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Vol. 106 No. 18

Broadcasting # Apr 30

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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 D 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.**

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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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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 IV

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-pernight, 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 number 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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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 Cities.

Metrocall D 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.

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

TV ONLY

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,

Warni Degs

Wallie Dunlap



Washington, D.C.

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 D 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 Detio 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.

International House of Pancakes

🗆 RAOIO ANO TV 🖾

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.

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VOLUME IV DELIVERS



Ady Vantage

Katz's look at radio. Katz Radio reports that 25-54 demographic was most requested by agencies in first guarter 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 excluded.

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

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Yearbook Mark Jeschke, manager. Joseph A. Esser, associate editor. Daniel L. Martucci, production assistant.

Advertising

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Production Harry Stevens, production manager.

Don Gallo, production assistant. Administration

David N. Whiteombe, vice president/operations. 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



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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 and rerun. New K-Series from Sony.

The Tape Measure In Video.





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 best.

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.

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.





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.

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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. Informalion: (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-

Vajor & 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, Dailas; June 17-20, 1987, Peachtree Plaza, Atlanta; 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.

Feb. 15-16, 1985—Society of Motion Picture and Television Engineers 19th annual television conterence, 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, compila-

tion of past Museum of Broadcasting exhibitions, pre-

sented by Museum in cooperation with Academy of

Television Arts and Sciences Foundation. ABC Enter-

May B-Hollywood Radio and Television Society newsmaker luncheon, "Covering the Summer Olympics," with ABC News and Sports President Roone Ar-

May 9-Second annual "Excellence in Media" awards

tainment Center, Los Angeles.

ledge. Beverly Hilton, Los Angeles.

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

May 9—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, Washington.

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 headguarters, Washington.

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

May 16-19—Public Telecommunications Financial Management Association annual conference. The 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.

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Poll 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.

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 staging," 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 unidimensionally.

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. Why is TOMCAT in use by ABC, Bonneville, Capital Cities, Capitol, Cox, Gannett, GE, Katz, Meredith, Metromedia, Mutual, NBC, RKO, Sudbrink, Susquehanna, Westinghouse and other broadcasters who demand the best?

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Agreement to disagree on deregulation

TOP OF THE WEEK

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 subcommittee'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









Wint

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 committee. 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.

and prospered under it for years," he said. 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 deleted. "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 ap-



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 signals.

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 mustcarry 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 refered 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.


Rubensteir



Wallace

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 WCFLIAMJChicago, 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 facilities.

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 amend-ed 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 al-ready 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 \$120million 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 concerning 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 deposition.

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.

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

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 impact" 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 the system.

Rutter also endorsed WA's proposal to de-

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 proposed 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.

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-I 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

TOP OF THE WEEK







Paramount's Bruce Gordon

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 Scan-

ABC Video's June Shelley

dinavian 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 broad-casting 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



Metromedia's Paul Rich

Broadcasting Apr 30 1984 42 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-TV programing—mostly Nova, Evening at Pops and Enterprise—is "in the seven figures and much of that has been plowed back to WGBH-TV."



Warner Bros. Television Distribution A Warner Communications Company



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is Boston's first commercial television station to establish a complete, comprehensive news at 10pm. A newscast with local, national and international news, live, onlocation reporting, sports and weather ... all at a new more convenient time.

And though it is a new concept here, in

New York, Chicago, Los Angeles and most other major cities, viewers already have the option of watching a quality late news—earlier. Now, there's no reason to wait up for news, weather and sports. "Now, there's the News at TEN." THE TIME IS RIGHT!



JACK HYNES Jack is Boston's

nost experienced newsman, having reported on New England for more than 25 years.

6666



A native Bostonian ... Jerry predicts you 'll never have to wait up for the late forecast again.



Julie brings a concern for people, along with award-winning reporting to the anchor desk.



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." NAB 84



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 marketplace 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 modifed 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 be-

Broadcasting Apr 30 1984

cause 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-ofthe-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

66We ask a lot of questions to help our viewers find answers.99

Before we get involved, we ask a lot of questions. Why? Because we want to make sure what we do really serves the communities we're in. Whether it's in New Jersey/New York, Los Angeles or Memphis, our tradition of community service always tries to answer the most pressing needs of our local audiences.

