monday (April 23).

And in another development concerning the Westmoreland case, CBS and the Macmillan Publishing Co. are involved in a war of words over a recently published Macmillan book on the case by Don Kowet, the coauthor of an article on the documentary that appeared in TV Guide. CBS says the Kowet book is as distorted as the original TV Guide article (co-authored by Sally Bedell Smith, now with the New York Times), and Macmillan has responded that CBS has orchestrated an effort to "chill" distribution and critical acceptance of the book.

In the Rusk deposition case, the former secretary of state argued that his testimony would undoubtedly touch on areas "highly sensitive and confidential in nature" and expressed concern that a videotaped version might be used for purposes "other than the preparation and trial of this action," such as a future CBS documentary or film. CBS wants to videotape all the depositions it takes because the New York court where the main trial will be held (assuming CBS's motion for summary dismissal is denied) does not have the power to subpoena witnesses residing outside its jurisdiction. Thus, if a deposed witness decides not to testify at the trial, CBS wants the jury to be able to assess the appearance of such a witness under de-

Ruling in the Rusk case, Athens district court Judge Wilbur D. Owens, said that Rusk's concern about extra-judicial use of a taped deposition by itself was insufficient to bar taping. Ruling that Rusk's deposition could be taped, Owens did, however, impose measures to insure that any tape made would only be used for purposes connected with the trial.

fer two-way Qube service "until such time as demand warrants, substantive programing is developed that fully utilizes technology available and implementation does not place a burden upon nonsubscribers to Qube." The report added, however, if WA is operating "significant" Qube service in other metro systems after Milwaukee has been operating for five years, that system should receive Qube as well.

The report called upon WA to build at the outset an institutional network that the company had proposed deferring, to be activated upon vote of the common council and funded from the city's franchise fee.

The report said WA should be able to charge a break-even fee of \$2.95 for the first level of service and \$11.95 for level two. It said that the tier-one rate should be frozen throughout construction and initial marketing, but the company would be allowed to pass on certain programing costs. Tier two would not be regulated, Rutter said. It also said WA should commit \$10 million over the life of the franchise to public access programing.

WA generally applauded the Rutter report, contending that it supported the company's basic plan, but objected to several recommendations. It said the guarantee of \$10 million for public access over the life of the franchise was not appropriate. Rather, said WA, access funding should be counted against its outstanding obligations.

WA executives downplayed the report's concerns as relatively minor and indicated that the company and the city were close to a compromise. City officials were not quite so sanguine, indicating that WA was pressing its luck by taking exception to some of the Rutter proposals. There is still resentment among city officials over WA's handling of the whole affair—the perception being that Drew Lewis and company essentially are trying to ram the cutbacks down the city's throat, and as loudly and publicly as possible

Richard Berman, WA senior vice president and general counsel, said that was certainly not the company's intention. "Drew felt it was better to lay it out there," he said. And "by no means," he added, is WA's proposal a take it or leave it proposition. He was optimistic last week that the two sides could come to terms

Meanwhile, city cable administrator Rober J. Welch is digesting the Rutter report and WA's reaction with it. He will come up with a final recommendation and a "finding of fact" as to whether, after weighing the evidence, WA adequately made a case that unforeseen circumstances justify the pro-

posed service cutbacks.

The city's common council will probably make its final decision in June. Meanwhile, Welch has prepared a series of resolutions for the council to take up once it has made its decision, including one authorizing the city to renegotiate the franchise with WA. Another spells out a procedure for issuing a new request for proposal. Welch's office has also compiled, at the council's request, the available case studies concerning cable system cooparatives and municipally owned cable systems.

## Milwaukee cable report supports many of Warner's proposals

Study agrees that economic situation justifies some changes in company's franchise proposal; city administrator will now make recommendation and city council decision is expected in June

A report assessing Warner Amex Cable's proposed system design and service cutbacks for the city of Milwaukee has concluded that unforeseen circumstances in the cable industry since 1981, when the WA bid was first prepared, made the proposed system economically unsound, thus supporting WA's main contention. The report also urged that much of the relief sought by the cable MSO should be granted, including allowing WA to string a single residential cable instead of a dual cable (at least to start with), increase rates and reduce its access offerings

However, the report, written by city cable consultant Edward Rutter, didn't endorse all of the Warner proposals. "We believe their proposal does not fully address the cable television service requirements of the com-

munity," Rutter said. "We think some further consideration should be given to access, institutional networks and service tiering," he

The report left open the question of a possible merger of WA's metro operation with 12 surrounding suburban systems owned by Viacom. It asked for more information concerning the proposal and expressed concern over merging with the smaller systems—all equipped with dual residential cable, which WA claims can't be economically justified. However, Rutter said he would support the merger if the Milwaukee system were economically viable on a stand-alone basis and if the venture didn't have a "negative im-

pact" on the Milwaukee system.

Rutter urged the city to allow WA to build a single, 450 mhz, 56-channel capacity system, with expansion required in the future if certain channel utilization and penetration levels are met. Expansion could be accomplished by either upgrading the existing plant to 550 mhz or adding a second cable to

Rutter also endorsed WA's proposal to de-

#### MIP programers bask in Cannes sun

Paramount and Telepictures among firms reporting successful sales in foreign marketplace; home video market boon in some countries

The sun shone in Cannes last week, and it didn't take the sunbathers along the Plage de la Croisette to signal that springtime had indeed arrived. A more certain measure was the thousands of television program executives at this Riviera resort for the 20th Marche International des Programmes de Television (MIP-TV). Over 5,500 registrants passed through Cannes Palais des Festivals to sample scenes from among 22,000 television programs up for sale.

How many of those attending actually purchased programs at MIP remains to be seen. Halfway through the market last week, more than one seller remarked that traffic in the Palais was unusually light. But most blamed that on a coincidence of three factors. The first was the timing of the market, which began immediately following the long Easter holiday and was cited as the reason for the sparse attendance on the market's first day. The second was a slowdown among Air France employes, which delayed people traveling from Paris to Nice. The third—half jokingly—was said to have been the weather, which was described as unseasonably warm and sunny and thus a slight deterrent from immediate sojourn to the exhibit floor to conduct business.

But once MIP-TV got under way, the complaints quickly subsided. Distributors from around the world swelled the Palais. Although U.S. suppliers were a conspicuous minority, much of their product was in demand, and at least two American companies—Paramount and Telepictures—commandeered center stage.

For Paramount, its good fortune lay in The Jesse Owens Story, which was committed by 32 foreign markets in the first two days of selling. Bruce Gordon, president of Paramount Television's international distribution division, predicted that it would be sold to 50 markets by the end of the show. The miniseries will be dubbed into 15 languages, Gordon said, with each hour of dubbing requiring about 10 days. Gordon added the "headache" will be to have The Jesse Owens Story delivered to the foreign markets in time for this summer's Olympic games in Los Angeles, as promised. "After the Olympics," Gordon acknowledged, "it wouldn't have much pull.'

Gordon also said that Return to Eden, for which Paramount holds foreign distribution rights, had been picked up in 22 markets as of last Wednesday.

The second American company making its presence felt on the international scene was Telepictures. Michael J. Solomon, Telepictures' chairman, announced at MIP-TV that both the BBC and the Italian Canale 5 network had bought the 12-hour mini-series, Anodomini, which cost \$34 million and required 20,000 extras to produce. A.D. will be broadcast in the U.S. on NBC-TV during the 1985 February sweeps, but Solomon,

without being too specific, characterized A.D.'s sale to Canale 5 as "a record" purchase by that network. Solomon said that had A.D. not been produced in Tunisia, it would would have cost about a third more.

After Telepictures previewed portions of A.D. at an evening reception in Cannes, "we had potential buyers literally lined up the next morning," Solomon related. Asked later what other countries might be expected to buy A.D. by the close of MIP-TV, Solomon replied: "The reason a deal may not be closed here is that I'm asking for such a high license fee that some thinking has to be done" on the part of the buyer. Contemplative buyers notwithstanding, Solomon said Telepictures was presently in discussion with 40 countries regarding rights for A.D.

Telepictures also used MIP-TV to announce the creation of a new company called TeleLex-VIP Media Scandinavia, which will supply 545 hours of TeleLex programs for cable television systems in Sweden, Finland, Norway and Denmark, beginning Jan. 1, 1985. TVMS is a joint venture comprising TeleLex, a company formed last year by Telepictures and Lexington Broadcast Services to exploit opportunities in international barter progaming, and VIP Scandinavia AS, a publicly traded Oslo, Norway-based media company.

The new three-way joint venture will supply daily three-hour blocks of programing for cable systems in Scandinavia in exchange for six minutes commercial time per hour. The six minutes of advertising will sold to both American and European sponsors. Solomon said the programing will be a mixture of movies, documentaries, family and children's programing and will carry subtitles for each respective country in which the programing is carried. Solomon stressed there would be no adult programing of any kind.

At present, Telepictures executives said there only about 320,000 cable subscribers in Scandinavia, but the number is expected to grow to 2.6 million by 1986. Solomon also indicated that discussions are also taking place to expand the venture to other European cable systems and other delivery vehicles—such as direct broadcast satellites.

Another deal involving an American company and a foreign counterpart was Worldvision's arrangement to distribute programing to two German television companies. Worldvision, which is owned by Taft Broadcasting, sold 100 hours of *Love Boat* to Axel Springer, a German publishing company, which in turn was planning to distribute *Love Boat* by satellite to cable television systems in Germany. The second Worldvision deal involved the sale of 365 hours of *General Hospital* to Beta Films, a German distribution company.

Worldvision officials said that its General Hospital deal marked the first time an American soap opera had been sold to a German television company. The Beta Films deal also included 100 hours of another soap opera—the title of which Worldvision executives were withholding, to be announced at a later date—and covers the first full season of Highway to Heaven, the new Michael Landon production committed by NBC for the 1984-85 season. Worldvision also concluded an arrangement to sell 100 half hours of various animated programs to Beta Films.

Bert Cohen, senior vice president for international sales at Worldvision, said Axel Springer is planning to deliver the programing via the Westbeam satellite ECS-1 to a cable television service provided free to German subscribers. "These deals represent the impact of the new media technologies that are rapidly emerging in Europe," Cohen said

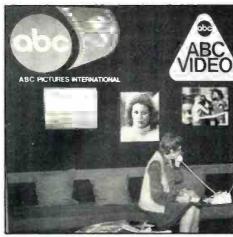
But individual deals aside, MIP-TV was an opportunity for programers to exchange not only their wares but their ideas as well. Dick Coveny, president of Blair Entertainment, was attending his first MIP-TV. Blair Entertainment has been distributing new first run episodes of *Divorce Court*, which it acquired the right to do after buying Rhodes Productions—the original distributor of the



Looking for programing in the Palais



Paramount's Bruce Gordon



ABC Video's June Shelley



Worldvision

show-in 1983.

Coveny said that Divorce Court was one of the Blair shows he was trying to distribute internationally. One problem, he explained. was the limit some governments imposed on foreign-produced programs. "Britain will only allow 14% foreign programs," he lamented, and that will be eaten up by the Dynastys and Dallases." One possible way around that problem, Coveny hopes, lies in licensing the concept of the show rather than selling the entire show. "I don't think divorce differs around the world," he said. "The only difference is what the justice systems are like . . . Blair can sell other countries the stories, or the concept, but let them produce it, not us.

Like many other of the smaller U.S. distributors at MIP-TV, Coveny explained that Blair works through an agent for most of its foreign sales and divides up the world through various representatives. Blair's agent in Europe is London-based Anthony Morris Ltd.

One U.S. distributor who actually put the licensing concept to work is New Yorkbased Fremantle International Inc. Paul Talbot, Fremantle president and owner, said he made an agreement with Mondadore, the Italian publisher which owns the network Rete Quarto, to produce a half-hour strip called Vendetta Familiare, better known to U.S. viewers as Family Feud. Talbot said the deal was worth over \$1 million and represented "the largest overseas contract ever made for a game show." Talbot said that Fremantle will send to Italy "game show producers and experts" to help develop the Italian version of Family Feud. He added that Goodson-Todman, the creator and producer of Family Feud, will also be sending to Italy three or four of its producers as consultants.

Often remarked upon at this year's MIP-TV were the number of buyers from home video markets who turned up in Cannes. Tom Parker, an independent distributor of theatricals to foreign broadcasters, observed that "if it weren't for home video buyers, the independents would be doing very badly here." Parker noted, "I guess I talked to a dozen" home video buyers. According to Parker-and supported by others-the dominant home video buyers at MIP-TV were from Spain, South Africa and the Scandinavian countries. He said that in Spain, home video rights for programs are selling at two or three times the price that broadcasters are paying for the same programs.

Paul Rich, vice president for worldwide sales at Metromedia Producers Corp., made a similar observation. He said there was a "censorship problem" in getting Dynasty on the air in Spain. Instead, he explained, MPC 'turned around to the home video distributors and got at least as much money." The same thing happened in Norway, he reported, where Dynasty had been on the network for two years. "The home video distributors came along and outbid the network for the fourth and fifth year of Dynasty...in the course of it, we got eight times the license fee per episode over that two-year period. If that trend were to continue-and indications are that it will—then broadcasters are going to be competing against the home video market" all over Europe.

Rich also cites South Africa as one of the fastest growing home video markets, principally attributable to an undeveloped broadcasting system.

Although entertainment programing was the staple at MIP-TV, several news services were also present. U.K.-based UPITN and Biznews had exhibit booths as did CBS Broadcast International, the last which was

offering, among other selections, 60 Minutes and old Edward R. Murrow See It Now episodes (all eight years' worth).

Gregg Risch, Washington bureau chief for Group W's The Newsfeed Network and the former White House correspondent for Group W stations, found interest at MIP-TV in launching an international version of the service. Furthermore, Risch said that Group W could be ready to have the new international Newsfeed operating by the fall. At present, Risch reported, Newsfeed is supplying 60 stations in the U.S. with two feeds per day, and in addition, has deals with Rupert Murdoch, Australian 10 Network and Global Television of Canada. For technical reasons. Risch said Newsfeed would begin servicing Mexico, followed by Latin America and South America before attempting to jump the feed over to Europe. "We're moving slowly on this," he noted modestly, "but we've managed to build this thing from Group W's five stations to 80 stations in a little over two years."

If it was sometimes difficult for American sellers to sell their programs to overseas markets-and outside the 10 or so major U.S. firms that had big hits, it often wasthen it frequently was even more difficult for a foreign producer to get its shows picked up by U.S. buyers. Jean Luc Stercks, whose Brussels-based Citespa S.A. company was trying to sell a 13-part documentary series titled Abraham's Posterity, criticized the U.S. for having "closed and protective markets." His documentary traces Abraham's pilgrimage through the Middle East. Commercial buyers balk at documentaries, Stercks said, in obvious frustration, "Everybody directed us to public television.

On the other hand, there appears to be a market for noncommercial programing produced in the U.S. and sold abroad. Bruce Paisner, president of Hearst's King Features Entertainment, said that in the three years his company has been handling the worldwide sales of noncommercial WGBH-TV Boston's programing, it has increased sales from six countries to 70 countries. And the revenue from the worldwide sale of WGBH-TVprograming-mostly Nova, Evening at Pops and Enterprise—is "in the seven figures and much of that has been plowed back to WGBH-TV."



Metromedia's Paul Rich

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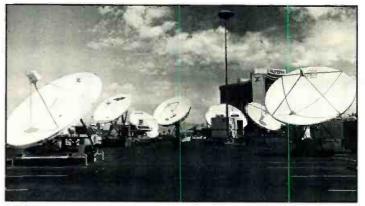


### Special Report



The annual National Association of Broadcasters convention is a cornucopia of opportunities— opportunities to buy, to sell, to learn, to inform. This year's gathering in Las Vegas should prove to be no exception. ¶BROADCASTING's convention guide begins on page 46 with an examination of some of the new or innovative radio and TV products on the exhibit floor of the Convention Center and is followed by a listing of exhibitors, networks, brokers and reps on pages 48-102. ¶A look at some of the workshops and sessions appears on page 104, with the complete agenda on pages 106-112. A guide to hospitality suites is listed on pages 112-114. ¶And NAB's president, Eddie Fritts, reviews the state of the industry and of his association in "Top of the Week."





#### Convention Center jammed with the new and the improved

The acres of broadcast gear on display in Las Vegas include the latest in recording cameras, AM stereo, teletext, HDTV and digital videotape recorders

More than 650 companies were hard at work last week, creating within the expansive Las Vegas convention center a high-tech market-place of radio and television equipment as part of the annual convention of the National Association of Broadcasters.

The marketplace, which was set to open its doors yesterday (April 29), is expected to draw thousands of broadcasters and other users of video and audio.

The annual exhibition is, in a word, comprehensive. Everything needed to equip the state-of-the-art radio or television station or video production studio is available and, in most cases, being demonstrated in the elaborate booths of the exhibiting companies.

As veteran convention-goers will readily testify, most of the hardware is continuously evolving, but little of it as rapidly as the ENG equipment. The big news in ENG this year is the promise of a standardized recording camera and the introduction of RCA's solid-state camera.

Smaller And Lighter Recording Cameras

Broadcasters want a recording camera—a small-format recorder and camera combined into one lightweight unit—for ENG, but most have balked at buying the available recording cameras with half-inch videocassette recorders because of the existence of two incompatible recording formats—the Masushita/RCA M-format and the Sony Beta format. The networks, desiring to freely interchange equipment and cassettes with other networks in the field, have been particularly reluctant to buy half-inch equipment.

The solution to the incompatible half-inch format may be a standardized quarter-inch format. After evaluating the incompatible quarter-inch recorders proposed by Hitachi and Bosch-Fernseh, a working group of the Society of Motion Picture and Television Engineers earlier this month tentatively adopted a modified Hitachi system as a SMPTE national standard.

"There is still a long row to hoe" before the standard is finalized, said Robert Thomas, ABC senior equipment planning engineer, broadcast operations and engineering, and chairman of the SMPTE working group. But Bosch-Fernseh has indicated that it will go along with a Hitachi-based standard, he said, if Hitachi can prove in demonstrations this summer that its system, using oxide tape, meets certain subjective performance criteria. Chief among them, he said, is that the system's third-generation pictures be at least as good as the three-quarter-inch Umatic recorder's first-generation images. Hitachi originally designed the recorder to use scarce metal-particle tape, Thomas said, but, to satisfy the wishes of the SMPTE committee and potential users, it revamped the system so that it could also use the readily available oxide tape.

According to Susumu Hotta, general manager of Hitachi's broadcast and professional equipment division, the Hitachi time multiplex analog-component system was modified considerably over the past year to win the approval of the SMPTE group. Besides dropping the system's reliance on metal-particle tape, he said, the recording time on the cassettes, which are slightly larger than the audio cassettes, was increased from 12 to 20 minutes.

At its NAB booth, Hitachi plans to demonstrate a prototype of the modified recorder, which it calls the Quarter Recorder, along with a complementary three-tube camera that couples with it, the SR-3C. According to Hotta, the production recording camera will not be available until the recorder passes its last round of tests and until the SMPTE group finishes work on a mechanical and electrical interface that would permit different makes of cameras and quarter-inch recorders to be coupled to form a recording camera, he said. Once the interface standard is settled upon, he said, it will be incorporated into the Hitachi equipment. Hitachi is also refining the recorder's controls, he said.

The Hitachi quarter-inch recording camera, Hotta said, will be lighter, less power hungry and cheaper than the Sony's Betacam, the most popular half-inch recording camera. With lens and batteries, he said, it will weigh 18 pounds, draw 25 watts of power and retail for around \$25,000.

At least one broadcaster is ready to leapfrog half-inch and go right to quarter-inch. According to Michael Fisher, ABC-TV's director, equipment planning, broadcast operations and engineering, the quarter-inch is better than half-inch for ENG simply because it is smaller. The smaller recorder will be more rugged and easier to handle, he said. What's more, the cassettes can be easily carried and stored. "You can put three or four of them in a man's shirt pocket," he said. "That's a hell of an advantage.... If quarter-inch really takes hold, half-inch will be obsolete."

RCA showed a prototype camera that used charged coupled devices (CCD), light sensitive silicon chips, instead of tubes during last year's NAB in a hotel suite. It earned rave reviews from most of the engineers who saw it. After nearly a year of intensive development, RCA has turned the prototype into a product. The CCD-1, as it is called, will be on sale on the NAB floor this year with a price tag of \$37,500, excluding lens. The CCD chips eliminate or alleviate many of the problems inherent in tube technology. With the chips, there is no burn-in or comet tailing, and moving objects can be captured without smearing. The chips also boast an extraordinarily high signal-to-noise ratio. The chips fall short of the tubes in horizontal resolution, but RCA is promising further chip development to improve it.

One-Inch, MERPS, Teletext, AM Stereo, HDTV and Digital VTR's

The battle between Sony and Ampex for domination of the one-inch videotape recorder market will apparently not heat up this year. Neither is introducing new machines. Ampex will return with its top-of-the-line VPR-3, general purpose VPR-2B and low-cost VPR-80. Sony will again feature its BVH-2000 and BVH-2500. Trying to challenge Sony and Ampex for a significant share of the market is Hitachi, which will show for the first time at an NAB its fully computerized HR-230. Having dropped its TR-800 VTR, RCA will be marketing the Ampex VPR-3 as the TR-400.

Several companies will be pushing multievent record/playback systems (MERPS) to replace the two-inch cart machines—RCA's TCR-100 and Ampex's ACR-25—that broadcasters have used for commercial playback for more than a decade. Panasonic will return with its MVP-100 MERPS, which can automatically feed M-format half-inch cassettes into multiple decks. Not to be outdone, Sony will introduce its Betacart system, which features four decks and room for

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Over the past year, that commitment has taken many forms. For example, the entire RKO Television "family"—WOR•TV, KHJ•TV and WHBQ•TV—took part in a comprehensive locally produced broadcast project entitled, "The Changing Family." The culmination of a year's work, it not only featured special documentar-

ies, but involved news, public affairs and programming. Each geared to a different aspect of today's changing family ...from kids, to adults, to the elderly.

In Los Angeles and New Jersey, KHJ•TV and WOR•TV both launched ambitious Job-A-Thons that turned stations into clearinghouses for real jobs. And in Memphis at WHBQ•TV, 11 tons of food was collected to help feed the area's poor and hungry.

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WOR.TV SECAUCUS NJ . KHJ.TV LOS ANGELES . WHBQ.TV MEMPHIS

40 Beta format half-inch cassettes. Whether any of the machines will be adequate to replace two-inch cart machines is uncertain; some broadcasters want better picture quality than the half-inch formats can offer.

Montage Computer Corp., of West Concord, Mass., seems to have taken a big step forward in videotape editing. As it announced earlier this month, it will be showing a sophisticated computer-based system that, as Montage software designer Michael Tindell puts it, is "an analog of the film editing process." The system uses images instead of time-code edit lists, he said. It holds up to 2,500 video clips on 14 videocassette machines, he said, and digitized snapshops of the beginnings and ends of any seven of the clips are displayed on the system's 14 black-and-white monitors. Because of the system's random access capability, he said, the system can automatically preview an entire program by playing back the clips in the designated order. "Your can really look at the whole show without having to record anything."

The exhibit will also contain some hardware that broadcasters can use to tap into what may be new revenue sources. Proponents of the North American Broadcast Teletext Standard (NABTS), which is being backed by NBC and CBS, and of the incompatible World System Teletext (WST) standard, which is being backed by Taft Broadcasting, will exhibit teletext origination equipment and urge broadcasters to initiate

local teletext services.

AM stereo equipment will be more pervasive than ever on the floor, with more companies than ever offering AM stereo transmission equipment. There will be monitors and exciters built to each of the four AM stereo systems still vying to become the nation's de facto or marketplace standard. Since receiver manufacturers will have as much impact, if not more, on which system will ultimately be the standard, their handiwork—single- and multiple-system radioswill be demonstrated. The Motorola proponents plan to have two General Motors automobiles in the parking lot, for instance, equipped with Motorola-only radios built by GM's Delco Electronics division.

Those with deep pockets will be able to buy high-definition television equipment at this year's show. Sony has announced that its full line of HDTV equipment, built to the NHK standard (1,125 scanning lines, 60 hz field rate and a five-to-three aspect ratio), is now available, but that it isn't inexpensive. The camera and control unit sells for \$200,000; the VTR with time base corrector. for \$275,000; the projection television system, for \$95,000, and the monitors, for around \$14,000. A Sony spokesman said the gear was put on the market primarily for researchers and is being sold with the caveat that an HDTV standard has not been set and that the equipment may one day become obsolete. The spokesman said some orders have already been taken, but he would not say from whom. CBS's Dwight Morss confirmed that the network has already taken delivery of a Sony camera and 17-inch monitor as well as a Panasonic 120-inch HDTV projection television system. The CBS Technology Center is using the gear in the development of its two-channel 1,050 line HDTV transmission system, he said.

One of the convention's more significant technological developments will be nowhere the exhibit floor. In a suite in the Tropicana hotel, Sony plans to demonstrate two expermental digital studio VTR's—one with 19 mm (around three-quarter-inch) tape in cassettes and the other with 19 mm tape on open reels. Sony did not arbitrarily select the 19 mm tape size. Meeting in Rome earlier this month, the European Broadcasting Union adopted the 19 mm tape size as a key element of the digital VTR standard it is working on.

According to Fred Remley, chairman of the SMPTE working group on digital VTR standards, Sony has been pushing for 19 mm tape in the group's meetings, while RCA and Ampex have been pulling for one-inch tape. Although the group has yet to reach any conclusions, he said, it's generally assumed that the digital VTR's for all applications will use cassettes. Henry Klerx, Sony's senior vice president, product operations and marketing services, said the 19 mm cassettes that will be shown in the hotel suite will not be capable of recording a full hour, but that is the goal.

#### Where the wares are

The following is a list of exhibitors for the NAB convention. The exhibit hall will be open from 9 a.m. to 6 p.m. on Sunday, Monday and Tuesday, April 29 through May 1, and 9 a.m. to 2 p.m. on Wednesday, May 2. Radio exhibits are located in the North and South halls, and the South concourse. TV exhibitors are located in the East hall and some in the South concourse. Public service and special exhibits are located in the East concourse. An asterisk denotes a new product.

Abekas Video Systems 1620A 319 Lincoln Center Dr., Foster City, Calif. 94404

Digital video systems for broadcast, postproduction and cable.

ABP Systems 1607A
400 Roosevelt Ave., Freepon, N.Y. 11520
Video systems design, engineering and construction, mobile units.

Accu-Weather
619 W. College Ave., State College, Pa. 16801
Graphics, TV and radio forecasting/briefing services, Staff: Dr. Joel Myers, Dr. Joseph Sobel Jr., Evan Myers, Jeff Bertram, Barry Lee Myers, Maria Myers.

Accurate Sound 632 3515 Edison Way, Menlo Park, Calif. 94025

Acrodyne Industries 1228 516 Township Line Rd., Blue Bell, Pa. 19422 Modular upconverter\*, 1 kw UHF LPTV transmitter\*, main and alternate transposer system with automatic switchover and optional solar/wind power systems, plus lowand medium-power television broadcast equipment. Staff: Marshall Smith, Richard Broadhead; Ray Doreian.

#### Adams-Smith

1724

34 Tower St., Hudson, Mass. 01749

Modular controllers\* for television audio synchronizing, editing and mix-down, demonstration of videotape editing using vertical interval time code. **Staff:** Harry Adams, George Jaramillo, Andy Simon, Steve Strassberg, Hal Williams.

ADC Magnetics 4900 W. 78th St., Minneapolis 55435

**132**0

Prewired jackfields, pro-audio connectors, plugs, audio components and accessories, coaxial jacks, plugs and panels. **Staff:** Sue Saltarelli, Lonnie Pastor, Jim Troutfetter, Bruce Bailey, Jack Brandmueller, Ken Masci, Pat Gallagher, V.J. Brennan, Danny Dean, Marla Coyne.

ADDA Corp. 1100

130 Knowles Dr., Los Gatos, Calif. 95030
ESP II digital still store system\*, AC 21P (PAL version of AC 20)\*, electronic still processors, library control system, dual channel video signal processor, video image processor, frame synchronizer/tlme base corrector. Staff: Bill Hendershot, Ron Fried, Janet Peterson, Frank Alioto, Walter Werdmuller, Don Carlsen, Butch Fadely, Dave Brack, Tom Califano, Emerson Ray, Sheila Ross, Jon Teschner, Bernie Munzelle, Tim Stockhaus, Frank Bush.

ADM Technology 1223 1626 E. Big Beaver Rd., Troy, Mich. 48084

Stereo television on-air and production audio consoles. **Staff:** Robert Bloom, John Juhasz, Murray Shields, Bill Keeley, Larry Mandziuk, Rick Fisher, Gordon Peters, Ron Webb.

Advanced Designs Corp. 146
924 W. 17th St., Suite 3, Bloomington, Ind.
47401

Advanced Music Systems 1330
Wallstreams Ln., Worsthorne, Burnley Lancs.
UK

Digital audio processing systems.

AEG Telefunken (Bayly) 167 Hunt St., Ontario LISIP6

FM transmitters, remote control, two-way radios, advertising display and data on all Telefunken transmitters LW, MW, HF, VHF, UHF, up to 500 kw. **Staff:** H. Schmidt, J. Graaff, I. Mark

124

1608

Agfa-Gevaert 275 North St., Teterboro, N.J. 07608

Tapes, bulk duplicators, mastering tape\*. Staff: Maria Curry, Dave Rubenstein, John Matarazzo, Ken Wiedeman, Ruth Hladyk, Andrew DaPuzzo, Bob McNabb, Joe Tibensky, Ed Walton, Barry Rosen, Barry Bindell, Mark Nevejans, Bob Zamoscianyk, Peter Jensen, John Riggs.

A.F. Associates 1611
100 Stonehurst Ct., Northvale, N.J. 07647

Turnkey video systems and mobile units, Marconl digital line array telecine, digital standards converter, VTR's. **Staff:** Arnold Ferolito, Lou Siracusano, Marty Irwin, Irv Pannaman, Dick Sirinsky, Tom Canavan, Richard Lunniss, Bill Ebell, Al Slater, Andre Macaluso, Bud Pearson, John Dale, Marc Bressack.

Alamar Electronics 187 478 W. Hamilton Ave., Suite 207, Campbell, Calif. 95008

Alden Electronics 1336
Washington St., Westborough, Mass. 01581

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News & Program Director
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Alexander Mfg.

1714

1511 S. Garfield Pt., Mason City, Iowa 50401 Battery packs for VTR and ENG equipment, one and three unit analyzers for battery packs\*, six-unit sequential charger for VTR and ENG\*. Staff: Robert Williams, Georgia Franks, William Sapp, William Sapp Jr., Charlie Stinson, Jim Sapp.

Allen Avionics

11501

224 E. Seconi St., Mineola, N.Y. 11501 Video delay lines and filters, LC delay lines and filters, equalizers, hum eliminator. Staff: Lester Jacobson, John Sessoms, Richard Mintz.

Allied Broadcast Equipment 639-41 635 Southeast St., Richmond. Ind. 47374

Audio and RF equipment. **Staff:** Roy Ridge, David Burns, Bob Groome, Jeff Nordstrom, Cal Vandegrift, Pat Hurley, John Timm, Joe Ziemer.

Allied Tower 409
12450 Old Galveston Rd., Webster, Tex. 77598
Designs, fabricates and installs broadcast transmission towers. Staff: Jerry Bennett, V.G. Duvall, Charlie White, Richard Jessup.

Allsop 1177 Box 23. Bellingham, Wash. 98227

Video recorder cleaners, microcassette cleaners. **Staff:** Jeff Heininger, Eivind Clausen, Mike Allsop, Ivor Allsop, Jim Allsop, Randy Lervold, Charley Highlander, Tena Veenstra.

Alpha Audio 210, 1331A 2049 W. Broad St., Richmond, Va. 23220 Acoustical foam. Staff: Eric Johnson, Nick Colleran, David Jones, Bobby Tulloh, Carlos

Alpha Video & Electronics 645 28 E. Mall Plaza, Carnegie, Pa. 15106 Alphabetized Sony type VTR's\*. Staff: Henry Lassige, Terance Lassige, Vincent Ferry, Thomas Stoffel, John Tomini, Gary Craig.

Altran Electronics 124A 17021 Kingsview Ave., Carson, Calif. 90746-AM SCA services.

Amber Electro Design 422
4810 Jean Talon West, Montreal H4P 2N5
Model 5500\* programable distortion and noise measuring systems. Staff: Wayne Jones, Mike Hogue, Larry Maguire.

Amco Engineering 1218
3801 N. Rose St., Schiller Park, Ill. 60176
Modular instrument enclosures, consoles
and cabinets, computer desks and desktop cabinets, blowers, fans and accessories. Staff: Floyd Johnson.

Amek Co. 1620
11540 Ventura Blvd., Studio City, Calif. 91604
Stereo television audio console, television post-production console with audio follows video module and stereo input modules, portable broadcast console. Staff: Tim Mungouan, Arnie Toshner, Bob Owsinski, Jim Vaughn, Graham Langley, John Penn.

American Diversified 176 3200 Park Venter Dr., Costa Mesa, Calif. 92626

American Horizon 1122A 1481 N. Fruitridge Ave., Terre Haute, Ind.

American Image Productions 653
112 Union Ave., Memphis 38103

Radio and TV station image campaigns\*, station ID's, sales production libraries.

Staff: Jerry Williams, Richard Fain, George Lale.

808

Ameritext
341 Madison Ave.. New York 10017

World system teletext system, origination and receiving equipment, Keyfax and Electra teletext services. **Staff:** Steve Crowley, Jerry LeBow, Bernard Koteen, Alison Langridge, Lisa Stevenson, Minoo Saboori, Cliff Hargest, Malcolm Walker, John Taylor.

AMP Special Industries 634
Box 1776, Southeastern, Pa. 19301

Amperex 1412 Providence Pike, Slatersville, R.I. 02876

XQ4087 half inch diode gun plumbicon\*, YK1263 klystron, camera tubes and accessories for color studio and portable cameras, transmitting tubes, diode gun low output capacitance camera tubes. **Staff:** Bob Richman, Greg Smith, Don Whife, Sandy Camicia, Lee Nowell, Ron Barnes, Tom Perry, Raleigh Utterback, Greg Murphy, Kipp Rabbitt.

Ampex 401 Broadway, Redwood City. Calif. 94063 Studio and portable videotape recorders, M-format camera/recorder system portable ENG/EFP camera, editing systems, switchers, digital special effects systems, still store systems, time base correctors, video and audio magnetic tape. Staff: M. Sanders, D. Chapman, S. Faught, D. Kleffman, C. Moggs, W. Scullion, T. Nielson, J. Williamson, A. Bergman, R. Antonio, D. Haight, D. Bogue, R. Natwick, B. Ballantyne, G. Easton, C. McCartney, R. Ostrom, F. Rush, G. Rose, D. Schmitt, R. Stanford, P. Hansil, J. Byars, E. Higgins, J. Houman, M d'More, R. Coornes, J. Walsh, M. Wolschon, C. Wright, F. Nault, T. Johnston, H. Persoon, L. Roberts, R. Miller, D. Carroll, D. Clayton, R. Ide, M. Pinkel, M. Wachtel, R. Welsh, B. Carpenter, J. Clardy, T. Hasty, P. Zakit, B. Bohunicky, B. Justus, R. Marconi, D. Massa, T. Goldberg, J. diGeorge, P. Wonfer.

Amtel Systems 1745
400 W. Cummings Park, Woburn, Mass. 01801
VITC/LTC reader, portable VITC/LTC generator, SMPTE generator/reader, distribution amplifiers. Staff: Mark Wronski, Peter McDonnell, Gary McKoen, Allan Leon, Michael Martin, Donald Herring, Alan Lambshead, Sean Carnahan, Edward Labanowicz, Allan Proctor

Anchor Systems 1618C 5097 Sante Fe, San Diego 92109

Portable, mini, P.A. and monitor and mobile audio systems.

Andrew Corp. 1201A 10500 W. 153d St., Orland Park, Ill. 60462 Earth stations, microprocessor controlled ESC-200, broadcast transmission lines, UHF circular waveguides, LPTV transmitters, high powered UHF transmitters, coaxial cable and elliptical waveguides, UHF stand-by antennas.

Angenieux 1201
770 N. Kendall Dr., Suite 303, Miami 33156
Zoom lenses and optical accessories for broadcast cameras. Staff: B. Angenieux, C. Stampfli, J. Abbatucci, P. Hawkes, G. Corbasson, J. Angenieux, J. Naime, F. Guillot, J. Martinez, Tang Sum.

Antenna Technology 1737 8711 Pinnacle Peak Rd., Suite C-103, Scottsdale, Ariz. 85255 Three-meter, five-meter and seven-meter\* earth stations. **Staff:** Joe Stever, Scott Grone, Eric Schechter, Gary Hatch, Al Libby, Gary Hester.

Anton/Bauer 1337
One Controls Dr., Shelton, Conn. 06484

Portable battery and lighting equipment for cameras, VTR's, monitors. **Staff**: George Bauer, Anton Wilson, John O'Keefe, Joseph Lantowski, Jane Lytle-Manns, John Corrigan.

Anvil Cases 1112 4128 Temple City Blvd., Rosemead. Calif. 91770

Heavy duty and rackmount cases.

Apert-Herzog 1703 7007 Realm Dr., B3, San Jose, Calif. 95119 Model A2 digital frame synchronizer\*, model H2 time base corrector/synchronizer\*, digital time base corrector, video distribution amplifier, video building block line driver in a chip, digital video tester. Staff: William Herzog, William Nichols, William Hardy, Ken Herzog, Debra Reinert, Linda Giffin.

Aphex Systems 513
13340 Saticoy St., N. Hollywood, Calif. 91605
Staff: Marvin Caesar, Jon Sanserino. Johnny Garcia, Paula Lintz, Jim Martindale, Harvey Rubens, Linda Goodman, Donn Werrbach.

Apis Corp. 1762 2960 S.W. Temple. Salt Lake City 84115

Applied Digital Technology 1730 17 E. 96th St., New York 10028

Toby Arnold & Associates 107 3234 Commander Dr., Carrollton, Tex. 75006
Automated and live-assist radio formats.
Staff: Toby Arnold, Dolly Arnold, Jim Kerr,
Norma Kerr, Bill Pasha, Chris Clausen, Carolyn Clausen.

Arbitron
1350 Avenue of the Americas, New York 10019
Target AID, Arbitrends, Radio Today, computer graphics, television meter measurement. Staff: Ted Shaker, Rick Aurichio. (Radio)—Joe Buys, Dave Burril, Susan Dingethal, Cliff Fletcher, Scott Herman, Marv Korach, Bill Livek, Tom Murphy, Dean Mutter, Rip Ridgeway, Maddy Schreiber, Dick Sheppard, Janet Zahler. (Television)—Pete Megroz, Kathy Baske, Doug Marks, Jim Mocarski, Jon Nottingham, Bill Shafer, Kit Smith, Dennis Spragg, Mark Stephen, Mark Young.

Arrakis Systems 211
400 Cormorant Ave., Fort Collins, Colo. 80525
Audio consoles, audio routing switchers.

Arriflex Corp. 1421 500 Route 303, Blauvelt, N.Y. 10913 Power supplies.

Artel Communications 1163 93 Grand St., Box 100, Worcester, Mass. 01602 Fiber optic transmission capability system\*, both portable and fixed, multichannel systems for multiplexed video and dual audio, battery-operated portable ENG/EFP systems and high resolution video systems for RGB computer graphics and HDTV, fiber optic cables. Staff: Tad Witkowicz, Richard Cerny, Alan Kent, Nancy Krakora, Steve Lang, Jeff Mauro, Steve Mariuz, Bob Hart.

Asaca/Shibasoku 1226 12509 Beatrice St., Los Angeles 90066 Video and audio test equipment, cart sys-

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McGavren Guild Radio Hillier, Newmark, Wechsler & Howard Major Market Radio Weiss & Powell tem\*, multi-image viewers\*, high-definition TV monitors\*, 150 mhz sweep and digital signal generators\*. **Staff:** Alan Davis, Susan Grossinger, K. Ezoe, H. Nishimura, R. Maefune, T. Shigezaki, N. Shigezaki, Paul Backer, Frank Santucci, Len Dozier, Tim Moore, I. Ichinose.

Associated Press 419/2976 50 Rockefeller Pl., New York 10020

AP Radio Wire, AP Network News. APTV, AP laserphoto, AP photo color, AP Newscable and Music Country Network. **Staff:** Roy Steinfort, Glenn Serafin, Bill Cook, Brent Kallestad, Jim Williams, Jim Hood, John Kenney, Sue Cunneff, Rosie Oakley, Jim Spehar, John Schweitzer, Jerry Jackson, John Harrls, John Strachan, Ed Busch.

Associated Production Music 150 888 7th Ave., New York 10106

Atlas Tower 443 227 S. Vann, Vinita, Okla. 74301

Manufacturing, erecting and leasing of radio and TV broadcast, microwave, industrial and utility towers. **Staff:** George Bubrick, Richard Bell. Dan Weathers.

AT&T Communications 407
Route 202-206, Bedminster, N.J. 07921

AT&T Information Systems 1429 I Speedwell Ave., Suite 641E, Morristown, N.J. 07960

Call management with voice response, interactive voice and data management, teleconferencing. Staff: Alan Adler, Hugh Jarrett, Gary Tarantino, Al Werner, Norm Korin, Larry Hendrickson, Marsha Gewirtzma, Terry O'Connell, Charlie Maynard, Shirley Marrs, David Hammond, Joe Sperino, Susan Littell, Joe McKeown, Jeff Syphus.

Auburn Instruments 1711
107 Church St., Waterlown, Mass. 02172
Two-wire machine remote control system.
Staff: Donald Kalischer, Eric Aker.

Audico 1343 219 Crossen Ave., Elk Grove, III. 60007 Videocassette tape loader, reloader, rewinder, Model 619 VCR\*. Staff: Bill Hinkle, Norm Deletzke.

Audi-Cord
1845 W. Hovey Ave., Normal, Ill. 61761
Models A, S and TDS\* cartridge tape machines. Staff: Carl Martin, Delmar Rowe,
Duane Martin, Michael Craig, Carol Williams

Audio Broadcast Group 637A 2342 South Division, Detroit 49507

Audio Developments 1743 414 N. Sparks St., Burbank, Calif. 91506 Multimixer, pico mixer, ENG mixer. Staff: Antony Levesley, Roger Tromans, Ron Feller.

Audio Engineering 174
1029 N. Allen Ave., Pasadena, Calif. 91104
Record cleaning machine\*. Staff: Wes Dooley, Michael Baskin.

Audio Kinetics 1173 4721 Laurel Canyon Blvd., Suite 209, N. Hollywood, Calif. 91607

Time code synchronizers.

ATI-Audio Technologies 420
328 W. Maple Ave., Horsham, Pa. 19044
Audio processors, amplifiers, microphones.

Audio Video Consultants 234
11538 Prager Ave.. Lake View Terrace, Calif.
91342

Audlo + Design 40 Box 768, Bremerton, Wash. 98310

SCAMP 4-band modular processing systems for TV/AM/FM satellite applications\*, F601 superdynamic limiter\*, ambisonic surround sound system\*, compressors, limiters, expanders, filters, distribution amps, condensor and soundfield microphones\*. Staff: Nigel Branwell, Kathleen Mallory, Howard Smith, Michael Beville.

Audio-Technica 1141
1221 Commerce Dr., Stow, Ohio 44224
Microphones, mixing consoles, headphones, tone arms, phono cartridges.

Auditronics 505
3750 Old Getwell Rd., Memphis, Tenn. 38118
Broadcast consoles, audio and multichannel production consoles, audio distribution amplifiers, programable equalizer. Staff: Welton Jetton, Steve Sage, Jim Woodworth, Larry Lamoray, Jerry Puckett, Keith Arnett.

Aurora Systems 1312 185 Berry St., Suite 143, San Francisco 94107 Digital videographics and animation system. Staff: Richard Shoup, Damon Rarey, W. Tom Beams, Chuck Kozak, Donna Foster-Roizen.

Autocue 1318A 33 W. 60th St., New York 10023

Autogram Corp. 120
Box 456, 631 J Pl., Plano, Tex, 75074
Microgram production consoles (six-, eight-

Microgram production consoles (six-, eightand 10-channel). **Staff:** Ernest Ankele, De-Lores Ankele, Neva White, Jim Laird, Don Kuhlsmann, Richard Benjamin.

Avantek 1742
481 Cottonwood Dr., Milpitas, Calif. 95035
AR-2000 simulchannel earth station video receiving system. Staff: Rob Corrao, Don Smith, Bill Le Doux, Dave Stogner, George Sears, Eric van der Kaay.

AVC Systems 331 1517 E. Lake St., Minneapolis 55407

Consoles, reel-to-reel machines, loudspeakers, microphones, compellor and aural exciters, digital audio processors. **Staff:** Billy Emery, Michael Halleck, Doug Ordon.

William Bal Corp. 161a 947 Newark Ave., Elizabeth, N.J. 07207

Barrett Associates 103 800 Grand Ave., Suite C-1, Carlsbad, Calif, 92008

Staff: Mayer, Kettering, Mayou, Robison.

Basys 1129
2685 Marine Way, Mountain View, Calif. 94043
Newsroom computer equipment and software. Staff: David Lyon, Ed Grudzien, Joe McGoldrick, John Chapman, Dan Moloney, Roy Terry, Ted Feurey, Peter Kolstad, Roy Holland, Adrian Scott, Claire Pullinger.

Bayly (see AEG Telefunken)

Beaveronics 1313 8 Haven Ave., Port Washington, N.Y. 11050

Belar Electronics Box 826, Devon, Pa. 19333

AM modulation monitors, stereo frequency monitors, FM modulation monitors and stereo monitors, TV aural modulation monitors and frequency monitors, SCA monitors for FM and TV, AM, FM and TV RF amplifiers.

2000 Batavia, Geneva, Ill. 60134
Color and resin filters.

Belden Communications

534 W. 25th St., New York 10001

Filters.

Beston/McInnis-Skinner 1020 15315 S 169 Hwy., Box 937, Olathe, Kan. 66061 Data-Graphics, Newscan, data prompters, electronic newsroom and character generator equipment, production titlers. Staff: B.J. Lipari, Don MacClymont, Rod Herring, Bob Barnes, Judy Skinner, Marvin McInnis, Bill Borchert, Brian Bruton, Dave Anderson, Bud Malone, Ross Dixon, John Wall, Dale Leinen.

1628

426

Beyer Dynamic 5-05 Burns Ave., Hicksville, N.Y. 11801

Dynamic condenser microphones, headphones, microphone stands, booms and accessories.

BGW Systems 421 13130 S. Yukon Ave., Hawthorne, Calif. 90250 Audio power amps.

Bird Electronic 1625 30303 Aurora Rd., Cleveland 44139

15 kw and 25 kw load resistors\*, RF measurement components, RF wattmeters\*, heat exchanger loads, line terminations, digital calorimeters, **Staff:** Bruce Bird, Leon Kuklinski, Greg Johns, Leo Lesyk, Rick Nelson, Herbert Heller, George Churpek.

BIW Cable Systems 1405 65 Bay St., Boston 02125

Cable, connectors, assemblies and repair services for broadcast cameras, armoured VTR cable assemblies\*, quick disconnects VTR cable assemblies\*. **Staff:** J. Rath, J. Hathaway, R. Osburne, E. Konkel, J. Pirrons.

Black's Communications Consultants 657 120 W. Picacho, Las Cruces, N.M. 88005

Bogen Photo 1705 100 S. Van Brunt St., Englewood, N.J. 07631 Cine/video tripods, fluid heads and accessories\*, quartz lighting, support/background equipment, light stands. TSE video cases\*, M-100 mini video light\*, Micro fluid head\*, filters, dollies, video accessories. Staff: Bruce Landau, Kriss Brunngraber.

Bogner Broadcast Equipment 1319 401 Railroad Ave., Westbury, N.Y. 11590

High power UHF TV transmitting antenna (220 kw), low and medium power VHF and UHF slot and dipole transmitting antennas, circularly polarized FM transmitting antennas, MDS and ITFS transmitting and receive antennas, LPTV transmitters and communication antennas for cellular radio. **Staff:** Richard Bogner, Leonard King, Robert Piano, Steve Weinstein, Joe Nigro.