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 documentaries, 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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RKOV TELEVISION WHERE VIEWERS FIND ANSWERS

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

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 halis, 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.

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

Digital video systems for broadcast, postproduction and cable.

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

1134C 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

34 Tower St., Hudson, Mass. 01749

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

1320 ADC Magnetics 4900 W. 78th St., Minneapolis 55435

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

1724

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.

1223 ADM Technology

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

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

Digital audio processing systems.

AEG Telefunken (Bayly) 124 167 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

Agfa-Gevaert

1608

187

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, Marconi 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

478 W. Hamilton Ave., Suite 207, Campbell, Calif. 95008

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

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one and three unit analyzers for bat	tery
packs*, six-unit sequential charger for \	VTR

1627

409

1177

one and three unit analy packs*, six-unit sequential and ENG*. Staff: Robert Williams, Georgia Franks, William Sapp, William Sapp Jr., Charlie Stinson, Jim Sapp.

Allen Avionics 224 E. Second 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

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 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.

210, 1331A Alpha Audio 2049 W. Broad St., Richmond, Va. 23220

Acoustical foam. Staff: Eric Johnson, Nick Colleran, David Jones, Bobby Tulloh, Carlos Chafin

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 Veniura 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 I	
American Diversified 3200 Park Venter Dr., Costa Mesa, Calif.	176 92626
American Horizon 1481 N. Fruitridge Ave., Terre Haute 47804	1122A , Ind.
American Image Productions 112 Union Ave., Memphis 38103	653

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

Staff: Jerry Williams, Richard Fain, George Lale.

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 Box 1776. Southeastern, Pa. 19301

1412 Amperex 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 White, Sandy Camicia, Lee Nowell, Ron Barnes, Tom Perry, Raleigh Utterback, Greg Murphy, Kipp Rabbitt.

Ampex

1400

808

634

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. William-son, 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. Coomes, J. Walsh, M. Wolschon, C. Wright, F. Nault, T. Johnston, H. Persoon, L. Roberts, R. Miller, D. Carrolt, 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

400 W. Cummings Park, Woburn, Mass. 01801 VITC/LTC reader, portable VITC/LTC generator, SMPTE generator/reader, distribution amplifiers. Staff: Mark Wronski, Peter Mc-Donnell, 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. 1201A

Andrew Corp. 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

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

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.

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

Heavy duty and rackmount cases.

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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.

513 Aphex Systems 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 17 E. 96th St., New York 10028

107 Toby Arnold & Associates

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

802

1730

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

1163

1226

500 Route 303, Blauvelt, N.Y. 10913 Power supplies.

Artel Communications

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

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

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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	

1429 AT&T Information Systems 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., Watertown, Mass. 02172 Two-wire machine remote control system. Staff: Donald Kalischer, Eric Aker. Audico 1343