Boonton Electronics Corp. 228
791 Route 10, Randolph, N.J. 07869

Bosch 1603 2300 South 2300 W., Salt Lake City 84119

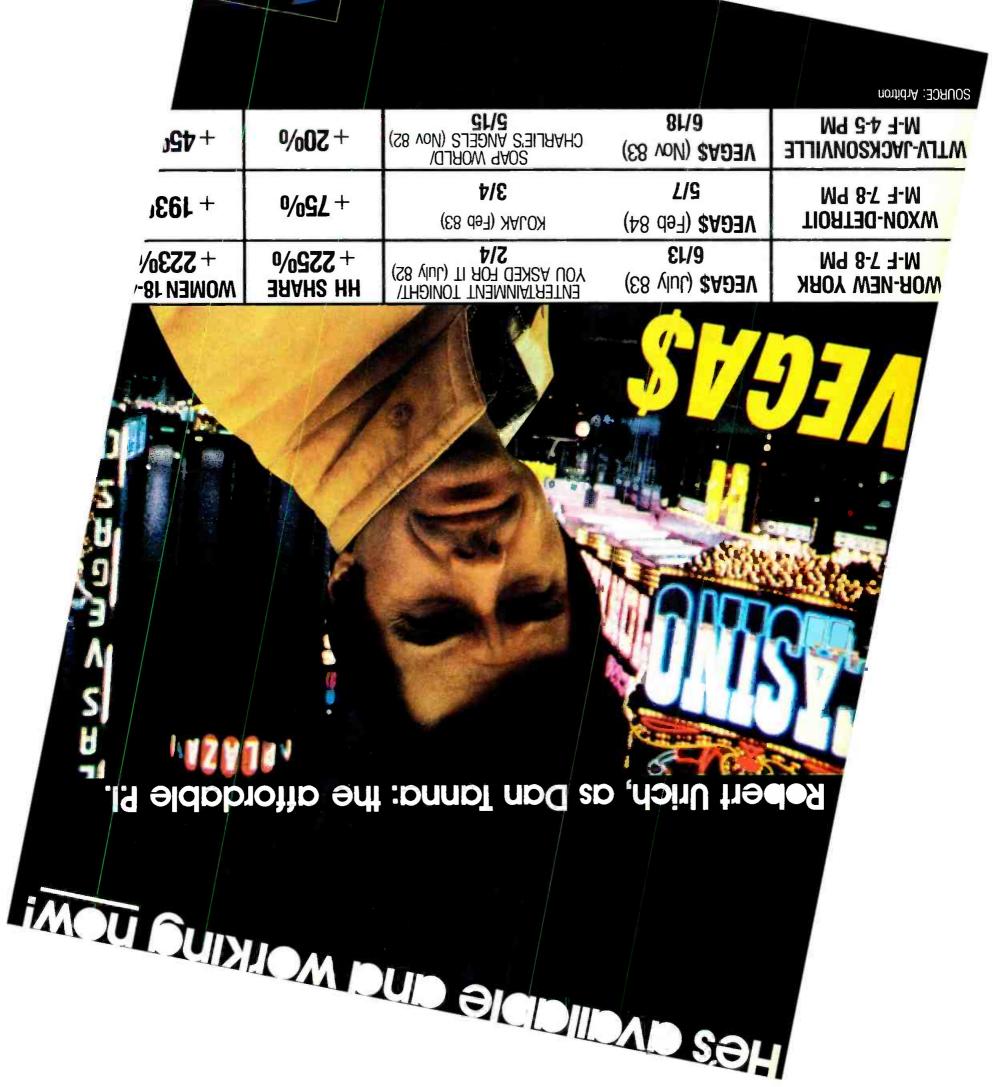
TVS TAS 2000 routing switcher\*, microprocessor-controlled graphic paint box system\*, graphic system animation system\*, control panels for routing switchers including telephone address panels\*, camera/recorder including playback routing switcher\*, videotape editing system, character generators, telecine, videotape recorders, monitors, cameras, machine control sys-

monitors, cameras, machine control system. Staff: William Butler, Dietmar Zieger, A.R. Pignoni, Anthony Maglicco, Eloy Chairez, Ron Ferguson, John Webb, Davis Spindle, Paul Scaglione, O. Oechsner, H.

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METROMEDIA

Groll, D. Pohl, W. Fink, H. Schoenberg, H. Deutschmann, H. Schenider, E. Remiger, H. Trein.

Bowen Broadcast Service 1770 8343 Lynn Haven Ave., El Paso 79907

Equipment computer system\*. **Staff:** W. Bowen, S. Bowen, Pauline Bowen, Leroy Bowen, Jerry Servatius, John Thayer, George Nowak, Connie Benson, Mague Pitones.

BPI 200

Box 2027, Bellevue, Wash. 98009

Album Rock, Personality Adult Contemporary, Personality Country, Compulist, MOR, classical, beautiful, easy listening, consultancy. **Staff:** Bob English, John Sherman, Beau Phillips, Bob Wikstrom, Bill Wolkey.

Bradley Broadcast Sales 186 15555-L Frederick Rd., Rockville, Md. 20855

Broadcast Audio 319 11306 Sunco Dr., Rancho Cordova, Calif. 95670 Audio consoles, amplifiers, studio furniture. Staff: David Evans, John Fernandez, Gary Maggiore, Doug Laue.

Broadcast Cartridge Service 611 1513] Triton Ln., Suite 108, Huntington Beach, Calif. 92649

Reconditioning service, tape cartridges, storage systems, alignment tools, accessories, fone box, AA-4 stereo cartridge\*. Staff: Bryant Ellis.

Broadcast Electronics 303
4100 N. 24th St.. Box 3606, Quincy, Ill. 62305
FM transmitters, exciters, stereo and SCA
generators, microprocessor program automation system, cartridge machines, audio
control consoles, turntables, preamps, exciters, stereo generators, tonearms. Staff:
Lawrence Cervon, Curtis Kring, Geoff Mendenhall, Joseph Engle, E.L. Corujo, Tim
Bealor, Gil Housewright, Dick Anderson,
Rick Carpenter, John Lyles.

Broadcast Microwave Services 1749 7320 Convoy Ct., San Diego 92111

Portable microwave equipment for helicopters and vans, transmitters, receivers and antennas.

Broadcast Music 619 320 W. 57th St., New York 10019

Staff: John Alves, Paul Bernard, Edward Chapin, Edward Cramer, Thomas Curry, Oliver Henry, Ed Molinelli, Rick Reichenbach, Alan Smith, Lawrence Sweeney, Joan Thayer, Robert Warner, Theodora Zavin.

Broadcast Supply West 112A 7012 27 St. W, Tacoma, Wash. 98466

Wall racks, carousel racks\*, turntable bases, preamps\*, tonearms. **Staff:** Irv Law, Bernice McCullough, Tim Schwieger, Jon Ferren, Pat Medved.

Broadcast Systems 1500 8222 Jamestown Dr., Austin, Tex. 78758

DC-8 automatic video cartridge machine\*, pro pak equipment cabinets\*, machine control and interface panels\*, prewired audio jack panels. **Staff:** Donald Forbes, John Harms, Chuck Balding, Les Hunt, Byron Fincher, Jim Spears, Art Smith, Tom Welsh, Jay Kirtley, Jay Riekenberg, Fred Scott.

Broadcast Technology 1701 33 Comac Loop, Ronkonkoma, N.Y. 11779

Vector 4000 single pair 24-channel monitor distribution system\*, TI 5000 telephone hybrid system with automatic answering\*, Mix Minus with 5-level priority interrupt\*, pro-

gram interrupt, audio card line and card frames. **Staff:** Louis Lindauer, John Bubbers, Rex Nathanson.

Broadcast Video Systems 1326 1050 McNicoll Ave., Unit 15, Agincourt, Ont. M1W 2L8

CVP-100 computer video processor\*. BVS NTSC decoder\*. Cox component downstream keyer\* and color corrector\*, NTSC/PAL encoder, combined waveform/vector monitor, video delay lines and filters, encoded color corrector with time code control and safe area generator. Staff: Bert Verwey, Andy Wintonyk, Brian Elliot, Tony Frere.

Bruel & Kjaer Instruments 511 A 185 Forest St., Marlboro, Mass, 01752

Studio microphones (4003, 4004, 4006, 4007) for broadcasting, recording and sound reinforcement and line amplifier/power supply. **Staff:** Dick Trump, John Bareham, Lou Cowherd, Glen White, Dick Lewis, Henning Moller, Rob Green.

Bryston Ltd. 517 57 Westmore Dr., Rexdale, Ont. M9V 3Y6 2B-LP 50 watt, audio amplifier. Staff: John Russell, Christopher Russell.

BSM Systems 637 S. 9604 Cedar Rim Ln., Spokane, Wash. 99204 Audio routing switchers, video routing switchers, audio distribution amplifiers.

BTX Corp. 1124
75 Wiggins Ave., Bedford, Mass. 01730
Time code products, synchronizers, edit/controllers, readers and generators.

B&B Systems 222 28111 Avenuè Stanford, Valencia, Calif. 91355

BW Lighting Systems 1753
Box 470162, Tulsa. Okla. 74147

Tall Cyc cyclorama lights, cyclorama track systems with curtains, lighting fixtures and portable lighting kits. **Staff:** Wally Whaling, W. Blair Powell, Nancy Parker.

Cablewave Systems
60 Dodge Ave., North Haven, Conn. 06473
Antenna and transmission line systems, low loss foam coaxial cable\*, 18 ghz antenna\*.
Staff: Ken Robinson, Bill Meola, Douglas Proctor, Harry Lambert, Margie Barneschi, John Gailey, Pierre Suard, G. Dupuy D'An-

geac.

Calvert Electronics

One Branch Rd., East Rutherford, N.J. 07073

Distributor of broadcast related electronic components including those of Amperex, Eimac-Varian, RCA, GE, Raytheon, Westinghouse, and including camera tubes. Staff: Larry Broome, Raul Melo, Jack Stack.

Calzone Case 1179
225 Black Rock Ave.. Bridgepon, Conn. 06605
Travel and shipping cases including video, camera, rack mount, camera, monitor, lighting and editing systems, recording, audio and broadcasting. Staff: Joe Calzone, Vin Calzone. Tom Mackno, Greg Ouzunoff, Jim Edelmann, Perry Lengyel, Leslie Mola, Wayne June, Jim Monroe, Joe Calzone Jr., Betsy Calzone, Lesley Hyde, Craig Coldiron, Alan Sarfaty, Randy Tecicki.

Cambridge Products Corp. 1328 244 Woodland Ave., Bloomfield, Conn. 06002 Staff: Alan Horowitz, Joyce Johnson.

Camera Mart 1018 456 W. 55th St., New York 10019 Video production and post-production equipment. **Staff:** Samuel Hyman, Paul Meistrich, Shelly Brown, Jeff Wohl, Herb Browning, Leo Rosenberg, Ray Blumenthal, Shimon Ben-Dor, Dean Leeson, Peter Leeson, Nick Liatsis, Steve Gordon, George Winslow, Jean Yacobellis, Cathy Smith, Jessie Diaz, Laszlo Denes, Quent Nelson, Jose Rosado, Barry Glasser.

Canare Cable 1732 6733 Vineland Ave., N. Hollywood, Calif. 91606

Canon U.S.A.

One Canon Pl., Lake Success. N.Y. 11042

Lenses. Staff: Tom Yamasaki, Jack Keyes, Ken Rice, Todd Okugawa, Kenji Saotome, Bob Low.

Capitol Magnetic Products 206 6902 Sunset Blvd., Hollywood. Calif. 90028 AA4 broadcast cartridge\*, demonstration of AA4 in hands-on production unit. Staff: Larry Hockemeyer, Joe Kempler, Dick Dunleayy, Dennis Schleich, Gordon Stafford.

Capitol Production Music 16: 1750 N. Vine St., Hollywood, Calif. 90028

CAT Systems

401 E. 74th St., New York 10021

Computerized remote control system with cofor graphic displays for radio, TV and earth station facilities, facility monitoring system\*, security system\*, computerized automation for telesystems, computer systems, station planning and construction. **Staff**: J. M. Soli, T. J. Vaughan, S. Pumple, M. Des Noyers.

CBS Radio Stations News Service 606 2020 M St., Washington 20036

Byline Magazine with news/information features. **Staff:** Allen Balch, Anna Mae Sokusky, Nancy Johns.

CBX Inc. 160 147 E. Olive Ave., Monrovia, Calif. 91016

Ceco Communications 1010A 2115 Avenue X, Brooklyn 11235

Broadcast transmitting and receiving tubes, semiconductors, video equipment, camera tubes. **Staff:** Anthony lanna, Lew Levenson, Hugh Mullins, Fred Andersen.

Celestial Mechanix Inc. 441
612 Hampton Dr., Venice, Calif. 90291

Staff: Robert Benderson, Edward Dale, Leah Brown, Roseann Schyjer.

Celwave R.F. 202

Route 79, Marlboro, N.J. 07746

**Staff:** Saul Esocoff, Jack Nevin, Ed Boehm, John Peterson, Henry Edwards, Bill Bryson, Don Ayes.

Central Dynamics 1409
401 Wynn Dr., Huntsville, Ala. 35805
Video production switchers, FlexiKey digital

video production switchers, Flexikey digital video effects system, distribution amplifiers, master control switchers, signal distribution system, routing switchers, downstream keyer.

Centro Corp. 110 9516 Chesapeake Dr., San Diego 92123

Tractor/trailer remote production unit, editing console, portable display and graphics modules for video teleconferencing. **Staff:** Darrell Wenhardt, Fred Powers, Rex Reed, Wayne Opperman, H.A. Smith, Al Cervenka, David Shiff.

Century Precision Optics 1781 10713 Burbank Blvd., N. Hollywood, Calif. 91601 Century periscope lens\*, .7x wide angle adaptor for zoom lenses\*, duplikin III for two-thirds and one-inch video\*, tele-alhenar telephotos for video and film use, super teles modified for video and film and wide angle lenses. **Staff:** Steve Manios, Steve Manios Jr., William Turner, Jeff Giordano.

#### Century 21 Product and Program 204 4340 Beltwood Pkwy. Dallas 75234

Programing and equipment for automated and live-assist radio, including 19 formats, Motivators production service\*.

#### Cetec Antennas 509

Box 28425, Sacramento, Calif. 95828

FM and TV antennas including circularly polarized spiral, circularly polarized FM panel antenna\*, horizontally polarized TV antennas, combiners, filters and turnkey antenna systems. **Staff:** Jim Oliver, Bill Cunningham, Ed Fitzgerald, Ali Mahnad.

### Cetec Broadcast Group 509 1110 Mark Ave.. Carpinteria, Calif. 93013 Business systems, program automation systems\*.

Cetec Vega 1401C 9900 Baldwin Pl., El Monte, Calif. 91731

Portable battery power receiver with Dynex II\*, Portable diversity battery powered receiver with Dynex II\*, T-81 through 83 hand held transmitter with D II\*, impedance converter for musical instrument pick-up\*, pocket transmitter with Dynex II, pro, pro plus and pro plus diversity receiver with Dynex II, wireless intercom full duplex master stations, wireless intercom body pack receiver and transmitter, quad case. Staff: Paul Baughman, Ken Bourne, Gary Stanfill, Stan Fowler.

#### Channelmatic 328

821 Tavern Rd., Alpine, Calif. 92001

Chemigraphic Products 659 301 Veterans Blvd., Rutherford, N.J. 07070

#### Chester Cable 1320A

Drawer D. Chester, N.Y.

Studio wire and cable. **Staff:** Bill Dungan, Ken Wyant, Rich Smalling.

Christie Electric Corp. 1403A 20665 Manhattan Pl., Torrance, Catif. 90501 Batteries, belt packs for VTR's, power supply, burping charger\*, bulk tape/cassette degaussers. Staff: Fred Benjamin, Diane

Chroma Digital Systems

Church

Engineer, manufacturer and marketer of digital, television equipment\*, Chromafex 766 special effects device. **Staff:** John Sparkman, Carl Youngberg, Brian Cabeceiras.

#### Chyron Corp. 1610

265 Spagnoli, Melville, N.Y. 11747

Expanded Chyron IV\*, and VP-2\*, remote graphics unit, character generators. **Staff:** Joseph Scheuer, David Buckler, Ron Witko, Janice Haigney, Bill Hendler, Bill Reinhart, James Keane, Steve Sadowsky, Larry Mincer, Susan Stanco, Andrea Geiger.

#### Cine 60 1423

630 Ninth Ave., New York 10036

Battery systems, chargers, power supplies, lighting equipment. **Staff:** Paul Wildum, Don Civitillo, Bob Kabo, Evan Green.

#### Cinema Products 1221

2037 Granville Ave., Los Angeles 90025 Video cameras, remote control systems, power supplies, portable camera prompting systems, fresnel light systems, microphone boon.

#### Cinemills Corp.

3500 W. Magnolia Blvd., Burbank, Calif. 91505

#### Cipher Digital 150 Huntington Ave., Boston 02115

Vertical interval time code products, high resolution character displays.

#### Circuit Research Labs (see CRL Audio)

#### Clear-Com 1502

1111 17th St., San Francisco 94107

CP-300 remote station, TW-12 interface device. **Staff:** Robert Cohen, Peter Giddings, Gerow Brill, William Fluster.

#### Clyde Electronics 204A 1660 NW 18th Ave., Delray Beach, Fla. 33445 Modular broadcast mixer and delta pushbutton news mixer.

CMC Technology 1425
2650 Lafayette St., Santa Clara, Calif. 95050
Refurbishing of quad video and audio head components. Staff: William Fitts, Tony Mlinaric, Willard Bell, Robert Pearson, Jim Whitely, Fred Koehler, Tommy Thompson, Bill Zimborski.

#### CMX/Orrox 163

3303 Scott Blvd., Santa Clara, Calif. 95030 Medium and large scale editing systems. Staff: Philip Arenson, Allan Behr, Stanley Becker, Gary Schultz, Gary Hinderliter, Ed Bolger, George Cotroneio, Murray Bevitz, Richard Slatln, David Orr, Bill Ludwig, William Fink

#### Colorado Video 12

Box 928, Boulder, Colo. 80306

Model 250 T transmitter and 250R receiver for slow-scan television transmission over 8 khz audio subcarrier bandwidth. **Staff:** Jim Dole, Richard Taylor.

#### ColorGraphics Systems 1114A, 1116 5725 Tokay Blvd., Madison, Wis. 53713

Ultra high resolution color weather graphics system, data storage, news/weather/sports computer system, election graphics. **Staff:** Terry Kelly, Dick Daley, Chris Alvord, Bob Waever, Valerie Jones, Doug Hiwahara, Linda Post, Chuck Beichlin, Jim Waterman, Ron Clowney, Scott Harris.

#### Colortran 1205 1015 Chestnut St., Burbank, Calif. 91506 Fresnels

Columbine Systems 118, 1323

7 Jackson Bidg., Golden, Colo. 80401
Broadcast information system with traffic, sales, billing, accounts receivable, payroll, general ledger, accounts payable, cash management, music, media inventory and film investing and amortization.

#### Comark Communications 1217 Box 257, Feeding Hills Rd., Southwick, Mass. 01077

110 kw S series UHF transmitter\*, Magic T RF power combiner with switchless bypass system\*, automatic multiplexed diplexer system\*, BCD/ABC pulsing system\*, ED and ICPM corrector system\*, high-tech exciter system\*, broadcast modulator with IF SAW filter\*, mod anode pulsing system\*, UHF transmitters from 10 kw to 220 kw, waveguide and coaxial transmission systems and components, broadcast modulators, exciters, IF correction systems, diplexing

equipment and RF components, turnkey RF installation capability. **Staff:** Richard Fiore Sr., Nat Ostroff, Stuart Kravitz, Richard Fiore Jr., Andrew Whiteside, Don Adams, Mark Altken, Ray Keisel, Bill O'Neil, John Molta, Alvin See, Mark Duclos.

#### Comex 1508 600 W. Service Rd., Suite 101, Chantilly, Va.

Communication Graphics 630 Box 54110, Tulsa, Okla. 74155

Staff: Rick Lawrence, Donna Aubright, Sandra Berkshire.

#### Comprehensive Video Supply 1145 148 Veterans Dr., Northvale, N.J. 07647

Video lighting, production music and sound effects library, microphones, power belts, battery charger, tripods, video supplies and accessories.

#### Compucon 1405D

Box 809006, Dallas 75380

Engineering services including STL paths, earth stations, ENG, LPTV. **Staff:** Becky Shipman, Mike Welch, Philip Lindsley, Scott Goldman, Rick Miller, Vince Dainotto.

#### Computer Broadcasting 624 6085 Dawen Dr., Rohnert Park, Calif. 94928

Computer Concepts 8375 Melrose Dr., Lenexa, Kan. 66214

Inhouse broadcast computer system and co-op management system, microbridge 80, rate card optimizer program. **Staff:** Greg Dean, Vicki Dean, John Clark, Donna Bush, Don Shipman, Klover Schafer, Marty Hawke, Frank Crane, Wayne Blackmon.

#### Computer Graphics Lab 1143 405 Lexington Ave., New York 10174

Broadcast animation system, image manipulation and graphic enhancement system; still-frame rendering device.

#### Comrex 400 60 Union Ave., Sudbury, Mass. 01776

Frequency extenders, ENG communications equipment, wireless microphones, talk show system.

#### Comsearch 1136

11503 Sunrise Valley Dr., Reston, Va. 22091
Systems design and engineering of satellite earth stations, point-to-point microwave systems, common carrier private, auxiliary broadcast (STL), CARS band and LPTV systems including site acquisition, frequency engineering, coordination and protection, FCC application and FAA notification form preparation, radio and facilities engineering, project management. Staff: Harry Stemple, Jim Fitzgerald, Mike Morin.

#### Comtech Data Corp. 314

350 N. Hayden Rd., Scottsdale, Ariz. 85257 TVRO receivers, 59-channel agile modulators, fixed modulators, SCPC audio receivers, digital audio receivers, satellite audio uplinks, satellite antennas. **Staff:** Allen Scharf, Glenn Higgins, Jeannine Hillier, Larry Weightman, Rick Cannon, Pres Windus, Tom Christy.

#### Com-Tek Communication Tech. 1122B 365 W. Lemel Cr., Salt Lake City 84115

#### Concept Productions 423 1224 Coloma Way, Roseville, Calif. 95678

Adult Contemporary, Contemporary Hit Radio, Album Rock, Country and MOR formats, 1984 Disneyland Radioaction telephone game. **Staff:** Dick Wagner, Mary

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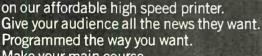
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Wagner, Rich Lee, Gary Carmichael, Sharon

Connect-Air International 1764 50 37th St., NE, Auburn, Wash. 98002 Cable assemblies. Staff: Jess Moore, Ron Jones

Connectronics Corp. 608 652 Glenbrook Rd., Stamford, Conn. 06906 Staff: Richard Chilvers, Stephen Ash.

Otis Conner Cos. 414 2829 W. Northwest Hwy., Suite 940, Dallas 75220

Staff: Otis Conner, Larry Conner, May Moseley, Steve Gustafson, Rusty Gold, Richard Guthrie, George Weathersby, Denise Conner, Jesica Conner, Linda Weathersby, Lillian Ragland, Ron Lagerlof, Les Studdard, Beurt Servaas, Corena Servaas.

600 N. Rimsdale Ave., Covina, Calif. 91722
Color and monotrome monitors. Staff: Warren O'Buch, Robert Hofer, William Ems, Gene Ornstead, Pete Portoulas, Paul Thomsen, John Kennan, Don Pickle.

Continental Electronics 101
Box 270879, Dallas 75227

AM transmitters (from 1 kw to 50 kw), FM transmitters (from 2.5 kw to 55 kw), AM and FM stereo exciters, eight- and 10-channel stereo audio consoles, phasers and other related equipment. **Staff:** J. Weldon, W. Mitchell, B. Watson, A. Vernon Collins, R. Floyd, Steve Claterbaugh, Everett King, Bob Dunkin, Paul Kittenbacher, Gene Randolph, Ken Perkins, Cliff Rogers, John Hutson, Dave Hultsman, John Abdnóur, Jim Littlejohn, Barry Ariaz, Steve Schott, Tom Cauthers, Steve Keating, Ray Tucker, Dave Chenoweth, Dave Russell.

Control Concepts Corp. 1751A 328 Water St., Box 1380, Binghamton, N.Y. 13902

Islatrol, Isafil, Islatron transient voltage suppressor. **Staff:** Oral Evans, Robert Gallaher, Herbert Montague, Robert McLoughlin.

Control Video 1157
1640 Dell Ave., Campbell, Calif. 95008
Videotape editors, automatic spot insertion equipment, synchronizers, tape code

equipment.

Convergence Corp. 1430
1641 McGaw, Irvine, Calif. 92714

Character inserter\*, video editing systems, EditDroid post production system. Staff: George Bates, Richard Moscarello, Deborah Harter, Frank Logan, Carla Denney, Leslie Tippetts, Julian Hansen, Doug Tao, Monique De Vusser, Doug Hutten, Pattie Ciccio, Richard Nelson, Charles Smith, Tom Drewke, Ken Cawley.

Cool Light 1329 5723 Auckland Ave., N. Hollywood, Calif. 91601

Cool trilite, mini Cool kits, lamps, reflectors.

Corporate Communications
Consultants
1161
4250 Veterans Memorial Hww., Holbrook. N.Y.
11741
Color correction systems.

Countryman Associates 1720 417 Stanford Ave., Redwood City, Calif. 94063

217A

Creative Trade 456 W. 55th St., New York 10019 Crest Audio 204C 150 Florence Ave., Hawthorne, N.J. 07506 35 w to 375 w power amplifiers\*. Staff: John

35 w to 375 w power amplifiers\*. **Staff:** John Lee, Wane Fuday, Carl Schwartz, John Fly, John Caporale.

CRL Audio 300

2522 W. Geneva Dr., Tempe, Ariz. 85282
AM, FM and TV audio processors including AM stereo and SCA subchannel control systems, FM stereo generator\*. Staff: Ronald Jones, Gary Clarkson, Bob Richards, Dee McVicker, Chris Dieterle.

Crosspoint Latch 1321 95 Progress St., Union, N.Y. 07083

**Staff:** Michael Molinaro, Tony Grosboll, George Cudabac, Barry Hettinger, H. George Pires.

Crown International 428 1718 W. Mishawaka Rd., Elkhan, Ind. 46517 Pressure zone microphones, broadcast amplification systems and audio test equipment. Staff: Charles Güshwa, James Beattie, Tony Šatariano, James Bumgardner, Dennis Badke.

CSI Electronics 507
18248 E. Rogers Cr., Boca Raton, Fla. 33431
AM (5 kw, 10 kw and 25 kw) and FM (3 kw and 25 kw) transmitters, phasing equipment. Staff: Bernard Gelman, Blanch Gelman, Saul Gelman, Michale Krowitz, William Hoffman, William Moats, Bruce Singleton.

CSP Inc. 44§
203 Airport Rd., Doylestown, Pa. 18901

Cubicomp Corp. 235
3165 Adeline St., Berkeley, Calif. 94703

Custom Business Systems 317
Box 67, Reedsport, Ore. 97467

Business complete computer system.

Cybernetic Data Products 1134A 208 44 Plummer St., Chatsworth, Calif. 91311

Peter Dahl Co. 4007 Fon Blvd., El Paso, Tex. 79930

HV rectifiers\*, three-phase 5 kw plate transformer, 1 and 5 kw modulation transformers and reactors, high voltage rectifiers and primary transient supressors. **Staff:** Peter Danl, Clarlce Dahl, Ozzie Jaeger, Gary Komassa.

Dalsat 1785

Box 1960, Plano, Tex. 75074

Bill Daniels Co. 1706 9101 Bond, Box 2056, Shawnee Mission, Kan. 66201

Customized equipment dealer catalogues, 1984 black books (6). **Staff:** Bill Daniels, Kathy Daniels, Vern Howard, Pat Hibbs, Patricia Braymer, Judy Pinder.

Data Communications 1014
3000 Directors Row, Memphis 38131

BUYLINE information network, BIAS newsroom management system, REPLINE products for the rep. SPOTLINE products for
the ad agency, DCC newsroom management system. Staff: Norfleet Turner, Scott
Pierce, Skip Swayer, Mike Bower, Doug Domergue, Greg Calhoun, Sarah Turnipseed,
CIndi Aeree, Michael Hunter, Bob Livingston, Marshall Clark, Randy Culpepper,
Frances Ryan, Dick Dortch, David Heckel,
Patti Ballew.

Datatek 1428
1121 Bristol Rd., Mountainside, N.J. 07092
Video and audio routing swicthers, video, audio and time code amplifiers, TV transmit-

ter color phase equalizers, and identification of source system. **Staff:** Mervyn Davles, Bob Rainey, Bob Rainey Jr., Allen Witheridge, Skip Malley.

Datatronix 1504

2100 Reston Ave., Reston, Va. 22091

Broadcast consoles, amplifiers, equalizers, faders, patch bays.

Dataworld 315 1302 18th St., NW, Suite 502, Washington 20036 Broadcast database including translators, allocations, cellular, radio contours and other FCC data. Staff: Jack Neff, Pat Gallagher, Mabel Nelson, Shirley Ostmann, Hank Brandenburg, Bob Kircher.

Datum 1708 1363 S. State College Blvd., Anaheim, Calif.

Encoders and decoders, character generators, videomagnetic tape search system.

Davis & Sanford Co. 1751 24 Pleasant St., New Rochelle, N.Y. 10802

Tripods, heads, fluid heads, dollies, monitor mounts, pedestal stands for cameras and model fluid head\*. **Staff:** E. Edward Resk, Gloria Gonye, Redi Resk.

dbx 107A
71 Chapel St., Newton, Mass. 02195
Tape noise reducers, compressor/limiters.

Delcom Corp. 163 6019 S. 66th E. Ave., Tulsa, Okla. 74145

Custom and standard system design with control room furnishings and cabinetry. Staff: Sam Pate, Patrick Quinn, Gerald Whitworth, Tom Roberts, Chris Miller, John Vavrock, Marty Brown, Jerry Koerner, Ken Clayton, Cherridah Pate.

Delta Electronics 105 5730 General Washington Dr., Alexandria, Va. 22312

AM stereo exciters and modulation monitors, RG-4 receiver/generator, and ATS option for RCS-1V remote control system.

Staff: Bob Bousman, Joseph Novak, John Wright, Charles Wright, Tom Wright, B. Shreve.

1131

455

Desisti Americas 141 Garden St., Hoboken, N.J. 07030

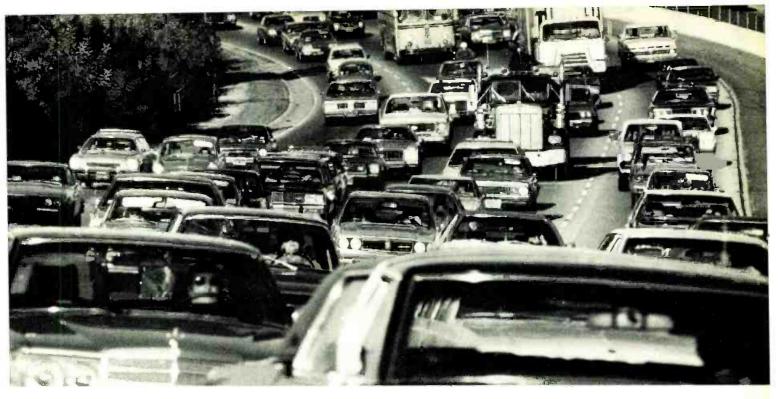
200 w CID hand held discharge light\* for use with standard 30-volt battery belts, 2500 w CID followspot\*, 200, 575 and 1200 w HMI par units with new sylvania brite beam lamps\*, 2500 w focusing open face CID discharge unit\*, 650, 1000 and 2000 studio fresnels\*, 2000 w lightweight focusing unit\*, motorized hoist/rigging system for lights and studio monitor mounting on grids\*, three-light kit case\*, 2500 w HMI softlight with ballast and accessories\*, portable lighting kits, other softlights, electrical track system, lightweight grip and mounting equipment, 500 w pinza clamplight with accessories. Staff: Mario DeSisti, Frank Marsico, Jorge Montero, Fred Costantini, Wally Mills.

De Wolfe Music Library 1734 25 W. 45th St., New York 10036

Production music library, sound effects library. Staff: Andy Jacobs, Mitchel Greenspath

Dielectric Communications
Tower Hill Rd., Raymond, Mass. 04071

FM antennas, coaxial switches, coaxial transmission line, dehydrators, RF loads,



## YOU TAKE DRIVE TIME AND LEAVE THE REST TO US

Drive time is where you make the bulk of your profits.

We know it; you know it.

So if you measure the contribution of the rest of your radio day to that of drive time, you'll come to this inevitable conclusion: you ought to be concentrating your resources where they count most.

But that may leave you with the problem of filling the rest of your broadcasting day with quality programming. How do you do it?

More and more radio executives say the answer is ABC Talkradio.

ABC Talkradio not only can fill most of your regular broadcasting day (up to 12 hours), we'll make your weekends totally listenable, too. With 9 hours of programming Saturday and Sunday.

The ABC Talkradio lineup is packed with personalities who are experienced professionals, informed, provocative, entertaining. So audiences do more than just stay tuned, they get involved, not only with the programming but also with your sponsors.

Want some examples?

Dr. Susan Forward and Michael Jackson have grown their 18+ audiences more than 63% and 70%, respectively, for KNUS-Denver in the latest rating period.

Owen Spann, Dr. Forward and Jackson have scored increases ranging from 29% to 218% for WCBM-Baltimore.

Even in a mature Talkradio market like Los Angeles, Michael Jackson and Dr. Toni Grant are increasing audiences. For KABC, Jackson increased his 25-54 women listenership by 22% and Dr. Grant increased hers by 56% in one year.

Each program host on ABC Talkradio has achieved national recognition. Each generates publicity coverage from every type of medium. So it's no wonder audiences talk about the personalities on Talkradio.

To learn more about why you should be concentrating locally on drive time and letting the stars of ABC Talkradio integrate with your local staff, talk with Rick Devlin, Vice President, Director of ABC Talkradio at (212) 887-5638.



## "Panasonic Recam made our



On Saturday mornings, children all over America are being entertained by a unique new CBS-TV series, "Benji, Zax and the Alien Prince." What makes this show unique is more than a lovable dog. It's the fact that this Mulberry Square Productions project is the first network series

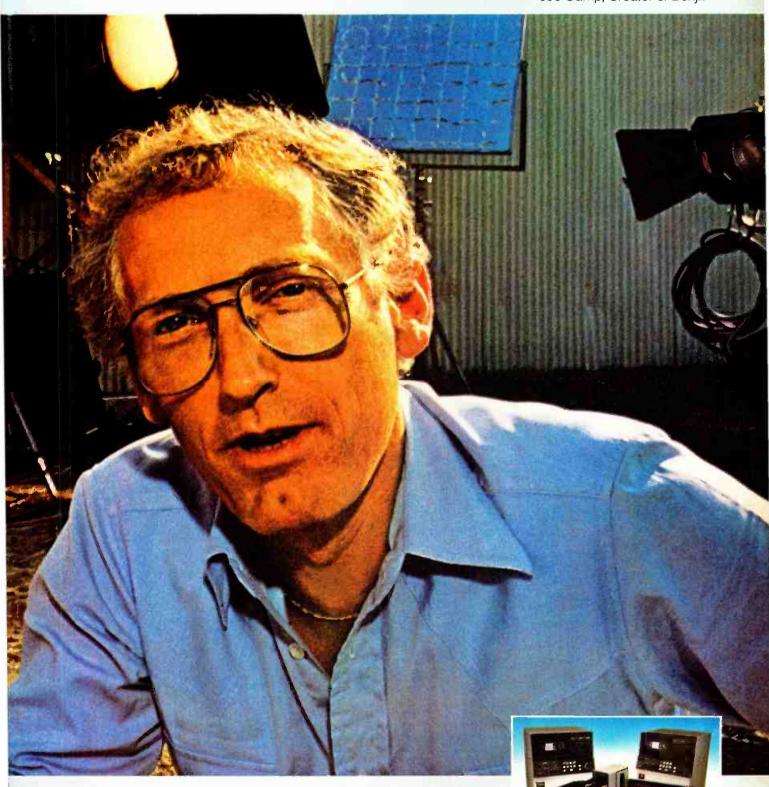
entirely shot and edited on ½-inch tape. And the system they selected was Panasonic Recam.

One of the reasons Joe Camp selected Recam is its incredible YIQ M-Format picture quality. Another reason is its portability. It makes changing scenes and locations fast and easy. And that's important on a tight production schedule.

What's more, this "Benji" production utilizes Recam's remarkable ½-inch off-line editing system, after which, each show is transferred to 1-inch for television broadcast.

Recam was also selected by ABC

## new Benji TV series possible". Joe Camp, Creator of Benji.



Sports to record their momentous ascent of Mt. Everest for "The American Sportsman." And by the producers of the epic science-fiction film "Dune" to record "The Making of Dune" for TV broadcast in 1984.

You can see "Benji, Zax and the Alien Prince" on Saturday mornings. But you can see Recam right now. Just call your nearest Panasonic regional office:

Northeast: (201) 348-7336 Midwest: (312) 981-4826 Southeast: (404) 925-6835 Southwest: (214) 258-6400 West: (714) 895-7200



#### **FUTURE WORK:** Where in the Rewired World Will Americans Find Jobs?

Martin Agronsky moderates this new segment of the provocative, critically-acclaimed series, "Rewiring Your World," which can be previewed by you for broadcast during the Orwellian year of 1984.

FUTURE WORK goes behind the grim headlines ... "Robots Make Robots"... "Computers Eliminate Jobs"... to ask some of the most vital questions of the decade. How can we survive as a nation in a world that is bewildering in its breakneck rate of change? Who is working to meet the tremendous challenge to train America's workers for future work in the Information Age if we are not to become obsolete?

FUTURE WORK is the latest edition of "Rewiring Your World," a public affairs series sponsored by the Communications Workers of America (CWA) to focus attention on issues emerging in this nation's leap from the Industrial Age to the Information Age.

Panelists include Eleanor Holmes Norton, head of the National Council on the Future of Women in the Workplace; Dr. John Gibbons, Director of Congress' Office of Technology Assessment; Bill Wiggenhorn, director of the Motorola Corporation's Training and Education Center; Edward Cornish, president of the World Future Society, and Glenn E. Watts, president of the 650,000-member Communications Workers of America.

This half-hour program is now available for television broadcast. Program directors should contact Thea Marshall, executive producer, at 1511 K Street, N.W., Suite 207, Washington, DC 20005. (202) 737-5840.

waveguides and accessories, waveguide switches, multiplexers, combiners and diplexers. Staff: J. Beville, H. Acker, S. Thomas, S. Smith, S. Dickinson, W. DeCormier, D. Manion, W. Warren, W. Holroyd, A. Pratt, L. Waterhouse

1600 Digital Entertainment Corp. 69 North St., Danbury, Conn. 06810 Digital audio recording system.

**Digital Services** 1302 3622 N.E. 4th St., Gainesville, Fla. 32601 Digital video effects, master control automa-

4980 Carrol Canyon Rd., San Diego 92121 High resolution digital converter. Staff: Hugh Gillogly, John Cambon, Sherman De-Forest, Dale Seegmiller.

**Dijor Industries** 1134B Box 2169, 37749 Second Ave., Squamish, B.C. VON RGO

Di-Tech 48 Jefryn Blvd., Deer Park, N.Y. 11729 Audio/video routing switchers, audio/video/ pulse distribution amplifiers, video equalizers, video detectors. Staff: George Petrilak, Bob Johnson, Joe Perullo, Anthony Bolle-

Dodge Data Systems 1515 Winne. Helena, Mont. 59601

Stationmate—computer software for small and medium sized radio and TV stations. Staff: Bob Fitzgerald, Steve Harper, Dick Dodge.

**Dolby Laboratories** 731 Sansome St., San Francisco 94111 Noise reduction equipment for audio and videotape recording including one-inch modules for VTR's

1311

1302

Dorrough Electronics 5221 Collier Pl., Woodland Hills, Calif. 91364 AM, AM stereo and FM audio processors\*, stereo generator\*, loudness monitor. Staff: Mike Dorrough, Kay Dorrough, Scott Stevens, Craig Kingcaid.

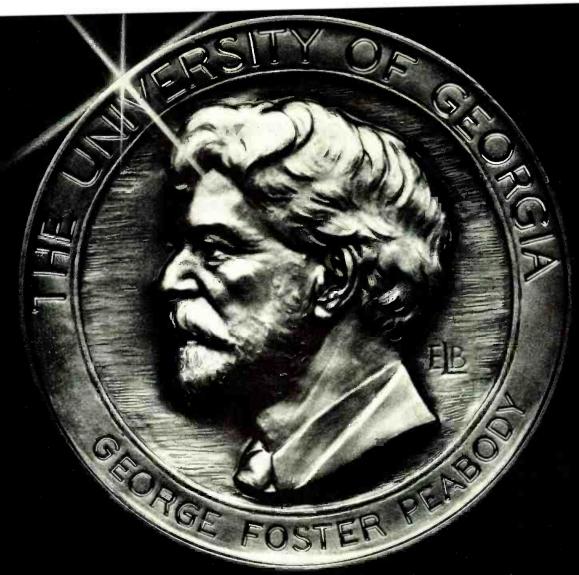
Drake-Chenault 8399 Topanga Canyon Blvd., Box 1629, Canoga Park, Calif. 91304

Consulting services for adult contemporary. contemporary hit radio, modern country, black, MOR and Nostalgia/oldies formats, plus Contempo 300, Great American Country, Supersoul, Lite Hits, Great Gold\*, Hitparade, XT-40, History of Rock & Roll\*, and Radio Free America". Staff: James Kefford. Denny Adkins, Ed Boyd, Steve Sandman, Franke Jolle, Debbie Primo, Len Boardman, Carol Holt, Chris Carrell, Paul McQuillan, Bob Laurence.

Dreamdata 1728 940 N. Orange Dr., Los Angeles 90038 Color computerized video prompter.

3622 NE 4th St., Gainesville, Fla. 32601 Digital effects system, full video manipulation unit\*, master control switcher automation, sports and elections statistical package. Staff: John Davis, James Seipp, Ann Merideth.

**Dubnar Computer Systems** 1630 158 Linwood Pl., Fort Lee, N.J. 07024 Upgrade options to CBG-2 video graphics generator\*, CCC-12 color corrector com-



## Broadcasting's most prestigious honor. The Peabody Award. To W BBM-TV.

Again. There were 730 entries. Only 29 winners. While it is a rare event to win this distinguished honor, it is rarer still to capture it two years in a row.

Yet that is what WBBM-TV has done.

This year, to Scott Craig and Michael Beatty for "Studebaker: less than they promised"... a fascinating look at an automobile that had been the heart of a town for more than a century.

Another Peabody. Another example of WBBM-TV's commitment to excellence.

## WBBM-TV CHICAGO © 2 CBS

puter. **Staff:** Gary Berger, Emily Dubner, Harvey Dubner, Steve George, Mick Ghazey, Jerry Ilowite, Stuart Lang, Ivan Maltz, Keith Thomson, Andy Cooper.

Dwight Cavendish 442 2117 Chestnut Ave., Wilmette, Ill. 60091

DX Communications 465 116 Midland Ave., Port Chester, N.Y. 10573

Dynair Electronics 1404 5275 Market St., San Diego 92114

Routing switchers, machine control, data/ control switching, distribution and switching equipment. Staff: Garry Gramman, Bob Vendeland, Bob Jacobs, Tom Meyer, Al Wison, Ed Manzo, Walt Wydro, Mike Hall, Ellie Jett, Phyllis Lynch.

Dynamic Technology 1719
Zonal House, Alliance Rd., Action, London

VTR library system:

Eastman Kodak
343 State St., Rochester, N.Y. 14650
Videotape supplier, VCR's, films, film-to-tape transfer techniques. Staff: J.D. Agin, W.A. Koch, L. F. Coleman, R.K. Schafer, J.M. McDonough, J.G. Spence, R. S. Woolman, G.D. Winter.

ECD Industries 229 2034 Armacost Ave., Los Angeles 90025

Echolab 1510
175 Bedford Rd., Burlington, Mass. 01803
Color special effects generators, audio follow video programable audio switcher'.
Staff: Ted Whittaker, Larry Baxter, Russell Whittaker, Roger Smith.

Econco Broadcast Service 1759
1318 Commerce Ave., Woodland, Calif. 95695
Rebuilt power tubes for AM, FM and TV.
Staff: Jean Baker, Bill Barkley, Dave Elliott,
Ray Shurtz, John Sullivan, John Canevari.

Multimachine computer-assisted editing system\*, IVES editing system enhancement, VITC and LTC readers and generator and complete IVES editing system. Staff: John Ludutsky, George Swetland, George Treneer, Gerald Miller, Tim Thompson, Eloy Chairez, Sam Villari.

EEG Enterprises 1155
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Vertical Interval digital transmission equipment, closed captioning and line 21 text service data recovery decoders, computers for data transmission.

The state of the s

Leddicon and vidicon camera tubes, amplifier klystrons for UHF transmitters, CCD's and CCD cameras, power tubes for AM and FM transmitters, 55 kw klystron\*. Staff: Paul Plurien, Mike Mandl, Tom Soldano, Charles Shellenberger, Walter Bielinski, Harry Kozicki, Kees Van Der Keyl, Don Rose, Ann Sayers, David Clissold, Art Ferry, Ed Sondek, Dave Farrar, Dave Willcox, Geoff Clayworth, Mike Kirk, Gary Chapman, Graeme Chalk, Peter Batey, Rick Bossert.

EG&G Electro-Optics 1327 35 Congress St., Salem, Mass, 01970 High intensity lighting equipment.

**Etcom Bauer**412
6199 Warehouse Way, Sacramento, Calif. 95286
AM/FM transmitters, audio processing

equipment. Staff: Paul Gregg, Rene Trujillo, Dick Noteman.

Electro Controls 1631C 2975 S. 300 West, Salt Lake City 84115 Studio lighting and control equipment.

Electro Impulse Laboratory 117
116 Chestnut St., Box 870. Red Bank, N.J.
07701

High power RF loads, attenuators, baluns and wattmeters. **Staff:** Thomas McNicholas.

Electro-Voice 1159 600 Cecil St., Buchanan, Mich. 49107 Microphones, mixers, audio effects de-

vices, studio monitor speakers.

Electrohome Ltd. 1744

Electrohome Ltd. 1744 809 Wellington St., North Kitchener, Ont. N2G 4J6

Video and data monitors.

Electronic Research 105A 108 Market St., Newburgh, Ind. 47630

Electronic Systems Lab 406A Box 100456, Fort Lauderdale, Fla. 33310

Elicon 143 245 Viking Ave., Brea, Calif. 92621

EMCEE Broadcast Products 1621
Box 68, White Haven, Pa. 18661

100 w UHF LPTV transmitter, 1 kw UHF amplifier, 10 w MDS transmitter, turnkey installations, tower erection and maintenance.

Emcor 429 1600 4th Ave., Rochester, Minn. 55901 Modular enclosure systems.

Emergency Alert Receiver 508
1 W. 30th St., New York 10001

SCA\*, EBS and AM-FM receivers. **Staff:** Jack Bergman, George Ipolyi, Len Feldman, Ruth Kovner.

ENG Corp. 1022 2930 Cloverdale Ave., Concord, Calif. 94502

Environmental Satellite Data 1509A 5200 Auth Rd., Suitland, Md. 20746

Color weather graphics terminals and equipment\*. **Staff:** Terry Hambrick, Ken Geremia, Terry McClain, Lorne Kenney.

ERA 161

20 E. Huron, Chicago 60611

ESE 116/1757

142 Sierra St., El Segundo, Calif. 90245
Digital clocks, timers, time code generators and readers, master clock systems, programable timers, SMPTE time code comparators\* and phone patch\*. Staff: Jerry Johnson, Bob Mayers, Bill Kaiser, Terry Williams, Lois Stroud, Jan Mayers, Diane Johnson.

Euro Equipment Services 1175 7 Tallman St., Spring Valley, N.Y. 10977

Magstand animation stand. **Staff:** C. Cattellani, P. Desposte, D. Turchen.

Eventide 323 265 W. 54th St., New York 10019

Special effects processor/digital reverb\*, time compression system, Specsystem, digital effects unit, broadcast digital audio delay and delay lines, audio digital delay line, harmonizer for audio time compression. **Staff:** Joseph Shapiro, Richard Piatt, Richard Factor, Anthony Agnello, Suzanne Langle.

Evertz Microsystems 1745 3515 Mainway, Burlington, Ont. L7M 1A9 Longitudinal and vertical interval time code generators, readers and character generators including 4900 LTC/VITC reader/VCG/translator\*, 3600D and 3700D LTC generator/reader/VCG, **Staff:** Alan Lambshead, Dieter Evertz, Shawn Carnahan, Mark Wronski, Peter McDonnell, Gary McKeon, Alan Leon.

Excalibur Industries 1106 12427 Foothill Blvd., Lake View Terrace, Calif. 91342

Standard, custom and shock absorber\* cases. Staff: John Gresch, Joe Byron, James Lee.

Farrtronics 1709
151 Bentley St., Markham, Ont. L3R 3X9
Intercom systems, pre-wired audio patch-fields, audio distribution amplifiers, audio

Feldmar Watch 1777 9000 W. Pico Blvd., Los Angeles 90035 Analog and digital stopwatches and clocks, timers and watches. Staff: Sol Meller, Elie Schlomovits. James Andres, Barney Feld-

mar.
Fenwal Inc. 196
400 Main St., Ashland, Mass. 01721

Fiberbilt 601 W. 26th St., New York 10001

Ficon 202A

232

Box 150846, Nashville 37215
Fidelipac 411

Box 808, Moorestown, N.J. 08057

Dynamax broadcast tape, reload kit, tabletop bulk tape eraser. **Staff:** Art Constantine, Dan McCloskey, Roger Thanhauser, Rosemary Jukes, Joanne Donahue, Gary Gresham, Vladimir Nikanorov.

Film House Inc. 231 700 18th Ave., South, Nashville 37203

Film/Video Equipment Service 1153 1875 S. Pearl St., Denver 80210

Portable Energy Products SLA 12120 battery pack\*, sealed lead-acid and NiCad battery packs and belts wide angle attachments for ENG lenses, continental helicopter mount. **Staff:** Dean Schneider, Jerry Schneider, Jane Swearingen, Ron Cotty

Flash Technology 1619 55 Lake St., Nashua, N.H. 03060

Tower lighting, obstruction marking for towers. **Staff:** Fred Gronberg, Lew Wetzel, Stan Kingham, Denis Buckland, Rick Sullivan.