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

Audi-Cord 123
1845 W. Hovey Ave., Normal, 111. 61761
Models A, S and TDS* cartridge tape ma- chines, Staff: Carl Martin, Delmar Rowe,
Duane Martin, Michael Craig, Carol Wil-
liams.
Audio Broadcast Group637A2342 South Division, Detroit 49507
Audio Developments 1743
414 N. Sparks St., Burbank, Calif. 91506
Multimixer, pico mixer, ENG mixer. Staff: An- tony Levesley, Roger Tromans, Ron Feller.
Audio Engineering 174
1029 N. Allen Ave., Pasadena, Calif. 91104
Record cleaning machine". Staff: Wes Doo- ley, Michael Baskin.
Audio Kinetics 1173
4721 Laurel Canyon Blvd., Suite 209, N. Holly-
wood, Calif. 91607
Time code synchronizers.
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11538 Prager Ave., Lake	View Terrace,	Calif.	
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Howard Smith, Michael Beville.	B.J. Lipari Bob Barne
Audio-Technica 1141	Bill Borche
1221 Commerce Dr., Stow, Ohio 44224 Microphones, mixing consoles, head-	Bud Malo
Microphones, mixing consoles, head- phones, tone arms, phono cartridges.	Leinen.
Auditronics 505	5-05 Burns
3750 Old Getwell Rd., Memphis, Tenn. 38118	Dynamic
Broadcast consoles, audio and multichan- nel production consoles, audio distribution	phones, r accessorie
amplifiers, programable equalizer.Staff:	BGW Sys
Welton Jetton, Steve Sage, Jim Woodworth, Larry Lamoray, Jerry Puckett, Keith Arnett.	13130 S. Y
Aurora Systems 1312	Audio pov
185 Berry St., Suite 143, San Francisco 94107	Bird Elect
Digital videographics and animation system. Staff: Richard Shoup, Damon Rarey, W.	15 kw and
Tom Beams, Chuck Kozak, Donna Foster-	surement
Roizen.	heat exch digital calo
Autocue 1318A 33 W. 60th St., New York 10023	Kuklinski,
Autogram Corp. 120	son, Herb
Box 456, 631 J Pl., Plano, Tex, 75074	BIW Cabl 65 Bay St.
Microgram production consoles (six-, eight-	Cable, co
and 10-channel). Staff: Ernest Ankele, De- Lores Ankele, Neva White, Jim Laird, Don	vTR cable
Kuhlsmann, Richard Benjamin.	VTR cable
Avantek 1742	Hathaway
481 Cottonwood Dr., Milpitas, Calif. 95035 AR-2000 simulchannel earth station video	Black's C Consult
receiving system. Staff: Rob Corrao, Don	120 W. Pic
Smith, Bill Le Doux, Dave Stogner, George Sears, Eric van der Kaay	Bogen Ph 100 S. Van
AVC Systems 331	Cine/video
1517 E. Lake St., Minneapolis 55407	sories*, o
Consoles, reel-to-reel machines, loud- speakers, microphones, compellor and au-	ground ec cases*, M
ral exciters, digital audio processors. Staff:	head*, filt
Billy Emery, Michael Halleck, Doug Ordon.	Staff: Bru
William Bal Corp. 1614 947 Newark Ave., Elizabeth, N.J. 07207	Bogner B 401 Railroo
Barrett Associates 103	High pow
800 Grand Ave., Suite C-1, Carlsbad, Calif,	(220 kw), UHF slot a
92008 Staff: Mayer, Kettering, Mayou, Robison.	circularly
Basys 1129	nas, MDS antennas,
2685 Marine Way, Mountain View, Calif. 94043	cation and
Newsroom computer equipment and soft- ware. Staff: David Lyon, Ed Grudzien, Joe	Richard B ano, Steve
McGoldrick, John Chapman, Dan Moloney,	Boonton
Roy Terry, Ted Feurey, Peter Kolstad, Roy Holland, Adrian Scott, Claire Pullinger.	791 Route
Bayly (see AEG Telefunken)	Bosch 2300 South
Beaveronics 1313	TVS TAS
8 Haven Ave., Port Washington, N.Y. 11050	processor
Belar Electronics 203	tem ⁻ , gra
Box 826, Devon, Pa. 19333 AM modulation monitors, stereo frequency	ing teleph
monitors, FM modulation monitors and ste-	corder inc er*, video
reo monitors, TV aural modulation monitors	generators
and frequency monitors, SCA monitors for	monitors

NAB 84

FM and TV, AM, FM and TV RF amplifiers. 166 2000 Batavia, Geneva, Ill. 60134 Color and resin filters

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ommunications th St., New York 10001

IcInnis-Skinner 1020

1628

426

9 Hwy., Box 937, Olathe, Kan. 66061 phics, Newscan, data prompters, newsroom and character generpment, production titlers. Staff: , Don MacClymont, Rod Herring, es, Judy Skinner, Marvin McInnis, ert, Brian Bruton, Dave Anderson, ne, Ross Dixon, John Wall, Dale

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condenser microphones, headmicrophone stands, booms and es.

stems 421 ukon Ave., Hawthorne, Calif. 90250 wer amps.

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ora Rd., Cleveland 44139

d 25 kw load resistors". RF meacomponents, RF wattmeters*, hanger loads, line terminations, orimeters, Staff: Bruce Bird, Leon Greg Johns, Leo Lesyk, Rick Nelert Heller, George Churpek.

le Systems 1405

, Boston 02125 onnectors, assemblies and repair or broadcast cameras, armoured e assemblies*, quick disconnects e assemblies*. Staff: J. Rath, J. R. Osburne, E. Konkel, J. Pirrons.

ommunications tants

657 acho, Las Cruces, N.M. 88005

noto

1705 Brunt St., Englewood, N.J. 07631 o tripods, fluid heads and accesquartz lighting, support/backquipment, light stands, TSE video -100 mini video light", Micro fluid ters, dollies, video accessories. ice Landau, Kriss Brunngraber.