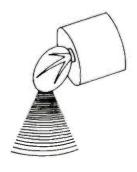
John Fluke Mfg. 227 6920 Seaway Blvd., Everett, Wash. 98206

For-A Corp. 1306
49 Lexington St., West Newton, Mass. 02165
VTW-400 character generator\*, FA-430 time base corrector and image processor\*, FA-600 and FA-650 time base correctors\*, CCS-4300 color corrector\*, DEC-1000 color decoder\*, FA-400P PAL color frame memory\*, other time base correctors, video typewriters and accessories, video writers, time code generators and readers, title keyer and color encoder.

Bret Ford Manufacturing 183 9715 Soreng Ave., Schiller Park. Ill. 60176

Ford Aerospace 1507B Ford Rd.. Bldg. 2, Rm. 38, Newport Beach, Calif. 92660

## Taft and Harris team up again... for satellite uplinks



As a pioneer in the installation of TVRO satellite earth stations, it is only natural that Taft Broadcasting is taking the lead in the use of satellite uplinks.

"A few years ago, when we decided that satellite communications was the wave of the future, we took a good, hard look at all of the TVRO equipment available," says John Owen, Taft Vice President for Television Engineering. "The Harris high-speed, positionable kingpost antenna system was the one that best fit our needs, with its ability to reposition between any two satellites in less time than a normal station break.

"We started out equipping three of our stations with Harris themselves in a year's timewith network fees and switching cost-savings contributing a majority of the payback.

"Now, with the growing opportunities in satellite uplink business, Taft has installed four Harris redundant 9-meter uplinks, all with facility control for a totally automatic approach.

"At WDAF-TV in Kansas City, we are uplinking Royals baseball. At WBRC-TV in Birmingham, it's Stallions football. And at WDCA-TV in Washington, D.C., Black Entertainment Television is transmitted six hours a day. We are also using our uplinks for news feeds to the major

networks, and we're renting time to private users for teleconferencing and other requirements. Also, we own and operate Transponder 12X on Westar V to support our satellite activities."

Taft's extensive commitment to satellite communications is just one example of the company's foresightedness and solid business sense. Its choice of Harris satellite equipment is still another.

For more information on how Harris can help you get ready for the future, contact Harris Corporation, Broadcast Transmission Division, P.O. Box 4290, Quincy, Illinois 62305. (217) 222-8200.



Forox Corp.

1620D

393 West Ave., Stamford, Conn. 06902 Videotape animation camera systems, audio display systems.

Fort Worth Tower

1010

1901 E. Loop 820S, Box 8597, Fon Worth 76112 Towers prefabricated equipment and earth stations. **Staff:** T.W. Moore, T.C. Moore, C. Moore, B. Moore.

Fortel 1409B 2985 Gateway Dr., Suite 600, Norcross, Ga. 30071

Time base correctors, synchronizers, image correction systems. **Staff:** Darryl Keeler, Ray Connelly. John Larkworthy, John Duffy, Harris Rogers, Alan Kartes, Virgil Lowe,

Kipp Kramer, Herb Johnson, Bruce Pharr, Bernie Johnson, Jorle Monk.

ostex 1765

15431 Blackburn Ave., Norwalk, Calif. 90650 Staff: Yoshlharu Abe, Fred Huang, Mark Cohen, Marla Mudd, Mary Uhle, Kim Champlin, Budd Johnson, Shinji Sugiura, A. Adachi, Sheri Trehan, Tina Cancino, Gary Watson, Nick Nuetra. Bob Hunt, Satoshi Isomoto.

#### Frezzollni Electronics

1107

7 Valley St., Hawthorne, N.J. 07506

Nickel cadmlum battery packs, chargers and AC adaptors, portable and studio lighting kits, videotape recorders, multiple battery chargers/AC adaptors and associated

hardware, soft-pattern 12-14.4 VDC mini fill lighthead\*, power charges\*, dual channel battery charger and cell conditioner\*, hitech battery packs\*. Staff: James Crawford, Jack Frezzolini, Jack Zink, Bill Birdsall, Dick Turchen.

Fuji Photo Film
350 Fifth Ave., New York 10118

S.P. Henderson.

Videotapes for mastering and duplication, head cleaners. Staff: J. Dale, T. Kobayashi, S. Bauer, A. Bedross, T. Ushijima, E. Havens, T. Daly, B. Kuczik, J. Lester, J. Walsh,

Fujinon 1411
672 White Plains Rd., Scarsdale, N.Y. 10583
Staff: H. Minoshima, Jack Dawson, Dave Waddell, Jess Kodalra, M. Ito, John Newton, Keith Tindall, T. Sumiya, John Geiger, N. Suzuki, Rob Russin, Reno Morabito, Mort Rus-

G&M Power Products 33 1130 N. Highland Ave., Los Angeles 90038

sin, Bill Kelemen, M. Kanari,

Garner Industries 1233

4200 N. 48th St., Lincoln, Neb. 68504
Bulk erasers\* for audio and videotapers.

Bulk erasers\* for audio and videotapers. Staff: Philip Mullin, Bruce Alderman, Terry Morrison, Don Becker.

GEC McMichael

Sefton Park, Bells Hills, Stoke Pages, Slough,
Berkshire, SL2 4HD

Broadcast telephone interface systems, pre-wire patch panels, mono and stereo program switchers.

General Electric 1007
Nela Park-4033, Cleveland 44112

Watt-Miser lamps\*, multi-mirror camera lights\*, other lighting equipment. Staff: Charlie Clark, Dick Dottermusch, Dan Fox, Dave Graham, Neil Kirschner, Andy Liscow, Kevin McMaster, Dick Somerfeldt.

Generic Computer Systems

Box 151, Butler, Pa. 16001

Software for traffic and billing on the Apple IIE and IBM personal computer. **Staff:** Joel Rosenblum. Dai Rosenblum.

Gentner Engineering 636 540 W. 3560 South, Salt Lake City 84115

Prewired patch panels, stranded wire punch block system\*, telephone hybrid and interface systems\*, Microtel tiny mixer for field use\*. **Staff**: Russell Gentner, Bill Gillman, Elaine Jones, Gary Smith, Chris Gentner, Ron Jones, Susan Smith, Torlna McMullin, Jim Barnes, Leslie Tipton.

Gerstenslager Co. 1347 1425 E. Bowman St., Box 390, Wooster, Ohio 44691

Mobile TV vans and trailers. **Staff**: Stanley Buczek, Allen Butts, Earl Daye, Arthur Stillo, Kenneth Vagnini.

Giese Electronic 327
Klaus-Groth-Strasse 84-86, Hamburg 26, West

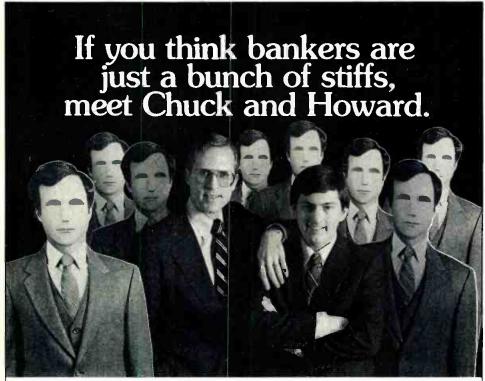
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Global Systems Corp. 1123A
15 Hale St., Haverhill, Mass. 01830

Goldnugget

Box 13 EE, San Antonio, Tex. 78201

Alan Gordon Enterprises

1430 Cahuenga Blvd., Hollywood, Calif. 90028
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tem. Staff: Grant Loucks, Robert Kuhagen, Robert Capps, Ted Lane, Tad Malone.

#### Gorman-Redlich

506

6 Curris St.. Athens. Ohio 45701
NOAA weather radios, digital AM antenna monitors. EBS encoders and decoders.
Staff: James Gorman, Judy Gorman, John Gorman, Elizabeth Gorman, Catherine Gorman, Thomas Gorman.

#### Gotham Audio

A PO

741 Washington St., New York 10014

Systex digital audio system, microphones, edit turntables and broadcast products, tape machines, loud speakers, broadcast limiters, audio and production consoles. **Staff:** Stephen Temmer, Russell Hamm, George Johnson, John Hall.

#### Graham-Patten Systems

1227

Box 1960, Grass Valley, Calif. 95945

Downstream keyer for post production, post production audio mixer, distributions amplifiers. 1235 and 1238 downstream keyers\*. Staff: Merv Graham, Mike Patten, Jim Ward, Bill Rorden, Richard Bannister, Jeanie Sick-

#### Gralan Distributors

230

1618A

Box 45134. Baton Rouge, La. 70895

Grass Valley Group 1207

Box 1114. Grass Valley, Calif. 95945

Video production systems and switchers, component video switchers, audio/video routing switchers, video distribution equipment, sync and video processing equipment, fiber optic transmission system. Staff: Harry Armstrong, Jeffrey Baron, Arthur Berne, Craig Birkmaier, Michael Bober, Les Brown, Douglas Buterbaugh, Gloria Carbone, Peter Challinger, Robert Cobler, Charles Coovert, Leonard Dole, Larry Ehnstrom, Barry Enders, Steven Hackett, Roger Hale, Edward Hobson, Karen Holt, Robert Johnson, Jay Kuca, Robert Lambdon, Richard Le Forge, David Moore, Pete Mountanos, Ronald Naumann, Thomas O'Conner, Thomas Parrish, William Powers, Keith Reynolds. Donald Schlichting, Dennis Shelton, Frank Shufelt, Louis Swift, Peter Symes, Kay Turner, Jo Ann Vander Beek, Robert Webb, Daniel Wright.

#### Gray Communications Box 3229, Albany, Ga. 31708

Supplier of video equipment to broadcast, cable and professional users, mobile production vehicles. **Staff:** Perley Eppley, Richard Schmidt, Fran Fehr, Ken Shewmake, Bill Baird

Gray Engineering Labs 1755
504 W. Chapman Ave., Orange, Calif. 92668
Staff: John Gray, Scott Gray, Phillip McFadin, Tom Clark, Lewis Reitz Jr., Jim McAtee.

#### Great American Market 110

826 N. Cole Ave., Hollywood, Calif. 90038 LZR lighting control console\*, low voltage battery-operated sequencer, fiber optic display\* and compact projector\*. Staff: Joseph Tawil, Mofid Bissada, Andrea Tawil, Nuella Armbruster, Jon Harshaw, Rolfe Tisdale, Ken Whitwright, T.J. McHose, Len Shulman, Walter Devore, Ed Gallagher, Bill McManus, Steve Lister, Keiichiro Ryu, S.

#### David Green Consultants 417

22 W. Royal St., Leesburg, Va. 22075

Equipment sales and rental, consulting services. Staff: David Green, Ashley Scarbor-

ough, Walt Lowery, Kathleen Karas, Nancylee Marshall, Sherry Kirk, Carol Baker, Gary Baker, Barbara Schneider, Bill Stacy, Ellen Scarborough, Gloria Green.

#### Gregg Laboratories 438 1542-A Moulton Pwy., Tustin, Calif. 92680

AM stereo audio processing system, audio broadcast control console, studio/telephone interface system.

Grosh Scenic Studios 1163A 4114 Sunset Blvd., Hollywood, Calif. 90029

Grumman Aerospace 1631
Mail Station C1405, Bethpage, N.Y. 11714
Machine control system, sync proc.

James Grunder & Associates 1760 2019 W. 49th Terrace, Westwood Hills, Kan. 66205

#### GTE Spacenet Corp. 1139

1700 Old Meadow Rd., McLean, Va. 22102 Transponder time. **Staff:** Michael Jeye, Susan Kalla, Gene Tamplin, Dave Schweppe, Marianne Voight.

#### Hallikainen & Friends 208A 101 Suburban Rd., San Luis Obispo, Calif. 93401

DRC190 automated multisite transmitter remote control system\*, audio mixing system for television, digital metering update kits, transmitter control computer. Staff: Harold Hallikainen, Frank Calabrese. Eric Dausman, Gerry Franke, Len Filomeo, Rick Smith, Betsy Ehrler, Donna Franke, Rita Kinnear, Bill Foote, Gerry Fortier, Mike Nolan.

#### Harris Corp. 40

Box 4290, Quincy, Ill. 62305

12-channel Medalist audio consoles\*, 60 kw UHF transmitter with new high-efficiency klystron\*, 30 kw VHF transmitter\*, 50 kw medium wave transmitter\*. TTS-4 teletext origination system\*, HVS 540 time base corrector\*, digital video effects unit\*, 632 frame sychronizer with component input\*, 2 ghz portable transmitter\* and 2 ghz and 13 ghz STL transmitter and receiver\*, AM, FM and TV transmitters, FM and TV antenna models, AM stereo generator and monitor, satellite antenna control system, computer-controlled studio camera, ENG/EFP camera, audio consoles, Autotron Star business automation system, Harris 9000 program automation, Harris 9100 intelligent remote control system, Iris II digital still-store system, frame synchronizers and time base correctors, television microwave equipment, 2, 7 and 13 ghz transmitters and receivers, Global IX portable microwave transmitter. Staff: G. Whicker, E. Jaeger, K. Schwenk, J. Delissio, E. Edwards, H. Regnier, I. Corbell, J. Smith, J. Ash, J. Barry, R. Burns, R. Fluent, E. Gagnon, D. Meier, J. Parke, B. Vaughan, R. Weirather, J. Lakin, R. Pawley.

#### Harrison Systems 1324 437 Atlas Dr., Nashville 37211

Audio mixing consoles and processing equipment, frame synchronizers, cameras, earth stations, microwave equipment, teletext systems, time base correctors, TV dlgítal still store systems.

#### HEDCO 1225

Box 1985, Grass Valley, Calif. 95945

Audio line amps, routing switchers, video switchers, video pulse amps, video and audio distribution amplifiers, video monitoring alarm module. **Staff:** Peter Hughes, Lee Frisius, Larry Arzt, Bob Grant, Maggie Fleck-

steiner, Sherri Douglas, Steve Miller, Rick Grant

#### Karl Heitz

1747

34-11 62d St., Woodside. N.Y. 11377

Fluid and counter-balanced heads for cameras, levelling balls for fluid heads for cameras, mini-microphone fishpole. **Staff:** Karl Heitz, Laval Fuller, Cliff Sawyer, Zinita Sawyer, Ken Bannister.

#### Hipotronics

1779

Rt. 22. Brewster. N.Y. 10509

Hitachi Denshi America 1402 175 Crossways Park West, Woodbury, N.Y. 11797

Broadcast cameras, recorders and playback equipment, closed circuit systems.

#### **HM Electronics**

113

6151 Fairmont Ave., San Diego 92120

Wireless microphones system\*, wall-mount speaker station\*, wireless interface belt pack\*, other wireless microphones and intercoms. **Staff:** Harry Miyahira, John Kenyon, Irene Machaj, J. Michael Hughes, Don Kutz.

#### Holaday Industries 206A

14825 Martin Dr., Eden Prairie, Minn. 55344 Isotropic broadband field strength meters\*, fiber optic link for readout of above meters. Staff: Reed Holaday.

Hotronic

1331B

1210 S. Bascom Ave.. Suite 128. San Jose, Calif. 95128

TBC/frame synchronizer.

#### Howe Audio/BCP

3085 A Bluff St., Boulder, Colo. 80301

Audio consoles\*, phase chaser, accessory equipment. **Staff:** Dave Howe, Jeff Michael Lee Edwards, Dave Orr, Rick Patterson. Mike McClain, Seldon Ridenour.

#### Hungerford & Co. 310 678 Front St. NW, Grand Rapids, Mich. 49504 Composite radio and television revenue reports. Staff: Clifford Aldrin, Richard Hungerford, George Rivin.

IBM Corp. 1607C 1133 Westchester Ave., White Plains, N.Y.

Staff: Dyrald Haag, Ben Meyerhoff, Hans Weiss, Paul Reps, Barbara Nash, Carlin Mercer, Al Armstrong, Bob Evans, Nils Thompson, Stan Stoller, Gerry Mueller, Charlie Doollittle, Rod Rockwell, Mike Wood, Tim Chunn,

#### ICM Video 176

Box 26330. Oklahoma City 73126

Video processors, video enhancers, video/ audio distribution amplifiers, satellite receivers and accessories.

#### IGM Communications 40 4041 Home Rd., Bellingham, Wash. 98226

Broadcast automation control systems, new and update instacart, go-cart services and custom service. **Staff:** Jim Wells, Nick Solberg, Carl Peterson, Jim Wolniakowski, Rick Sawyer.

1013

#### Ikegami Electronics

37 Brook Ave., Maywood, N.J. 07607

HL-95 camcorder and camera systems\*, ENG/EFP video camera system\*, high-definition studio/field camera and monitor system and electronic cinematography camera with lenses and accessories\*, ENG microwave system for cameras\*, In line gun CRT high resolution color monitors\*, auto setup telecine camera system\*, other ENG/EFP



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Image Video 700 Progress Ave., Unit 16, Scarborough, Ont. MIH 2L7

RGB and AFV routing switchers\*, master control switchers\*, passive routing switcher\*, under monitor display\*, voltage monitor, border generator downstream keyer. Staff: Andy Vanags, Frank Christo, Brian Mitchell, Bob Crowder, Bob Munzner, Gary Youngs, George Reesor, Alek Makarewicz.

**Industrial Acoustics** 

1160 Commerce Ave., Bronx, N.Y. 10462

Acoustic structures for implementing studio design and construction. Staff: Robert Buelow, John Duda, John Handley, Mike Weber, Robert Hysong, Zachary Jaquett.

Industrial Sciences 3521 SW 42d Ave., Gainesville, Fla. 32608

Audio and video distribution amplifiers\*, terminal/processing equipment, desk top controller\* Staff: Homer Masingil, Robert Bachus, Roy English, Doug Akers, Mark Peterson, John Saurenman, Tom Harmon, Steve Dietrich, Dave Stanley, Kathy English.

Inflight Services 485 Madison Ave., New York 10022 Information Transmissions

16 E. Water St., Canonsburg, Pa. 15317

Innovative Television Equipment Box 681, Woodland Hills, Calif. 91365

Staff: Bert Rosenberg, Stanton Hollingsworth, Michael Rosenberg, Mark Rosenberg, Rick Low, Bob Gallagher, Hans Ziegner, Yury Podolsky.

Inovonics

503-B Vandell Way, Campbell, Calif. 95008 Audio signal processing, recording and instrumentation equipment for broadcast and recording. Staff: James Wood, Brian Fo-

Interactive Motion Control 138 8671 Hayden Pl., Culver City, Calif. 90230

1167-71 Interactive Systems 5601 N. Broadway, Boulder, Colo. 80302

Interand 666 N. Lake Shore Dr., Suite 1100, Chicago 60611

graphics devices-Telestrators. Video Staff: Dr. Leonard Reiffel, Geoffrey Dunbar, Dr. Wayne Jung, Richard Karlin, Fred Corle, John Sarsfield, Michael Hiles, Andrea Morow, Linda Thomas-Phillips, M. Edwin Marlin, Larry DiBattista.

1790 Intercommunications

Ginza, Choku 1-13-9, Tokyo, Japan 104

1405A Interface Electronics One Studio Center, 8535 Fairhaven, San Antonio, Tex. 78229

Audio production mixer module for radio

and television, remote recording mixer for film, portable VTR and ENG. Staff: Robert Bruce, John Whipple, Nancy Bruce.

International Tapetronics 2425 S. Main St., Bloomington, Ill. 61701

Staff: Jack Hanks, Chuck Kelly, John Schaab, Bill Parfitt, Janet Schroeder, Mark Hill, Dave Montgomery, Mike Bove, Mark Wasserman, John Fesler, Cecil Henocq, Karen Ryder, Dick Lund, Gregg Paul.

Isis Electronics 337 2664 S. Santa Fe Ave., Los Angeles 90058

Itelco USA 1620 W. 32d Pl., Hialeah, Fla. 33012

JBL Inc. 615 8500 Balboa Blvd., Northridge, Calif. 91329

1338

162

Model 4411 loudspeaker system, two-way broadcast and compact studio monitor, broadcast consoles, compressor limiter, dual optiband equalizer and notch filter. Staff: Ron Means, Garry Margolis, Ken Lopez, Mark Gander, Juergen Wahl, Debra Watson.

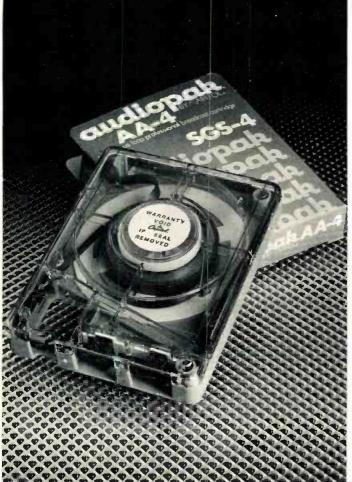
Jefferson Data Systems 1629 501 Archdale Dr., Charlotte, N.C. 28210 In-station computer system, program management system, electronic news process-

Jensen Tools 1747B 7815 S. 46th St., Phoenix 85040

Tool kits

Jingle Machine 200A 4242 S. 35th St., Arlington, Va. 22201

Johnson Electronics Box 7, Casselberry, Fla. 32707

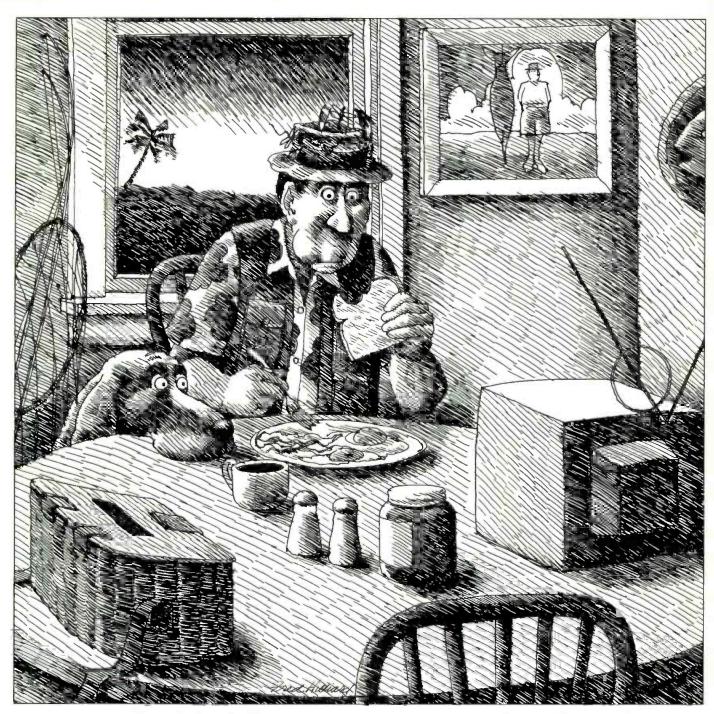


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Jones Broadcasting Systems 326
106 N. Avondale Rd., Avondale, Ga. 30002

JVC Corp. of America 1234
41 Stater Dr., Elmwood Park, N.J. 07407
KY and ProCam video cameras, tapeHandler three-quarter inch and VHS videocassette recorders, VE series edit controllers, special effects generators, monitors/
receivers and accessories. Staff: Daniel
Roberts, Michael Messerla, Gary Horstkorta, David Walton, John Brown, Steve Martin, Douglas DiGiacomo, Charles Roberts,
Logan Enright.

K&H Products 1746 Box 246, N. Bennington, Vt. 05257 (See Porta-Brace).

Kahn Communications 625 839 Stewart Ave., Garden City, N.Y. 11530 AM stereo exciter, high and low frequency extenders for remote telephone service, AM stereo receiver\*. Staff: Leonard Kahn.

Kaman Sciences 1607 1500 Garden of the Gods Rd., Colorado Springs 80933

Television and radio traffic and billing system designed and implemented on the IBM In-house system 38 minicomputer. **Staff:** Richard E.W. Smith, Ray Durrance, George Beattie, Ted Donovan, Vicki Clinebell.

Kangaroo Video Productions 1151 10845 Wheatlands Ave., Suite C, Santee, Calif. 92071

Kangāroo video pack\* carrying case, Nagra recorders\*, shoulder strap\*, padded and top loading camera cases for video cameras\*. Staff: Steve Leiserson, Lynne Domash, Steve Sickman, Joni Maussang, Sarah Carlin, Taeko Kobyashi.

Kavco 1509B 3931 Image Dr. Dayton, Ohio 45414

Audio, video, RF and communications systems, Kavcart VTR automation system, tape identification preparation center. **Staff:** Russell Johnson, Ralph Johnson Jr., Carl Raasch, David Thomas, Heinz Kapui, Don Wurst, Harold Thompson, David Borden, James Klopf, Everett Bergman, Brooke McCarter.

Kavouras 1635 6301 34th Ave., South. Minneapolis 55450 High-resolution weather graphics and animation system\*, high-resolution real-time colorization system\*, high-speed weather data transmission via Westar III\*, color weather radar remoting equipment, realtime atmospheric monitoring—meteorological services and database Triton X-graphics, animation and GOES weather satellite image processing equipment. Staff: William Schlueter, Peter Sappanos, John Traynor, Stephen Kavouras, Leroy Walker, David Schlueter, Ralph Manuel, Bill Nelson, Sarah Stewart.

Kay Industries 122 604 N. Hill St., South Bend, Ind. 46617 Rotary phase converters for radio and TV transmitters. Staff: Aaron Katz, Bertha Katz.

Keylite Productions 1220
333 S. Front St., Burbank, Calif. 91502
Lighting/grip equipment, and expendables, sales and rental. Staff: Victor Kunkel.

Kings Electronics 1623 40 Marbledale Rd., Tuckahoe, N.Y. 10707 Video patch panels, patch cords, coaxial, triaxial and camera connectors. Kliegl Bros. 1604 32-32 48th Ave., Long Island City, N.Y. 11101

Digital dimmers, command performance performer II/III and entertainer memory, lighting control systems, fresnel key, lights, scoop, backlights, cyclorama lighting units, reflector spotlight pattern projector. **Staff:** Laura Askew, Dr. Ronald Olson, Dr. Joel Rubin, John Kliegl, Tom Hays, Josephine Marquez, Peter Baselici, Patrica Ackerman, Ira Minkoff, Michael Dalzell, Michael Connell, Charles Hurth.

George Kleinknecht Inc. 1769 940 8th Ave., New York 10019

Knox Video Products 1511 8547 Grovemont Cr., Gaithersburg, Md. 20877 Character generators and video processing equipment, video correctors', color box dual colorizer/edger/keyer. Staff: Philip Edwards, Suzanne Edwards, Roland Blood, Kim Thomas.

Kobold of America 1725

Box 1, Marblehead, Mass. 01945

Kurry Inc. 223

Kutv Inc. 22 2185 S. 3600 West, Salt Lake City 84119

Laird Telemedia 1721 2424 S. 2570 West, Salt Lake City 84119 Character generators, dual channel option, multipleyer and accessories, video related

Character generators, dual channel option, multiplexer and accessories, video related equipment. **Staff:** Ron Jones, Ken Wooton, Naum Shumsky, Dave Tubbs, Ralph Lee, Tom Lang, John Perry, Chuck Harwood. Gary Bates, Dave Golding.

Lake Systems 1165
55 Chapel St., Newton, Mass. 02160
La-Kart matrix 6M for station break automation utilizing component switching and pro-

tion utilizing component switching and process through Lake matrix switcher. **Staff:** Bill Dwyer, Frank DeMayo, Walter Kelley, Phil Sills, Roland Boucher, Terrance Barnum, Robert Hemenway, James Gonsey.

Landy Associates 1747A 1890 E. Marlton Pk., Cherry Hill. N.J. 08003 Ikegami cameras, Artel fiber optics, Liebenset modular television sets, Interphase slate and border generator and machine control equipment. Staff: Jim Landy, Steven Landy, Michael Landy, Brad Reed, David Newborg. Michael Keller.

Lang Video Systems 1780 700 Warrington Ave., Redwood City, Calif. 94063

Digital video test generators and source identifiers.

**Larcan Communications** 1626A 323 D Washington Blvd., Laurel, Md. 20707 Radio and TV transmitters.

Laumic 1771 306 E. 39th St., New York 10016 Portable computer assisted videotape editing system, film-to-tape transfer system. Staff: Bill Kradelman, Stuart Mann. Karen

Carter, John Shike.

Leader Instruments 1349 380 Oser Ave., Hauppauge, N.Y. 11788 Video, audio and general purpose test instruments including vectorscopes, waveform monitors\*, NTSC sync/test generator\*,

struments including vectorscopes, waveform monitors". NTSC sync/test generator", PAL and SECAM test generators', vectorscopes and waveform monitors, oscilloscopes, frequency counters, audio generators, distortion, wow and flutter, millivolt meters, power supplies, function and RF signal generators, X-Y displays, meters and bridges. **Staff:** W. Brydia, S. Hirota, J. Mortellaro, R. Sparks, B. Storch, R. Storm, M. Iacone, J. Terry, R. Sileo.

LeBlanc & Dick Communications 1149 514 Chartwell Rd., Box 880, Oakville, Ont. L6J 5C5

Design, supply and installation of towers, antennas, transmission lines, lighting and other accessories.

Leitch Video of America 1021 835K Greenbrier Cr., Chesapeake, Va. 23320 Video processing amplifiers, digital test generators, video distribution amplifiers, scrambler system, sync generators, master clock system and clocks, frame store synchronizer\*, CTG-240 combination calibration test generator, DTG-1010 digital test signal generator, VPA-331 video processing amplifier\*, HDS-481 high definition video switcher. Staff: John Walter, Bob Lehtonen, Jim Leitch, Gary Becknell, Bernie Poulin, Don Jackson, Garry Newhook, Stan Moote, Richard Kupnicki, Paul Milazzo, Dwight Wilcox, Ron Schlameuss, Keitch Emmons, David Wilcox, Dick Strauss, Keitch Campbell, Ray Smart, Dave Craddock, Dave MacGregor, Brian Cuff, John Prigmore, Homer Hull,

Lemo U.S.A. 1334 335 Tesconi Cr., Box 6626, Santa Rosa, Calif. 95406

Electronic cylindrical connectors, audio patching connectors, triaxial TV camera connectors, stereo and monaural audio patch panels. **Staff:** Samuel Sokolik, David Battaglia, Phillip Balmer, Marlo Preston, Marcello Pesci, Georges Laurent.

Lenco 1419
300 N. Maryland St., Jackson, Mo. 63755
Video distribution, processing and test equipment, monitors, noise meters. Staff:
Andy Perrin, Ken Tiffany, Bruce Blair. Bob Henson, Andy Leonard, Gary Stephens, Roberto Orfila, Richard Fay, Jim Timberlake, Mike Birch, Ron Wells, Tony Mattia, Tom Sabiston, Milton Wyatt, Herb Van Drlel.

Lexicon 1139 60 Turner St., Waltham, Mass. 02154 1300S audio delay synchronizer\*, 1200C audio time compressor\*, reverb/effects processor, programable digital reverberator, digital delay processor. Staff: Ronald Noonan, Philip DeSantis, Keith Worlsey, Brian Zolner, Lawrence Rich, Virginia Casale.

Lightning Elimination Associates 302 12516 Lakeland Rd., Sante Fe Springs, Calif. 90670

Surge eliminators, electronic filters, other lightning elimination equipment.

Lighting Methods 182 691 St. Paul St., Rochester, N.Y. 14605

Lipsner-Smith Co. 1626 4700 Chase Ave., Lincolnwood, Ill. 60646 Film cleaning machines.

Listec Television 1406 39 Cain Dr., Plainview, N.Y. 11803

Remote digital camera control system\*, scriptWriter electronic prompter\*, camera mounting equipment, on-camera monitor prompters. **Staff:** Jack Littler, Joanne Camarda, Paulette DiBona, Cliff Guice, Paul Gomes, Rudy Zadwarny, Bill Vinten, Mike Martin, Peter Wayne, Adrian Matthews, H. Kawahara, Keith Takenaka, Jon Bart.



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Teletext origination equipment. **Staff:** Trevor Armstrong, Ray Goff, Marvin Segel.

Logitek 6
3320 Bering Dr., Houston 77057

Audio consoles\*, pro audio interface\*, power amplifiers\*, audio modules, speakers, audio processors and accessories. **Staff**: Scott Hochberg, Tag Borland, Jody Patton.

Pam Lontos Inc. 120A Box 741387, Dallas 75374

Sales motivational seminars. Staff: Pam Lontos.

Lowel-Light Manufacturing 1309 475 10th Ave.. New York 10018

Location and studio lighting equipment. **Staff:** Ray Low, Dave Tearle, Amy Carter, Marvin Seligman.

LPB 405 28 Bacton Hill Rd., Frazer, Pa. 19355

Audio consoles, distribution amplifiers, compressors/limiters, studio furniture, tone arms, AM transmitters for PSRA and PSSA service, travelers information stations and STL use. **Staff:** Richard Crompton, Harry Larkin, James Malone, Richard Burden.

LTM 1518 1160 N. Las Palmas Ave., Hollywood, Calif. 90038

HMI lighting units including fresnets, floods, softlights, spotarcs, par lights, studio and small incandescent fresnets, DC and AC in-

verter, microphones.

L-W International 1602 6416 Variel Ave., Woodland Hills, Calif. 91367 Telecine system, multiplexer system, uniplexer system. **Staff:** Marvin Hodges, Albert Malang, Dave Greve, Walter Peterson, Robert Lawrence.

Lyon Lamb Video Animation 1632A 4531 Empire Ave.. Burbank. Calif. 91505 Animation system, videodisk mastering, computer graphics. Staff: Bruce Lyon, Jeff Stone, Doug Epps.

3M 1002
3M Center Bldg.. 225-3s-05, St Paul 55144
Optical Recording Project division, Broadcasting and Related Products division, Magnetic Audio/Video Products division. Character generators, routing switchers, VTR's, videotape.

M/A-Com Video Systems 1004 63 Third Ave., Burlington, Mass. 01803 Design, build, installs and service microwave telecommunications and associated equipment including ENG central receive systems (4), ENG portable systems, intercity microwave systems, point-to-point microwave systems, fiberglass ENG antennas with interchangeable feeds, interference free ENG and fixed link fiber optic transmission systems, helicopter ENG system, transmitter/receiver. Staff: E. van der Kaay, J. Delissio, J. Morse, E. Stromsted, D. McCarthy, G. Hardy, C. Guastaferro, J. Fielek, D. Archer, J. Hellyer, J. Van, R. Briggs, P. Bradbury, L. Barzana, J. Nielsen.

Macrotel 1702 107 Delaware Ave., Suite 1400, Buffalo, N.Y. 14202

Magnasync Moviola 1147 5539 Riverion Ave., North Hollywood, Calif. 91601

V-1000, V-500, V-400, edgewriter\*, specialist voice\*, logging recorder.

Magnum Towers 119 9370 Elder Creek Rd., Sacramento, Calif. 95829

AM/FM towers, VHF/UHF TV antenna towers, microwave system support towers, communications towers. **Staff:** Pete Smith, Larry Smith, Ron Smith, Alexander Perchevitch.

The Management 627
Box T, Aledo, Tex. 76008

Super Log TV computer system\*, software\* for Sky Log, Electric Log integrated traffic, billing, accounts receivable, affidavits, avails and sales projections and sales order analysis programs, cable billing package. **Staff:** Pete Charlton, Don Stafford, Debbie Patrick.

Marcom
Box 66507, Scotts Valley, Calif. 95066
C.N. Rood BAX 114 portable modulator telephone bandwidth extention system. Staff: Martin Jackson, Ted Tripp, Doug Howland, Andy Thompson, Paul Rowan.

Marconi Electronics 1615/1609 100 Stonehurst Ct., Northvale, N.J. 07647 RF power meter\*, audio tranmission test

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system, AM FM modulation meter, insertion signal analyzer, television interval timer. **Staff:** Ken Harrison, John Robinson, Jon Gorbold.

Mark Electronics 1227 3521 SW 42d Ave., Gainesville, Fla. 32602

Marketing Services Development 66
1111 Paulison Ave., Clifton, N.J. 07013

Marshall Electronics 1331
Box 2027, Culver City, Calif. 90230

Staff: Leonard Marshall, Henry Shultz, Bill Cara, Joel Schwartz, Bob Sherwood, Dave Roberts.

Marti Electronics

501

Box 661. Cleburne, Tex. 76031

Automatic transmitter switchers, aural STL, base station, watt telemetry return links, aircraft power supply, automatic repeater, battery powered remote transmitter, aircraft RPU transmitter. **Staff:** George Marti, M.E. McClanahan, Rick Neace, Steve Jones, Charles Wells.

Matthews Studio Equipment 1209 2405 Empire Ave., Burbank, Calif. 91504

C-boom clamp\*, expendable reflectors and brackets\*, ped-a-mote control\*, stage stands\*, kit stand new track lengths\*, tulip cranes, sky cam and cam remote heads, dollies and track, cine-vators, crank-o-vators, aluminum and stainless steel stands, diffusion and lighting control, grip and mounting equipment. Staff: Ed Phillips, Carlos DeMattos, Button Fox, Fred Farish, Bob Nettmann, Loet Farkas, Alex Torres, Rick Hansen.

Maxell Corp. 1 60 Oxford Dr., Moonachie, N.J. 07074

Blank audio and videotape. **Staff:** Jim Ringwood, Joe Birskovich, John Selvaggio, Joe Santangelo, Dan Maida, Jeff Moreland, Pat Byrne, Kathy Frey, Linda Healy, Chris Mangiapane, T. Okada, H. Matsumoto.

BI/AHB 148

5 Connair Rd., Orange, Conn. 06477

McCurdy Radio

1051 Clinton St., Buffalo, N.Y. 14206
Audio consoles, switchers\*, DAs, intercoms\*. Staff: Paul Hudson, Sudy Shen, Murray Porteous, Jon Young, Bob Lefroy,

Radvanyi, Ernie Moldowan, Marc Vallee.

McMartin Industries 701

4500 S. 76th St., Omaha 68127

Erik Ryalen, Ed Fritz, Rick Jalsavec, Les

Communi-Quik network offering five simultaneos subchannel services from FM station, TVR-2 SCA receiver\*, TV stereo monitoring system\*, BTL-10 FM translator, PS-1K and PS-5K power reducers for daytimers\*, BF-400 400 w FM transmitter\*, BF-30M 30 kw FM transmitter\*, plus other AM and FM transmitters, FM/SCA equipment, audio consoles, satellite/microwave products, SCA systems. Staff: Ray McMartin, Jay McMartin, Kathy Knott Ocasio, Ted Henkenlus, Charlie Goodrich, Bill Turney, Lou Burke, Carol Mayer.

MCG Electronics

167

12 Burt Dr. Deer Park, N.Y. 11729

MCI/Quantel 1631 3290 W. Bayshore Rd., Palo Alto, Calif. 94303 Digital video products, special effects systems, synchronizers, graphics systems, Cypher\* character generator, library systems. Staff: George Grasso, Dave Dever, Larry Belhl, Chuck Martin, Paul Fletcher, Tom

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MCI/Sony 605

15 Esses Rd., Paramus. N.J. 07652

Meadowlands Communications 110 23-47 Ames Blvd., Hamburg, N.J. 07419

Media General Broadcast Services 410 2714 Union Exid., Memphis, Tenn. 38112

TIME World News Service\*, ID's libraries, commercial productions. Staff: Jim Linen, Don Robinson, Zack Hernandez, Gordon Buckingham, Kurt Alexander, Bob Blow, David Tyler, Carl Reynolds, Dick Denham, Bob Westlake, Ken Theiss, Dannie Hill, Bill Laffey, Bob Stack, John Hagerman.

Media Software Systems 622 4910 Dudley St., Lincoln, Neb. 68504

Merlin Engineering 1023 1880 Embarcadero Rd., Palo Alto, Calif. 94303 VTR's and accessories, engineering services for VTR's.

MICMIX Audio Products 106A 2995 Ladybird Ln., Dallas 75220

Dynafex noise reduction system\* (DX-2), master room reverberation systems modular signal processing systems. **Staff:** Bill Allen, David Rettig, Bob Rodgers, Barbara Rettig, Linda Allen.

Micro Communications 1014 Box 4365, Manchester, N.H. 03101

High power UHF lineside RF systems, circular and rectangular waveguide transmission line, low power UHF and VHF diplexers, MDS/ITFS diplexer and multichannel comblner\*, coaxial switches, microwave point-to-point antenna with interchangeable 2, 7 and 13 ghz feeds, LPTV antenna and microwave interferometer, phase shifting combiner and diplexer\*. Staff: Thomas Vaughan, William Amos, Howard Bouldry, Linda Bruning, Dennis Heymans, Thomas Greenway.

Micro Controls 104 Box 728. Burleson, Tex. 76028

Microwave wideband and narrowband STL\*, remote control microwave or phoneline, heterodyne FM exciter, AM stereo STL, automatic switching units for studio or transmitter, SCA generators, receivers and paging systems, STL repeater systems, pulse laser communications. Staff: Jeff Freeman Jr., J.E. Freeman III, Bob Hite, Bob Richards, Tom Butler, Tom Butler Jr.

Microdyne 1612 Box 7213, Ocala, Fla. 32672

Satellite transmission and receiving equipment including the 1100 BDC/DCR-12 Kuband system, 1100 SDC synthesized SCPC downconverter, C-band and Ku-band antennas (3, 3.66, 5 and 7 meter). **Staff:** Dave Alvarez, Earl Currier, Jim Grabenstein, Tom Kidd, Brett Swigert, Diane Glansante, Bob Voss, Jerry Throne, Mike Balbus.

Micron Audio Products 1122C 210 Westlake Dr., Valhalla, N.Y. 10595

Wireless microphone systems, portable systems for ENG use, hand-held transmitter, portable diversity receiver, modular multichannel space diversity receiver, camera mount. **Staff**: Paul Tepper, John Wykes, Linda Tepper.

Microprobe Electronics 221 910 Sherwood Dr., Suite 19, Lake Bluff, Ill. 60044 Microtime 1230

1280 Blue Hills Ave., Bloomfield, Conn. 06002 Digital video and video processing equipment including synchronizers, image enhancers, time base correctors.

Midwest 1710

One Sperti Dr., Edgewood, Ky. 41017

Mobile television productions units including ENG van, EFP unit and broadcast remote unit.

Mini-TP 1134 3250 Wilshire Blvd., Los Angeles 90010

Minolta 1113

101 Williams Dr., Ramsey, N.J. 07446

Audio distribution and switching equipment, amplifiers, switcher crosspoint cards, VCA modules, oscillators, equalizers, compressor/limiters, pre-wired jackfields and patch cords, newsroom dubbing and switching units.

Mitchell Camera Corp. 224
11630 Tuxford St., Sun Valley, Calif. 91352

Mitomo Co. 1509 8-11 1-Chome, Jinnan, Tokyo 150

Modular Devices 325

50 Orville Dr., Bohemia, N.Y. 11716

Modulation Sciences 204B 115 Myrtle Ave., Brooklyn, N.Y. 11201

Mole-Richardson 1006 937 N. Sycamore Ave., Hollywood, Calif. 90038 Lighting equipment including Solarspots, risers, fixtures, kits, grip equipment, hangers and adapters.

Keith Monks Audio 132 Box 1069, Palatine, Ill. 60078

Montage Computer Corp. 1775
52 Domino Dr., West Concord, Mass. 01742
Montage picture processor.

Moseley Associates 301
111 Castilian Dr., Goleta, Calif. 93117

PCL-606/C composite studio-transmitter link in the 1.7 ghz band for Canadian AM stereo\*, CRT and logger options for MRC-1600 remote control system\*, other remote control system and studio-transmitter links, subcarrier generator and demodulator, stereo generator and demodulator, Staff: John Moseley, Fred Zimmermann, Chuck Rockhill, Kin Jones, Weldon Squyres, Dave Chancey, Jim Jones, Vince Mercadante, Darl Dumont, Dan Barnett, Don Sharpe, Glenn Sanderson, Bruce Tarr, Sharon Katayama, Liz Atesman.

Motorola Communications 309 1301 A. Algonquin Rd., Schaumburg, Ill. 60196 AM stereo system, portable radio communications products.

MPCS Video Industries
514 W. 57th St., New York 10019

Full-service video organization representing major manufacturers and suppliers. Staff: Alan Neil, Wally Robbins, Jeff Steier, Paul Wilson, Marvin Charyn, Max Meyerson, Mike Assal, Jody Lotito, Nancy Dall, Frank Suarez, Ken Seelig, Henry Bernstein, Bill Jarrett.

Multi-Track Magnetics 1712 3 Industrial Ave., Upper Saddle River, N.J. 07458

Ultra high speed recorders and reproducers microprocessor controlled DC servo drive and torque motors for film speeds up to 30 times, Transfer Mate II recorder.

Music Director
Programing Service 709
Box 103, Indian Orchard, Mass. 01151

Music testing research\*, country music supply service\*, pop, country and oldies libraries, Christmas programing package, A/C playlist and music supply service. **Staff:** Budd Clain, Dick Garde, Brenda Clain, Noreen Bennett.

Musicworks 209

Box 111390, Nashville 37211

Ralph Emery Show\*, Jim Reeves Radio Special\*, Alive Country, Casual Country, Country 80, Pop Adult Lifestyle. **Staff:** Bill Robinson, Skeeter Dodd, Jeff Miller, Dean Landsman, Gary Havens, Tom Perryman.

Mycro-Tek 1752 820 W. Second, Wichita, Kan. 67203

Character generators.

MZB & Associates 1507A 4203 Beltway, Dallas 75234

Mobile television vehicles. **Staff:** John Zienkosky, Dick Bock, Rich Hajdu, Herb Hoff, Danny Dyess, Tom Hooper, Ralph Miller, Don Ingalsbe.

Nady Systems 1133 1145 65th St., Oakland, Calif. 94608

Cordless microphones, communications systems and intercom systems; mini-receiver/cordless microphone system for video cameras\*. **Staff:** Peter Kalman, John Nady, Royce Krilanovich.

Nagra Magnetic Recorders 1213 19 W. 44th St., New York 11036

Portable and miniature recorders, T-audio recorder, synchronizers. **Staff:** Dom Notto, Manfred Klemme, Gerry Kearns, Tom Daniel, Dan Grimmes, Pierre Chan.

Nalpak Video Sales 3928 S. Sepulveda Blvd., Culver City, Calif. 90230

Tripak plastic tripod shipping/carrying case, Ata case for video production equipment, field and studio test charts, travel karts. **Staff:** Bob Kaplan, Debra Kaplan, Chuck Ehrman, Jack Eddy, Stanley Singer, Dennis Vance.

Nautef Maine 216 201 Target Industrial Cr., Bangor, Me. 04401 AM broadcast transmitters. Staff: Dave Grace, Wendell Lonergan.

NEC America
130 Manin Ln., Elk Grove Village, Ill. 60304
AS-18 audio synchronizer\*, FBN-9000 FM transmitter, commercial message bank, digital video effects system, digital video multiplex, CCD camera, frame synchronizer, 7 ghz microwave. Staff: Jeffrey White, Robert Curwin, Richard Dienhart, Larry Litchfield, Frank Stolten, M. Imai, M. Mitsui, T. Fujiyasu, M. Mitsui, Macolm Burleson.

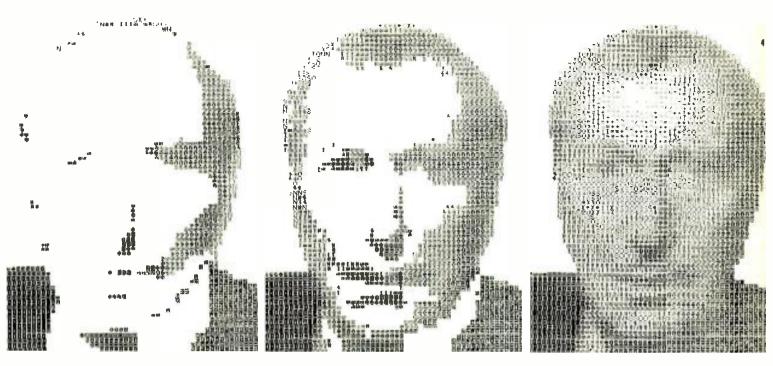
Network Productions Music 1138 4429 Morena Blvd., San Diego 92117 Music production library

Net-Com International 1516 1702 Union St., San Francisco 94123

New York Communications 1730A 101 Bryn Mawr Ave., Bryn Mawr, Pa. 19010

Nortronics 705 8101 10th Ave., Minneapolis 55427 Replacement magnetic heads, mainte-

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20 Tower Ln., Avon, Conn. 06001

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1680 N. Vine St., Los Angeles 90028

Digital audio store\*, digital video still/store. Staff: Tsuneo Mikado, S. Nakayama, S. Murakami, S. Okamoto, S. Aoyama, G. Nakaki.

Nurad 1426 2165 Druid Park Dr., Baltimore 21211

Airborne ENG system with Loran\*, 10 w 7ghz amplifier\*, 13 ghz portable transmitters and receivers\*, 6.5 ghz systems\*, Linearly polarized antennas\*, central receiver antenna systems, remote transmit antenna systems, STL/ICR systems and ITFS systems. Staff: J. Gordon Neuberth, David Fairley, Vincent Rocco, Fred Hock, Stephen Neuberth, Eric McCulley, Cheryl Jacobs, Lisa Czirjak.