Broadcast Equipment 1319

ad Ave., Westbury, N.Y. 11590 er UHF TV transmitting antenna low and medium power VHF and and dipole transmitting antennas,

polarized FM transmitting antenand ITFS transmitting and receive LPTV transmitters and communitennas for cellular radio. Staff: logner, Leonard King, Robert Pie Weinstein, Joe Nigro.

Electronics Corp. 228 10, Randolph, N.J. 07869

1603

2300 W., Salt Lake City 84119 2000 routing switcher*, micro--controlled graphic paint box sysphic system animation system*, anels for routing switchers includone address panels*, camera/recluding playback routing switchtape editing system, character s, telecine, videotape recorders, 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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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. **BP**I 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 15131 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-

NAB 84 i 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. MIW 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 511A 185 Forest Si., 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. 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 Avenue 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** 108 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'Andeac. **Calvert Electronics** 125 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., Bridgeport, 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 Sarlaty, Randy Tecicki. 1328

Cambridge Products Corp.1328244 Woodland Ave., Bloomfield, Conn.06002Staff: Alan Horowitz, Joyce Johnson.

Camera Mart1018456 W. 55th St., New York 10019Video production and post-production

Broadcasting Apr 30 1984 55 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

1012

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 Dunleavy, Dennis Schleich, Gordon Stafford.

Capitol Production Music1651750 N. Vine St., Hollywood, Calif. 90028

Systems 1014B

CAT Systems 401 E. 74th St., New York 10021

Computerized remote control system with color 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. Soll, 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 Ianna, Lew Levenson, Hugh Mullins, Fred Andersen.

Celestial Mechanix Inc.

612 Hampton Dr., Venice, Calif. 90291 Staff: Robert Benderson, Edward Dale, Leah Brown, Roseann Schyjer.

Celwave R.F. Route 79, Marlboro, N.J. 07746

441

202

1409

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

Central Dynamics

401 Wynn Dr., Huntsville, Ala. 35805 Video production switchers, FlexiKey digital video effects system, distribution amplifiers, master control switchers, signal distribution system, routing switchers, downstream keyer.

Centro Corp. 9516 Chesapeake Dr., San Diego 92123

1101

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

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

1610

509

9900 Baldwin Pl., El Monte, Calif. 91731 Portable battery power receiver with Dynex II*, Portable diversity battery powered re-ceiver 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, guad case. Staff: Paul Baughman, Ken Bourne, Gary Stanfill, Stan Fowler.

Channelmatic	328
821 Tavern Rd., Alpine, Calif. 92	001
Chemigraphic Products	659
301 Veterans Blvd., Rutherford, N	I.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, Calif. 90501 Batteries, belt packs for VTR's, power supply, burping charger*, bulk tape/cassette degaussers. Staff: Fred Benjamin, Diane Church

Chroma Digital Systems

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

Chyron Corp. 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.

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2037 0	Granville Av	e., Los A	ngeles 90	0025
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Cinemills Corp. 1140 3500 W. Magnolia Blvd., Burbank, Calif. 91505
Cipher Digital 1608 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 de vice. 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 push- button news mixer.
CMC Technology 1425 2650 Lafayette St., Santa Clara, Calif. 95050
Refurbishing of quad video and audio head components. Staff: William Fitts, Tony Min- aric, Willard Bell, Robert Pearson, Jim White- ly, Fred Koehler, Tommy Thompson, Bill Zim- borski.
CMX/Orrox 1639 3303 Scott Blvd., Santa Clara, Calif. 95030
Medium and large scale editing systems Staff: Philip Arenson, Allan Behr, Stanley Becker, Gary Schultz, Gary Hinderliter, Ec Bolger, George Cotroneio, Murray Bevitz Richard Slatin, David Orr, Bill Ludwig, Wil- liam Fink.
Colorado Video 1222 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, Lin- da Post, Chuck Beichlin, Jim Waterman, Ror Clowney, Scott Harris.
Colortran 1205 1015 Chestnut St., Burbank, Calif. 91506
Fresnels. Columbine Systems 118, 1323 7. Joshon Ride, Coldan Cole 2010
7 Jackson Bldg., Golden, Colo. 80401 Broadcast information system with traffic.