Nytone Electronics 1135 2424 S. 900 West, Salt Lake City 84119

Flying spot scanner systems

OKI Electric Overseas

1

I University Pl., Hackensack, N.J. 07601

TV standards converter. Staff: H. Uehara.
Tomoda

Olesen
1535 Ivar Ave., Hollywood, Calif. 90028
Fabrication of studios for the industrial user, pipe grids, curtain tracks, curtains and drapes, lighting, dimming, distribution.
Staff: Bob Downs, Terry Collopy, Rae Medvitz, Steve Brown, John Canton, Stew Romans, Ted Conroy, Barney Klein.

Omicron Video 174

22251 Roscoe Blvd., Canoga Park, Calif. 91304
Distribution amplifiers, sync generators, routing switchers, editing systems, synchronizers, time code generators. Staff: Kimi Akiyama, Mio Akiyama, D. Cadora, M. Honda.

Orban Associates 6

645 Bryant St., San Francisco 94107 412A/414A mono and stereo compressor/

412A/414A mono and stereo compressor/ limiter\*, programable parametric equalizer\*. **Staff:** Bob Orban, John Delantoni, Jesse Maxenchs, Sid Goldstein, David Dunetz, Bob Burkhardt, Kevinn Tam, Dave Shantz.

J. Osawa & Co.
Shibaura 4-2-8, Minatoku, Tokyo 108

Otari Corp. 601 2 David Dr., Belmont, Calif. 94002

Multichannel open-reel audio tape recorders\*, EC-400 series tape speed resolvers\*, duplicators and reproducers, videotape loading equipment, disk drives. **Staff:** John Carey, David Roudebush, Jack Soma, Mike Pappas, Steve Krampf, Steve Hill, Jeff Phillips, Phil Sun, Barry Ross, Michael Bernard, Scott Heineman, Larry Good, Tom Defigho, Tom Sharples, Kae Wiley.

O'Connor Engineering 1103 100 Kalmus Dr., Costa Mesa, Calif. 92626 Camera support systems.

Pacific Recorders & Engineering 113 2070 Las Palmas Dr., Carlsbad, Calif. 92008 Audio production consoles\*, cartridge recorders, studio systems, distribution amplifiers, turnkey systems, studio furniture. Staff: Jack Williams, Larry Zaiser, Mike Uhl, Sandy Berenics, Bonnie Smith, Gary Stigall, Robin Thomas.

Paltex 100

2942 Dow Ave., Tustin, Calif. 92680

Vanguard and edit-star videotape editing system. Staff: R. Bailey, J. Horning, T. Greaves, D. Curtain, J. Schoen, R. Smith, F. Blaha, T. Belford, J. Wagner, S. Pogoda, W. Frantz, B. Soto, D. Sorenson.

Panasonic 437/1019
I Panasonic Way, Secaucus, N.J. 07094

In camera recorders, camera kits, low capacitance diode gun plumbicon tubes, saticon tubes, editing systems, editing controllers, high resolution monitors.

Patch Bay Designation 1773 Box 6278, Glendale, Calif. 91205

Labeling for rear lighted switches. **Staff:** Scott Lookholder, Charles Schufer, Dale Lookholder, Ted Lookholder.

Peerless Sales
1950 Hawthorne Ave., Melrose Park, Ill. 60160
TV/AV/VCR/cable accessory products including security hardware, stands, mounts, carts and brackets for desk, wall ceiling.
Staff: Walter Griffing.

Penny & Giles 436 1640 Fifth St., Suite 224, Santa Monica, Calif.

Faders. Staff: Gay Moses, Bob Rose, David McClain, Chris Thomson.

EP 1408

25 W. 54th St., New York 10019

Perrott Engineering Labs 1729 7201 Lee Hwy., Falls Church, Va. 22046

Nickel cadmium and silver zinc battery packs for ENG and EFP equipment, minichargers series for portable packs, single or sequential ni-cad fast chargers, battery packs for VTR's, video analyzers, ENG and EFP lighting systems, service and rebuild batteries and chargers for ENG and EFP equipment, design and engineer equipment for special requirements. **Staff:** V. Perrott Tygesen, William Mallon, Robert Clutter, William Aylor, Lawrence Westhaver, Joseph Nigro, Douglas Sheer, Al Audick.

Philadelphia Resins 126 20 Commerce Dr., Box 454, Montgomeryville, Pa. 18936

High performance tower guys. Staff: W. Wynne Wister, Kenneth Knight.

Philips Television Systems 1500A 900 Corporate Dr., Mahwah, N.J. 07430

LDK 26 studio camera\*, LDK-614 portable camera\*, LDK-6 studio and field camera, LDK 54 camera recorder system\*, 14 and 20 inch color monitor, LDM 1208 55 kw transmitter, 100 w to 20 kw FM transmitters, high definition television technology, digital compact disks, optical disk mastering. Staff: James Wilson, Warren Anderson, Alan Keil, Nicholas LaBate, Robert Blair, John Giove, Jeffrey Clarine, Michael Hartt, Michael Mackin. Bob Mahoney. William Sturcke Jr.

Philips Test &

Measuring Instruments 1408A 85 McKee Dr., Mahwah, N.J. 07430

Color generators, sync test generator, TV test modulator, color generator multipattern, teletext test generator, studio V ITS generator, TV modulator. **Staff:** Ken Wheeler, Robert Joseph, Leonard Milchuk, John Stanley,

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2800 Third St., San Francisco 94107
Ultra family followspot lighting\*. Staff: John Tedesco. Laura Krum.

Phoenix Systems 609

4685 S. Highland Dr., Salt Lake City 84117
Computerized broadcast management system, traffic/billing, full financials, IBM PC version of Phoenix broadcast system'.
Staff: M. Ned Briner, Randal Chase, Bradford Melis, Gregory Chachas, Don Beard, Rae Dean McEun.

Picture Element 1517B 635 Waverly St., Palo Alto, Calif. 94301

Video sequence processor.

Piher Electronica 1409B

Piher Electronica Albala, 12, Madrid 17

Box 947, N. Miami Beach, Fla. 33160

Color character generators, professional color and B/W monitors, transposers, transmitters, color sync generators, video, audio and pulse distribution amplifiers, video switcher, mobile units. Staff: Antonio Diaz-Borja, Mario Castellanos, Jesus Martin, Enrique Bermudez, Arnaldo Gonzalez, Gaspar Sastre, Antonio Rodriguez, Jose-Manuel Albiste, Dalmacio Tola, Alfonso Saiz, Alfonso Castellon, Manuel Martin, Jesus Diaz, Manuel Lopez, Carlos Xifra, Santiago Mendioroz, Alicia Seyler, Carlos Yhama,

Pinzone Communication

Products 1615, 10142 Fairmont Rd., Newbury, Ohio 44065

Plastic Reel 170

240 W. 60th St., New York 10023

Polar Research 511

Pennington Ave., Thief River Falls, Minn. 56701

Porta-Pattern 1427

750 N. Highland Ave., Los Angeles 90038

Test charts and systems, telecine test slides and films, spherical transparency illuminators and transparencies and associated optical test media, BBC zone plate charts. Staff: Ed Ries, Ed Taylor Jr., Anne Summers-Ries, Elena Sherk, Dorel Cojan, Tony Reves C. Webster

Potomac Instruments 100 932 Philadelphia Ave., Silver Spring, Md. 20910

Staff: Guy Berry, Bill Casson. Bob Ellenberger, Dave Harry.

Precision Echo 1617

3105 Patrick Henry Dr., Santa Clara, Calif. 95054

Video disk frame store animation recorder/ reproducer system, video compression system, videodisk recorder\*. Staff: Jim Crouch, Kathie Farkas, Steve Goze, Tom Parkinson, Jackie Streeter, Bob Werbicki, Ron Zimbrick, Barry Rubin.

Prismagraphics 110A

Box 703, Milwaukee 53201

Procart 11:

7012 27th St., W., Tacoma, Wash. 98466
Tape cartridges. Staff: Tim Schwieger, Don Kalmokoff, Bernice McCullough, Irv Law

Procommotion 434 350 W. Green Tree Rd., Milwaukee 53217

Money Chamber promotional item

Products International 1125 8931 Brookville Rd., Silver Spring, Md. 20910 Equipment, tools supplies for electronic printed circuit board maintenance and repair. **Staff:** Daniel Schoen, Corey Parry, Kathleen Schoen.

QEI Corp. 307

Box D, Williamstown, N.J. 08094

FM transmitters (25 kw\*) and exciters\*, stereo generators, monitors and test equipment. **Staff:** Charles Haubrich, William Hoelzel III, John Pilman, John Tiedeck.

**QSC Audio Products**626
1926 Placentia Ave.. Costa Mesa, Calif. 92627
Audio power amplifiers.

QSI Systems 1325 12 Linscott Rd., Box 2176, Woburn, Mass. 01888

Color bar generators\*, video source identifiers, master clocking systems, video and pulse distribution amplifiers. 24-hour TV loggers. demod tuners, countdown generators, numerical video slates, routing switcher input identifiers. Staff: Alfred Smilgis. Richard Smilgis. Charles Ricciardi, Richard Sanford, Paul Coughlin, Dr. Frank Erculei, Mark Erulei, Leo Rymerz, Mike Dyer, Glen Dash, William Hickey, John Martin, Joanne Beichler.

**Q/TV/Telesync** 1401-D 33 W. 60th St., New York 10023

VPS-500 computerprompter systems\*, videoprompter system, mini Q prompter. Staff: George Andros, John Maffe, Hy Sheft, Al Eisenberg.

**Quad-Eight Electronics** 1636 11929 Vose St., N. Hollywood, Calif. 91605 Digital reverberation system, audio con-

Quanta Corp. 1432 2440 S. Progress Dr., Salt Lake City 84119

Quante Corp. 1216A 3350 Scott Blvd., Bldg. 15, Santa Clara, Calif.

Fiber optics transmission equipment\*. Staff; J. Hawkins, G. Vrignaud, A. Gaytan, A. Yan.

Quantum Audio Labs 509A
1909 Riverside Dr., Glendale, Calif. 91201
Production consoles.

**Quickscan Systems** 1405B 9465 Wilshire Blvd., Beverly Hills, Calif. 90212

**Quickset**3650 Woodhead Dr., Northbrook, III. 60062
Instrument positioning equipment. **Staff:**Mark Stolman, John Andre, Paul Mooney,
Dennis Ryan.

RAB 217

485 Lexington Ave., New York 10017

Radac Marketing 218 804 Main, Trenton, Mo. 64683

Radio Arts
210 N. Pass, Suite 104, Burbank, Calif. 91505
Radio formats—American Rock, Sound 10,
Soft Contemporary, The Entertainers, Country's Best, Encore; plus The Dream Concert,
Ray Anthony's History of the Big Bands,
Johnny Mercer: The Man and His Music,
Your Hit Parade, Billboard Honor Roll of Hits,
Holiday Spirit (240), Light of My Life. Staff:
John Benedict, Dave Price, Clair Marlo.

Radio Systems 213

Box 356, Edgemont, Pa. 19028

Mary Perkins.

Phono preamps, distribution amplifiers, stu-

dio timer, ESA-10 broadcast console. **Staff:**Daniel Braverman. Neil Glassman, Andy
Lovell Edward Corse

Ramko Research 415 11355A Folsom Blvd., Rancho Cordova, Calif. 95670

Four-channel portable mixer with built-in intercom\*, distribution amps, audio routers, broadcast consoles, phasemaster cart machines, audio mixers, mic/line amps, line equalizers, solid state meters, compressor noisegates, power amps. **Staff:** Ray Kohfeld, Jim Lucy, Leonard Dont, Ted Johansen, Anita Edwards, Jim Nichols, Dave Baldwin.

Rank Cintel 1219

Watton Rd., Ware, Heerts, England

ADS 1 telecine for broadcasting from film\*, Mk IIIC telecine for film-to-tape transfers, FeRRIT separate magnetic sound-follower. Staff: J. Etheridge, C. Waldron, A. McIlwaine, M. Batsch, I. Glenn, K. Taylor, J. Rodgers, T. Mead, K. Clark, M. Griffiths, B. Townsend, J. Campbell, D. Fenton, N. Kempt, D. Corbitt, G. Collett, W. Capon, F. Bundesmann, K. Sadhvani, E. Goodwin, Y. Yu, P. Chapman.

RCA Americom 1000 400 College Rd., Princeton, N.J. 08540

Digital audio transmission service via satellite for radio networking and TV channel service for broadcasters, syndicators and videoconferencing. **Staff**: J. Tietjen, E. Murphy, A. Schmitt, J. Williamson, G. Lewis, J. Grady, J. Thiesing, L. Donato, R. Boyland, H. Rice, G. Kaplan, D. Reinert, W. Berman, D. Cornell, B. Lazarus, J. Christopher.

RCA Broadcast Systems 1000 Box 900, Gibbsboro, N.J. 08026

**Staff:** J. Volpe, D. Woywood, J. Gimbel, K. Johnson, K. Gee, R. Abbenante, J. Ayers, B. Culbertson, T. Newman, K. Pierce, R. Walsh, H. Magno.

RCA New Products Division/ Tube Operations 1000

New Holland Ave., Lancaster, Pa. 17604
Lead oxide Vistacons, Saticons and Vidicon camera tubes, VHF power tubes from 5-50 kw, FM tubes for 5-50 kw and 1 kw UHF tube and cavity for low power TV and translator service, tape of charged coupled device technology. Staff: George Brody, Erich Burlefinger, R. Davis, Gene Dymacek, Jerry Grill, Pete Koustas, John Malan, Bob Mazeski, F. Nelles, Bob Neuhauser, Jack Nicholson, C. Rintz, Jerry Ryan, Dick Savoye, B. Scott.

R-Columbia Products 1111 2008 St. Johns Ave., Highland Park, Ill. 60035

FM wireless intercom headphone, sports and studio broadcasting headphone, remote powered intercom headphone, hands free telephone operation.

Reach Inc. 34

301 S. 68th St., Lincoln, Neb. 68510

Message and storage retrieval services using SCA's. **Staff:** Jon Canaday, Lynette Green, Don Naber, Mark Mitchell, Joe Shaya, David Caragher, Bob Charmichael, Doug Schreckengost, Jim Graf.

Real World Tech. 1520 3176 Pullman St., Suite 106, Costa Mesa, Calif.

Recortec 141 475 Ellis St., Mountain View, Calif. 94043

Videotape evaluators. **Staff:** Lester Lee, Eldon Corl, Edwin Wong, Ed Bloom.



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 Box 1246, Perry, Ga. 31069
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 152

2 Bluejay Way, Woodside, Calif. 94062

Reiman Syndication Network 172 5400 S. 60th, Greendale, Wis. 53/29

Research Technology 1626 4700 Chase Ave., Lincolnwood, Ill. 60646 Videotape evaluator/cleaners, digital film editing and cleaning equipment.

Restoration 705 15904 Strathern St., Van Nuys, Calif. 91406 Replacement heads for audio and video recorders

RF Technology 171
145 Woodward Ave., S. Norwalk, Conn. 06854
Staff: Pat Bradbury, Jack Fackler, Chuck
Bobbins, Kristi Irish, John Clifford, Drew
Lance, Ian Aizlewood.

Richardson Electronics 212
Box 424, Franklin Park, Ill, 60131

Electron tubes, RF power transistors and amplifiers, power semiconductors, silicon controlled rectifiers. **Staff:** Ian Stewart, Jim Matzas, Richard Thomas, David Gilden.

Riviera Broadcast Leasing 1784 220 Avenue 1, Redondo Beach, Calif. 90277

Rockwell Int. (Collins div.) 1767 400 Collins Rd., NE, Cedar Rapids, Iowa 52498 Collins doppler weather radar\*. Staff: John Giordano, Gary Frederick, Bryan Hawkins, Ron McGraw, Butch Postel, Ed Mumford, Dean Huntsinger.

Roh Corp. 1634

3603 Clearview Pl., NE, Atlanta 30340 Intercom/PL and IFB systems, digital announcement systems. **Staff:** Jerry Levy, Jerry Huber, Dan Garrigan, Frank Harvey, Tammy Smith.

Rohde & Schwarz 1203 13 Nevada Dr., Lake Success, N.Y. 11042

TV data distortion meter for videotext signals\*, video noise meters, precision demodulator\*, delay measuring system\*, video test signal generator\*, mobile compact test setup for checking and aligning TV transmitters and transponders. **Staff:** Joel Hymowitz, J. Schindler, E. Kushner, R. Goebel, R. Quitt, L. Estin, C. Porzky, M. Miczek.

Rosco Laboratories 1235
36 Bush Ave., Port Chester, N.Y. 10573

Roscor Corp. 1181 6160 W. Oakton St., Monon Grove, Ill. 60053 Design, engineering, fabrication and installation of custom turnkey video and audio systems and mobile units, Ikegami EC-35 electronic cinematography camera, miniram ENG unit and TV-20 mobile production unit, and engineered video rentals. Staff: Phillip Roston, Paul Roston, Steven Detch, Lee Ruber, Jim Pianowski, Howard Ellman, Steve Robinson, Jerry Garber, Steve Kozola, Andy Turner, Craig Kohler, Jon Ulfsrud, Yves Souvenir.

Ross American Logic Systems 1332 20540 Unit D, Superior St., Chatsworth, Calif. 91311 Electronics lighting displays and control systems.

Ross Video 11110 9 Plaza Dr., Iroquois, Ontario KOE 1KO

Encore memory system with serial interface to computerized videotape editing system\*, RVS 524 and 508 production switchers. Staff: John Ross, Ole Skrydstrup, Fernando Paulino, Jim Millard, Jack McQuigge, Merle Quinn

R/Scan Corp. 1740 511 11th Ave. South, Minneapolis 55415 LPATS—Lighting position and tracking system\*

RTNDA 1501 1735 DeSales St., NW, Washington 20036

Staff: Ed Godfrey, Lou Adler, Lou Prato, Dean Mell, Ernie Schultz, Eddie Barker, Joe Tiernan

RTS Systems
110 W. Chestnut St., Burbank. Calif. 91506
System 2500 amplifiers\*, series 17 intercom\*, RTS/Plantronics communications headsets\*, TW intercom systems, series 800 intercom, series 4000 IFB system, series 400 pro audio amplifiers, HPM41 mixer.
Staff: Ethan Bush, Douglas Leighton, Robert Tourkow, David Brand, Vicki Bertrand, Stan Hubler. Sue Seidenglanz, Linda Rico, Cliff Michael.

John B. Ruby Co. 1776 20950 Brant Ave., Long Beach. Calif. 90810

Rupert Neve 1410
Berkshire Industrial Park, Bethel, Conn. 06801
Necam system fitted on 51 and 81 series consoles, 51 series of stereo production and post production television consoles, audio consoles, VCAs with interface to most video production switchers, DA 90 distribution amplifiers, 33 series limiter compressors. Staff: Laci Nester-Smith, Derek Tilsley, Barry Roche, Dr. Martin Jones, Anthony Cornwell, Anthony Langley, B. Morgan Martin, James Kurowski, Steve Boze.

Russco Electronics 413 5690 E. Shields Ave., Fresno, Calif. 93727

Turntables, tone arms, small consoles, phono preamps, portable mixers, remote mixer amplifiers, studio monitor/audio amplifier, telephone line to console audio interface/equalizer. Staff: Russell Friend, Barbara Gaudin, Michael Vink, Diane Turnipseed.

Sachtler Corp. 1648

400 Oser Ave., Hauppauge, N.Y. 11788
Fluidheads for ENG use—Video 14\*, 20, 25, 30, and Panorama. Staff: Eric Falkenberg, Fiete Deckmann, J. Gehrt, Kim Sachtler, Heinz Feierlein, Walter Hopfinger, Werner Friedl, Hardy Jaumann.

Saki Magnetics 416 8650 Hayden Pl., Culver Ciry, Calif. 90230 Ferrite heads for Ampex, MCI, Mincom, Otari, Revox, Scully, Studor and Technics machines, long-life metal heads for cartridge machines. Staff: Bob La Violette, Trevor Boyer.

Samson Music Products 324
124 Fulton Ave., Hempstead, N.Y. 11550

Sansul Electronics 130 58 Round Hill Rd., Dobbs Ferry, N.Y. 10523

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SCA Communications
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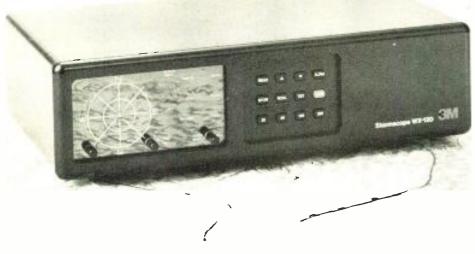
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Beaman, Erik Horvitz.

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FM exciters, stereo generator, AM and FM transmitters.

Skotel Corp. 1126
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Drawer C, Ocean Gate, N.J. 08740

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862 Scarsdale Ave., Scarsdale, N.Y. 10583
"Television Image Quality" book. Staff: Lynnette Robinson, Alex Alden, Peg Caggiano, Barry Detwiler, Dorothy Smith.

Solid State 1723 2633 15th St., NW, Washington 20009

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H.A. Solutec 1517 4360 Iberville St., Montreal, Que. H2H 2L8 Staff: Gilles Fortin. Ernest Grondin, Michel Beland.

Solway Inc. 139 5010 Johnson St., Hollywood, Fla. 33021

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1324 Motor Pwy, Hauppauge, N.Y. 11788
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Steenbeck 1424 9554 Vassar Ave., Chatsworth, Calif. 91311 ST 941V video-sound editing table\*, film-tovideo transfer unit with electronic counter, loop programing and interlock capabilities. Staff: W. Bass, W. Otto, T. Diamond.

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Symtec 1522

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Telemet 1202

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Telescript 1407 445 Livingston St., Norwood, N.J. 07748

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21 Concourse Gate, Nepean. Ont. K2E 754
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Staff: Marvin Crouch, Manfred Muenzel. Ed Ritz. Anton Kathrein, Manfred Schlenter, Steve Crouch.

Tentel 1613 1506 Dell Ave., Campbell, Calif. 95008 Universal head protusion gauge for VCR's, tape tension gauges, spindle height gauges. **Staff:** Wayne Graham, John Chavers, John Bonn, Burke Stafford, Kathryn McLaughlin, Bev Zern.