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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

600 W. Service Rd., Suite 101, Chantilly, Va. 22021

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.

Complicon

1405D

404

1508

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 manip-

ulation 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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Wagner, Rich Lee, Gary Carmichael, Sharon Stiles Connect-Air International 1764 50 37th St., NE, Auburn, Wash. 98002 Cable assemblies. Staff: Jess Moore, Ron lones 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. Conrac 1401 600 N. Rimsdale Ave., Covina, Calif. 91722 Color and monochrome monitors. Staff: Warren O'Buch, Robert Hofer, William Erns, 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 Abdnour, 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 McLough-**Control Video** 1157 1640 Dell Ave., Campbell, Calif. 95008 Videotape editors, automatic spot insertion equipment, synchronizers, tape code equipment. Convergence Corp. 1430 1641 McGaw, Invine, 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 Hwy., Holbrook. N.Y. 11741 Color correction systems. Countryman Associates 1720 417 Stanford Ave., Redwood City, Calif. 94063

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NAB 84

150 Florence Ave., Hawthorne, N.J. 07506

Crest Audio

204C

ter color phase equalizers, and identification of source system. Staff: Mervyn Davies, Bob Rainey, Bob Rainey Jr., Allen Witheridge, Skip Malley. 1504 Datatronix

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. 92806

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.

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107A

105

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1734

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

Delcom Corp. 1638 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

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

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De Wolfe Music Library

25 W. 45th St., New York 10036

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

Dielectric Communications 455 Tower Hill Rd., Raymond, Mass. 04071

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



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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.

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Kaman Sciences 1607 1500 Garden of the Gods Rd., Colorado Springs	Kobold of America Box 1, Marblehead, Mas
80933 Television and radio traffic and billing sys- tem designed and implemented on the IBM	Kutv Inc. 2185 S. 3600 West, Salt
In-house system 38 minicomputer. Staff: Richard E.W. Smith, Ray Durrance, George	Laird Telemedia 2424 S. 2570 West, Salt Character generators, e
Beattie, Ted Donovan, Vicki Clinebell. Kangaroo Video Productions 1151 10845 Wheatlands Ave., Suite C, Santee, Calif. 92071	multiplexer and access equipment. Staff: Ron Naum Shumsky, Dave Tom Lang, John Perr
Kangaroo video pack* carrying case, Na- gra recorders*, shoulder strap*, padded	Gary Bates, Dave Gold
and top loading camera cases for video cameras*. Staff: Steve Leiserson, Lynne Domash, Steve Sickman, Joni Maussang, Sarah Carlin, Taeko Kobyashi.	55 Chapel St., Newton, La-Kart matrix 6M for st tion utilizing component
Kavco 1509B 3931 Image Dr. Dayton, Ohio 45414	cess through Lake ma Bill Dwyer, Frank DeMay Sills, Roland Boucher,
Audio, video, RF and communications sys- tems, Kavcart VTR automation system, tape identification preparation center. Staff: Rus- sell Johnson, Ralph Johnson Jr., Carl Raasch, David Thomas, Heinz Kapui, Don Wurst, Harold Thompson, David Borden, James Klopf, Everett Bergman, Brooke McCarter.	Robert Hemenway, Jan Landy Associates 1890 E. Marlton Pk., Ch Ikegami cameras, Artel set modular television s and border generator a equipment. Staff: Jim L
Kavouras 1635 6301 34th Ave., South. Minneupolis 55450	Michael Landy, Brad Re Michael Keller.
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time atmospheric monitoring—meteorologi- cal services and database Triton X—graph- ics, animation and GOES weather satellite image processing equipment. Staff: Wil-	Larcan Communication 323 D Washington Blvd. Radio and TV transmitt
liam Schlueter, Peter Sappanos, John Traynor, Stephen Kavouras, Leroy Walker, David Schlueter, Ralph Manuel, Bill Nelson, Sarah Stewart.	Laumic 306 E. 39th St., New Yo Portable computer assi ing system, film-to-tag
Kay Industries 122 604 N. Hill St., South Bend, Ind. 46617	Staff: Bill Kradelman, Carter, John Shike.
Rotary phase converters for radio and TV transmitters. Staff: Aaron Katz, Bertha Katz.	Leader Instruments
Keylite Productions 1220	380 Oser Ave., Hauppar
333 S. Front St., Burbank, Calif. 91502 Lighting/grip equipment, and expendables, sales and rental. Staff: Victor Kunkel.	Video, audio and gen struments including v form monitors*, NTSC PAL and SECAM test of

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triaxial and camera connectors.