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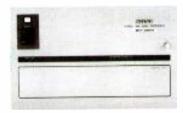
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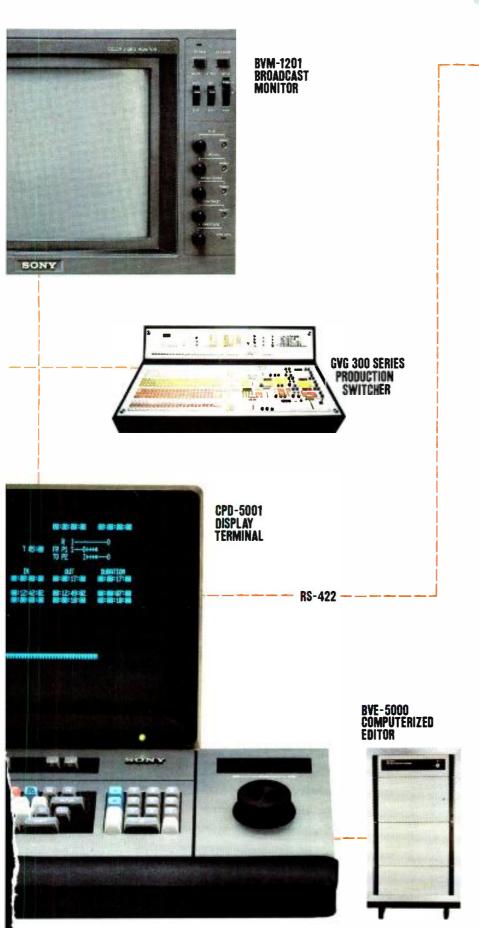


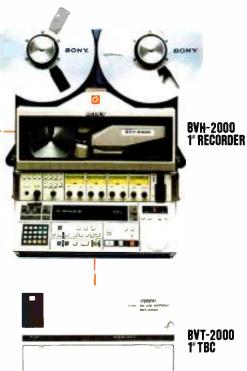
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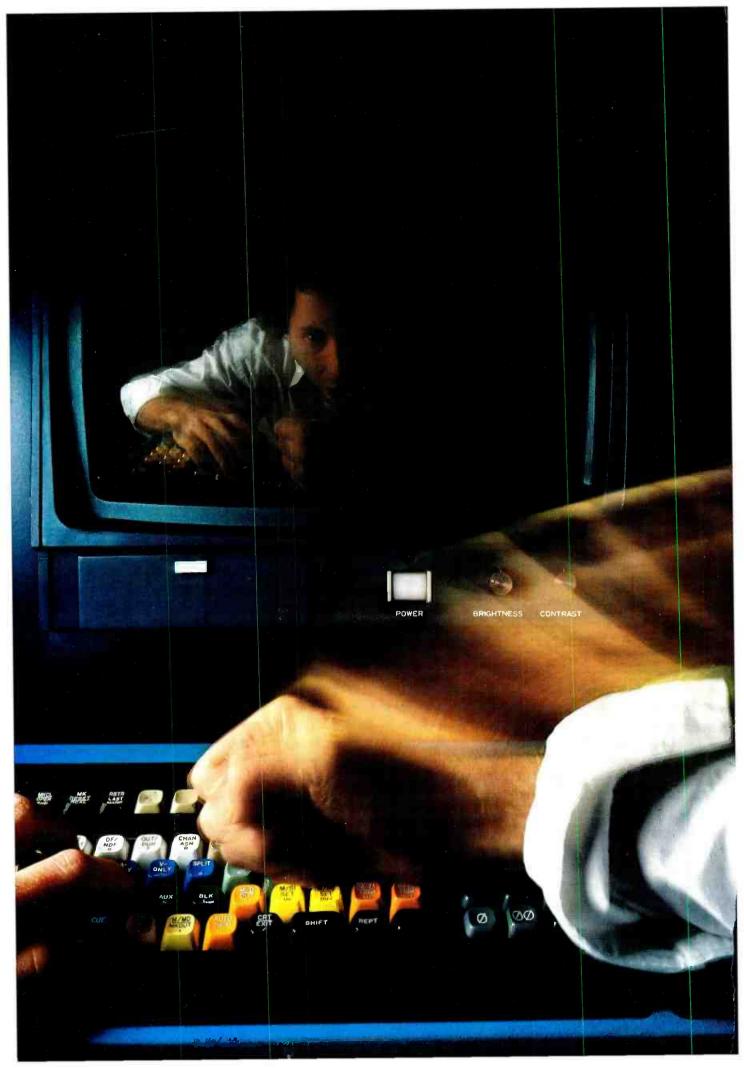
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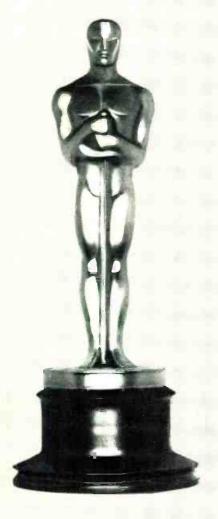
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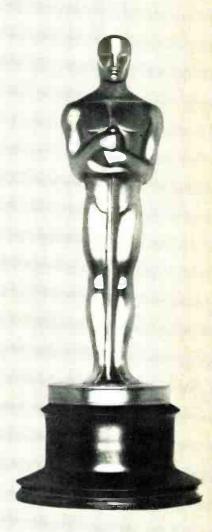
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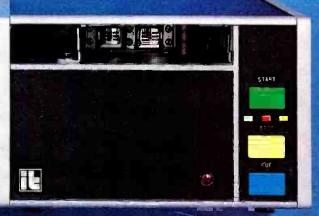
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One Dag Hammerskjold Pl., New York 10017
Staff: James Greenwald, Richard Mendelson, Frank McCann, Gordon Hastings, Ken Swetz, Larry Lewis, Victor Ferrante, David

Abbey, Paul Arnzen, Elissa Lebeck, James Beloyianis, Michael Hugger, Richard Goldstein, Richard Brown, Peter Goulazian, Tom Olson, Jerry Cregan, Bill Fortenbaugh.

Major Market Radio Caesars Palace 1080 415 Madison Ave., New York 10017

**Staff:** Warner Rush, Tom McKinley, Austin Walsh, Rich White, Barry Gorfine.

Masla Radio Hilton 14-121 41 E. 42d St., New York 10017

Staff: Jack Masla, Stan Feinblatt, Charles McCreery, Rhona Waxenberg, Mel Trauner, David Adams, Doug Masla, Johnnie Pegues, Arnold Taylor, Julie Judge, Bruce Schneider, Kathy Murphy, Bud Pearse, Elizabeth Rooney, Bob Masla.

McGavren Gulid Hilton/Imperial 154 E. 46th St., New York 10017

Staff: Ralph Guild, Ellen Hulleberg, Jan Sperazza, Dona LaVitola, Erica Farber, Martha Harrington, Dick Sharpe, Peter Doyle, George Pine, Eddie Leeds, Frank O'Neill, Pamela Little, Tom Poulos, Anthony Durpetti, John Bitting, Greg Campbell, Gary Ahrens, Fran Sharp, Anthony Maisano, Shane Fox, Jim Peacock, Les Goldberg, Jeff Dashev, Sally Leben, Dennis Dalton, Denton Holmes, David Wisentaner, Vincent Ballino, John Rykala, Bob Lion, Tony Miraglia, Marc Guild, Gina Ansaldi, Tom Dolliff, Elaine Slasinski, Gary Donahue.

Selcom 460

521 Fifth Ave., New York 10017

Staff: Lou Faust, Linda LaPlant, Andy Rainey, Barbara Crooks, Bill Smither, Donn Winther, Andrea Gooch, Bob Smith.

Seitel MGM Grand 750 Third Ave., New York 10017

**Staff:** Jack Mulderrig, Larry Maloney, Bob Coppinger, Joe Eisberg, Ray Johns, Tom Will, Steve Boutis.

TeleRep MGM Grand 875 Third Ave., New York 10022

Staff: Tom Belviso, Jay Isabella, Mickey Colen, Sandra Murray, Mac Lorimar.

Torbet Radio Desert Inn
1 Dag Hammerskjold P1., New York 10017

**Staff:** Peter Moore, Mike Bellantoni, Tony Fasolino, Mariann DeLuca, Bob Lurito, Lou Mahacek, John Graziano.

Weiss & Powell MGM Grand 277 Park Ave., New York 10172

**Staff:** Bob Weiss, Ralph Connor, Steve Marriott, Pam Caldwell, Mike Sobol, Nancy McNeil.

Adam Young Marina hotel 3 E. 54th St., New York 10022

**Staff:** Vincent Young, Keith Thompson, Kevin Bainbridge, Joan Barron.

**Others** 

A.C. Nielsen Co. Sahai

Nielsen Plaza, Nonhbrook, Ill. 60062

Staff: Dave Traylor, Paul Baard, Bill Miller, Dave Woolfson.

Arbitron 1150
1350 Avenue of the Americas, New York 10019

ASCAP

1 Lincoln Plaza, New York 10023

Birch Report

3200 N. University Dr., Coral Springs, Fla. 33065

Staff: David Gingold, Ken Gross, Craig Harper.

Firstmark Financial Corp. Hilton
110 Washington St., Indianapolis 46204

Staff: Phillip Thoben, William Van Huss, Michael Lewis, Bill Kennedy.

Jhan Hiber & Associates Hilton 14440 Cherry Lane Ct., Suite 215, Laurel, Md. 20707

**Staff:** Jhan Hiber, John E. Patton, Wendy Minafo, John Stonis.

Ward L. Quaal Co. Hilton 401 N. Michigan Ave., Suite 340, Chicago 60611

Staff: Ward L. Quaal.

SESAC Sahara
10 Columbus Cr., New York 10019

Staff: A.H. Prager, Bob McGarvey, W.F. Myers, Al Altman.

T.A. Associates Hilton
111 Devonshire St., Boston 02109

Staff: David Croll, Richard Churchill, William Collatos, Stephen Gormley, Jim Wade.

TelCom Associates Hilton 80-33 Sunser Blvd., Suite 559, Los Angeles 90046

Staff: Ron Krueger, Grace Jacobs, Jim Cusick

Television Information Office Booth 8/2 745 Fifth Ave., New York 10022

**Staff:** Roy Danish, Louis Ames, Jim Folsom, Jerry Lanser.

Wall Street Journal Report Hilton 28-121 222 Cortlandt St., New York 10007

Staff: Bob Rush, Joe Guilfoyl, Ken Martin.

#### **Public service**

Armed Forces Broadcasting Association—906; Broadcasters Promotion Association—917; Headquarters Department of Army Reserve—923; IEEE—900; National Committee for Employer Support of the Guard and Reserve—920; National Guard Bureau—921; National Weather Service—922, 24; NBA of Community Affairs—902; Society of Broadcast Engineers—926; Social Security Administration—904; U.S. Air Force—919.

#### FCC

The FCC will be represented at NAB by all of its commissioners. Present will be FCC Chairman Mark Fowler and Commissioners James Quello, Mimi Dawson, Henry Rivera and Dennis Patrick. Accompanying them will be Robert Pettit, legal assistant to Dawson, and Ricky Silberman, special assistant to Dawson: Renee Licht, legal assistant to Rivera, and Diane Silberstein, legal assistant to Patrick. Representing the Mass Media Bureau will be James McKinney, bureau chief; Roderick Porter, deputy chief; Bill Hassinger, engineering assistant to the chief; Larry Eads, audio services division chief; Ralph Haller, technical and international branch chief; John Refser, technical and international branch assistant chief; Barbara Kreisman, low-power television branch chief; Milton Gross, fairness/political broadcasting branch chief. Also attending will be William Russell Jr., director, Office of Public Affairs, and Alex Felker, senior electrical engineer, Office of Plans and Policy.

#### When The Stakes Are High In Radio Production .... deal us in!

#### Play Your Cards Right

At The Otis Conner Companies we have a different approach to producing our product. We know that quality makes a difference. When you want an ID package, a production/sales library or special feature for your radio station, you can't afford to get lost in the shuffle so many other production companies give you.

#### **Nothing But Aces**

One of the reasons an Otis Conner package stands out from the competition is because every cut is written and produced by CLIO Award winner, Otis Conner. From Texaco, to Paul Masson Vineyards, he's won hundreds of awards for creating music that not only gets noticed, but gets results.

And he's applied that same result-oriented marketing approach to every broadcast package.

#### We've Upped The Ante

Otis Conner Special Features offers Radio Specials that are truly special. Our "American Christmas" was the smash hit of 1983. "The Hot 30" our new Adult Contemporary countdown show will be ready for airing in just a few weeks.

And be sure to look for our new 24 hour 4th of

July Special "Celebration of America."®

#### Something Up Our Sleeve

Otis Conner Productions also offers one of the most complete selections of proven ID packages available. Whether it's hard rock, soft country, or something in between, you'll find the right sound at the right price.

Plus, there's our new "Power Pac"® promotion, just created for KFRC in San Francisco. It's an ID package that's pure electricity on the air. And it could be yours.

#### Play To Win

Your sales staff will be in the chips when you put The Sound System to work for your station. If you're ready to increase your local sales, then we're ready to show you how. Call Stu Goldberg at WRKS in New York City. He's using the "Sound System"® in America's toughest retail market.

#### Don't Be Bluffed By The Old Gang

Now you've got an alternative to the same old deal. Just call Otis Conner Productions at (214) 386-OTIS for a free demo reel.

And if you play you're cards right, we'll make you a winner too.



#### Everything's coming up roses in Vegas

NAB runs up curtain on four days of news-making sessions, some laughs and a lot of technical dazzle

The National Association of Broadcasters was to kick off its 62d annual convention yesterday (April 29) in Las Vegas, with 30,000 persons expected for the four-day meeting (April 29-May 2).

Preregistration last week was at an alltime high at 4,958—despite the ongoing strike by employes of many of the city's largest hotels. The convention is being held at the Las Vegas Convention Center and Hilton hotel. Even if the strike were not settled before conventioneers arrive, the Hilton has assured NAB that services will not be interrupted.

Although much of the news will emanate from the numerous legislative and regulatory panels on the program and at the concurrent engineering conference (April 28-May 2) with its expanded agenda, the exhibit hall may steal the show. The convention's equipment display has doubled in five

This year the convention's spotlight is on the broadcasters themselves as NAB asks its members to participate in a national voter education campaign. The association will stress the civic contribution broadcasters can make during an election year and has designed the convention's theme, "You've Got What It Takes" around it.

NAB's push is part of a larger voter education drive in conjunction with The Advertising Council (BROADCASTING, April 23).

On Sunday at 2:30 p.m., at West Hall across from the Convention Center, the meeting opens with a "State of the Industry" address by NAB President Eddie Fritts. It is followed by the presentation of the Distinguished Service Award to Elton Rule, retired vice chairman of ABC.

Next on the agenda is a "You've Got What





Russell

Osgood

It Takes" extravaganza featuring a multimedia show. Called, "An Audio/Visual Celebration of America" and produced by TM Communications Inc., Dallas, the 40-minute show may be repeated on Wednesday. NAB's patriotic theme will be reinforced by a number of workshops on political advertising, exit polling and debates.

On Tuesday, CBS News Correspondent Charles Osgood will speak at the radio luncheon. Political satirist Mark Russell is the guest speaker for the TV luncheon on Monday. (The Radio Hall of Fame induction ceremony, honoring Red Skelton and Bob & Ray, will take place during the radio luncheon.)

The FCC will be present in full force. Chairman Mark Fowler will address a closing joint luncheon on Wednesday. A "one-on-one" with Jim McKinney, FCC Mass Media Bureau chief, is slated for Monday afternoon. The NAB will hold its traditional FCC/congressional staff breakfast on Tuesday. FCC Commissioners James Quello, Mimi Dawson, Henry Rivera and Dennis Patrick will appear on a panel on Wednesday.

As for government relations, NAB has mapped out an agenda featuring leading congressional figures. More than 40 House and Senate members will participate on four panels: "Deregulation: A Congressional Update"; "Congressional Cable Copyright"; "Local Cable Carriage," and "Media Issues of the 80's."

Other highlights of the convention include the Minority Programing Exhibition, Monday and Tuesday, a series of legal "how-to workshops" on Tuesday evening, and presentations on Tuesday by the Radio Advertising Bureau and the Television Advertising Bureau.

The agenda begins on page 106.

### A NEW WORLD FOR TV MUSIC LICENSING . . . PRACTICALITIES, PROBLEMS, PATIENCE AND DOLLARS!

ATTEND OUR NAB WORKSHOP. MON., APRIL 30, 8-9:15 A.M.

MODERATOR: LESLIE G. ARRIES, JR., WIVB-TV, BUFFALO, N.Y.

PANELISTS: ABIAH A. CHURCH, STORER COMMUNICATIONS, MIAMI, FLA.

R. BRUCE RICH, ESQ., WEIL, GOTSHAL & MANGES, NEW YORK, N.Y.

JACK ZWASKA, T.V. LICENSE COMMITTEE, NEW YORK, N.Y.

ALL INDUSTRY TELEVISION STATION MUSIC LICENSE COMMITTEE

# THIS COULD SAVE YOUR LIFE. BUT YOU CAN'T HAVE IT.



Today people died who shouldn't have. People who would have been saved by air bags.

In an accident, air bags automatically provide a cushioning buffer between you and the car. They protect occupants' necks, heads and faces from flying glass and other debris. They're most effective in front and front-angle collisions, the deadliest kinds of crashes.

Today you can't have this protection. Except for a few luxury imports, cars with air bags are not available.

The auto industry has opposed air bags for years. They claim they would cost twice what the government's independent experts have testified. And they say car buyers don't want to pay for the extra protection air bags provide.

We think they're wrong.

In the property and casualty insurance industry, we've studied air bags for a long time. Experts tell us they would prevent thousands of deaths a year, and eliminate hundreds of thousands of serious injuries.

How much would air bags actually cost? As standard equipment, they would add about three percent to the price of the average automobile. It sounds like a bargain, and it is.

Right now in Washington, Secretary of Transportation Elizabeth H. Dole is reviewing possible safety requirements for all new cars. And most car companies are trying to keep air bags right where they are

today. Nowhere.

Do something about it while there's still time.

Send for a free copy of our new report, Air Bags: A Matter of Life or Death. It sums up the latest facts and tells how you can get involved.

Help save air bags and help save lives. One could well be your own.

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#### What's on tap for NAB '84 in Las Vegas

Registration. The registration desk will be located in the rotunda of the Las Vegas Convention Center. The desk will be open 9 a.m. to 5 p.m., Saturday, April 28; 8 a.m. to 5 p.m. on Sunday and Monday; 9 a.m.-5 p.m. on Tuesday, and 9 a.m. to noon on Wednesday. All joint sessions are listed under the radio section. Event locations are in the Las Vegas Convention Center unless otherwise specified.

#### Sunday, April 29

Opening ceremonies, 2-2:30 p.m. West Hall. Concert with U.S. Marine Rand

**Opening session.** 2:30-4:30 p.m. West Hall. State of the industry address by Edward Fritts, NAB president. Presentation of the Distinguished Service Award to Elton Rule, retired vice chairman, ABC Inc.

#### Monday, April 30

#### RADIO SESSIONS

Syndicators/program producers breakfast. 7:30-9 a.m. Las Vegas Hilton, Ballroom B.

**Two concurrent clinics.** 7:30-8:45 a.m. *Age, Sex and Equal Employment Opportunity in Radio.* Room N1. Moderator: Michael Berg, NAB. Panelists: L. Michael Zinser, King Ballow & Little; Matthew Leibowitz, Miami attorney; Gordon Coffman, Bonneville International Corp.

Personal Taxes, Investments and Estate Planning. Room N2. Panelists: Jim Carnegi, Radio Business Reports; Ellis Elgart, Elgart, Dickler & Co.; Mark Dressler, First Interstate Bank. Legal advisor: Steven Simpson, Maupin, Taylor & Ellis.

Joint clinic. Alcohol and Drugs—More Than a Personal Problem. Room D1. Moderator: Charles Woods, AFTRA. Panelists: Gary Graham, M.D., Kemper Life Insurance Co.; Henry Huestis, NBC; Lou Sanman, ABC; Mary Vasquez, Vasquez Management Consultants. Legal advisor: John Hoover, Hogan & Hartson.

**Four concurrent clinics.** 9-10:15 a.m. *Motivating You and Your Personnel*. Room T2. Presenter: Charles Reilly, In-Person Communications. (To be repeated Tuesday at 7:30 a.m.).

Making \$\$\$ with New Technologies. Room T1. Moderator: John Abel, NAB. Panelists: Paul Bortz, Brown, Bortz & Coddington; Gregg Skall, Blum, Nash & Railsback. (To be repeated Tuesday at 7:30 a.m.).

What To Do Before the Computer Arrives. S2. Moderator: Catherine Seigerman, NAB. Panelists: Sidney King, KCIN(AM) Victorville, Calif.; Joseph McGranaghan, wkok(AM)-wokx(FM) Sunbury, Pa.; Phil Robbins, wytl-(AM)-wosh(FM) Oshkosh, Wis.; Bayard Walters, The Cromwell Group.

Great Station Promotions. S1. Moderator: Jim Kefford, Drake-Chenault. Panelists: Steve Smith, wkτι(FM)-wτμJ(AM) Milwaukee; George Allen kLGA(AM) Algona, Iowa. Legal advisor: Rose Perez, NAB.

Two concurrent clinics. 9 a.m.-noon. Managing Your Time More Effectively. Room L. Presenter: David Oakley, Satisfaction Guaranteed.

The One-Minute Radio Manager. Room M. Patricia Zigarmi, Blanchard Training & Development.

Joint concurrent workshops. 10:30-11:45 a.m. *Media Issues of the 80's*. Rooms R2 and 4. Introductions: Martin Rubenstein, Mutual Broadcasting System. Moderator: Bill Monroe, *Meet the Press*. Panelists: Senators Alan Simpson (R-Wyo.), Arlen Specter (R-Pa.) and Ted Stevens (R-Alaska) and Representatives Jim Bates (D-Calif.), Henry Hyde (R-III.) and Patricia Schroeder (D-Colo.)

Deregulation: A Congressional Update. Room E1, 2 and 3. Moderator: John Summers, NAB. Panelists: Representatives Cardiss Collins (D-III.), Michael Oxley (R-Ohio), Matthew Rinaldo (R-N.J.), Al Swift (D-Wash.), Thomas Tauke (R-Iowa), Billy Tauzin (D-La.) and Henry Waxman (D-Calif.)

Three concurrent clinics. 10:30-11:45 a.m. In-House Research: How To

Do It and Use It. Room S2. Moderator: Ellen Hulleberg, McGavren Guild Radio. Panelists: Ted Bolton, Ted Bolton & Associates; Ellen Burke, кLZ(АМ)-кАZY(FM) Denver; Terry Donner, wни(АМ) New York. (To be repeated Tuesday at 4 p.m.).

Accounting for Nonaccountants. Room N1. Presenter: George Riven, Miller, Kaplan, Arase & Co. (To be repeated Tuesday at 4 p.m.).

AM Stereo: Chapter II. Room T2. Moderator: Fred Walker, Broadstreet Communications. Panelists: Wayne Eddy, KYMN(AM) Northfield, Minn.; Joe Ernest, KTSA(AM) San Antonio, Tex.; Don Dalton, KFI(AM)-KOST(FM) Los Angeles; Jon Strom, Sony. Legal advisor: Edward Henneberry, Howrey & Simon. (To be repeated Monday at noon.).

Hands-on Microcomputer Lab. 12:30-2:30 p.m. Room L.

**Two concurrent clinics.** Noon-1:15 p.m. *Getting Your Clients To Pay Or.*.. Room N1. Panelists: Jim Hooker, Media Sales Training Systems; Mike Oatman, Great Empire Broadcasting; Craig Fox, wAOX(AM) Syracuse, N.Y.; Don Weir, WHBY(AM)-WAPL-FM Appleton, Wis. Legal advisor: Richard Waysdorf, Wilner & Scheiner. (To be repeated Tuesday at 7:30 a.m.

AM Stereo: Chapter II. Room T2 (Repeat of earlier session).

**Clinic.** 12:30-2:30 p.m. *Attracting Political Advertising*. Room T1. Presenter: Jerry Russell, Campaign Consultants. Legal advisor: William Rehner Jr., Hogan & Hartson.

**Two concurrent clinics.** 2:30-3:45 p.m. *Hispanic Radio*. Room N2. Legal advisor: Raul Rodriquez, NTIA.

Daytimers Forum. Moderator: Jim Wychor, kwoa(AM)-FM Worthington, Minn. Panelists: Bill Hassinger, FCC; Wayne Eddy, kymn(AM) Northfield, Minn. Legal advisor: Barry Umansky, NAB.

**Joint clinic.** 4-5:15 p.m. *One-on-One with Jim McKinney.* Rooms E1, 2 and 3. Moderator: Eddie Fritts, NAB, with FCC Mass Media Bureau Chief James McKinney.

Joint clinic. Minority Recruitment and Development... Everyone Wins. Room N2. Panelists: Paul Yates, KYW(AM) Philadelphia; Howard Woolley, NAB; Lillian Holford, Bay Area Broadcast Skills Bank; Ed Gomez, KABQ(AM). Legal advisor: Howard Braun, Fly, Shuebruk, Gaguine, Boros, Schulkind & Braun.

Reception. 5-6:30 p.m. Hilton Pavilion 9. Daytimers reception.

**Reception.** 6-7:30 p.m. Hilton Ballroom. Sixth annual ham radio operators recepton. Special guest: Senator Barry Goldwater (R-Ariz.)

#### TV SESSIONS

Three concurrent early bird workshops. 8-9:15 a.m. *Innovative Revenue Sources for Smaller Markets*. Room D2. Moderator: Bill Bengtson, κοΑΜ-ΤV Pittsburg, Kan. Panelists: James Blake, κSTP-TV Minneapolis; David Ludwig, Ludwig & Associates, Lake Oswego, Ore.; Charles Pittman, Jefferson-Pilot Retail Services. Legal advisor: B. Jay Baraff, Baraff, Koerner, Olender & Hochberg.

1984—A New World for TV Music Licensing. Room A1. Moderator: Leslie Arries Jr., wvp-tv Buffalo, N.Y. Panelists: Abiah A. Church, Storer Communications; R. Bruce Rich, All-Industry Television Music License Committee; Jack Zwaska, All-Industry Television Music License Committee.

Marketing the News. Room A4. Moderator: Roy Danish, Television Information Office. Panelists: Lois Hinkle, wkrc-тv Cincinnati; Lee Minard, квтv(тv) Denver; Donald North wkrc-тv Cincinnati; James Topping, ктяк-тv Houston. Legal advisor: Richard Schmidt Jr., Cohn & Marks.

**Opening general session.** 9:30-10:30 a.m. *Television and the White House...Why Can't We Be Friends.* Rooms A2, 3, 5 and 6. Moderator: Elmer Lower, Syracuse University. Panelists: David Gergen, American Enterprise Institute; Herb Klein, Copley Newspapers; Ed Fouhy, ABC News; George Reedy, Marquette University; Robert Pierpoint, CBS.

**Two concurrent workshops.** 10:45 a.m.-noon. *Congressional Cable Copyright.* Moderator: David Polinger, WPIX Inc. Panelists: Senators Patrick Leahy (D-Vt.) and Charles McC. Mathias (R-Md.) and Representatives Hamilton Fish Jr. (R-N.Y.), Sam Hall Jr. (D-Tex), Robert Kastenmeier (D-Wis.), Carlos Moorhead (R-Calif.) and Mike Synar (D-Okla.).