Video patch panels, patch cords, coaxial,

Kaman Sciences 1500 Garden of the Gods Rd., 80033

839 Stewart Ave., Garden City, N.Y. 11530

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KY and ProCam video cameras, tape-

Handler three-quarter inch and VHS video-

cassette recorders, VE series edit control-

lers, special effects generators, monitors/

receivers and accessories. Staff: Daniel

Roberts, Michael Messerla, Gary Horst-

korta, David Walton, John Brown, Steve Mar-

tin, Douglas DiGiacomo, Charles Roberts,

AM stereo exciter, high and low frequency extenders for remote telephone service, AM stereo receiver*. Staff: Leonard Kahn.

Kliegl Bros.

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NAB 84

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. 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.

1725 ss. 01945 223

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Lake City 84119 dual channel option. sories, video related Jones, Ken Wooton, e Tubbs, Ralph Lee, ry, Chuck Harwood. Iding.

Mass. 02160

station break automant switching and proatrix switcher. Staff: ayo, Walter Kelley, Phil r, Terrance Barnum, mes Gonsey.

1747A

herry Hill. N.J. 08003 l fiber optics, Liebensets. Interphase slate and machine control Landy, Steven Landy, eed, David Newborg.

1780

Redwood City, Calif.

nerators and source

ions 1626A

., Laurel, Md. 20707 tters.

ork 10016

sisted videotape editpe transfer system. Stuart Mann. Karen

uge, N.Y. 11788

neral purpose test invectorscopes, wavesync/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

> Broadcasting Apr 30 1984 72

signal generators, X-Y displays, meters and bridges. Staff: W. Brydia, S. Hirota, J. Mortellaro, R. Sparks, B. Storch, R. Storm, M. lacone, 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, Harry Glass.

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 Driel.

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

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Listec Television

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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.	6416 Variel Ave., Woodland Hills, Calif. 91367 Telecine system, multiplexer system, uni- plexer system. Staff: Marvin Hodges, Al-	Magnasync Moviola 1147 5539 Riverion Ave., North Hollywood, Calif.	
ogitek 613 320 Bering Dr. Houston 77057	bert Malang, Dave Greve, Walter Peterson, Robert Lawrence.	91601 V-1000, V-500, V-400, edgewriter*, special-	
Audio consoles", pro audio interface", pow- ar amplifiers ⁴ , audio modules, speakers, audio processors and accessories. Staff: Scott Hochberg, Tag Borland, Jody Patton.	Lyon Lamb Video Animation 1632A 4531 Empire Ave., Burbank, Calif. 91505 Animation system, videodisk mastering,	ist voice*, logging recorder. Magnum Towers 119 9370 Elder Creek Rd., Sacramento, Calif. 95829	
Pam Lontos Inc. 120A Box 741 387. Dallas 75374	computer graphics. Staff: Bruce Lyon, Jeff Stone, Doug Epps.	AM/FM towers, VHF/UHF TV antenna	
Sales motivational seminars. Staff: Pam ontos.	3M 1002 <i>3M Center Bldg.</i> 225-3s-05, St Paul 55144	towers, microwave system support towers, communications towers. Staff: Pete Smith, Larry Smith, Ron Smith, Alexander Perche-	
owel-Light Manufacturing 1309 175 10th Ave., New York 10018	Optical Recording Project division, Broad- casting and Related Products division,	vitch.	
ocation and studio lighting equipment. Staff: Ray Low, Dave Tearle, Amy Carter,	Magnetic Audio/Video Products division. Character generators, routing switchers, VTR's, videotape.	The Management627Box T, Aledo, Tex. 76008	
Marvin Seligman.	M/A-Com Video Systems 1004	Super Log TV computer system ⁴ , software [*] for Sky Log, Electric Log integrated traffic, billing, accounts receivable, affidavits,	
PB 405 8 Bacton Hill Rd., Frazer. Pa. 19355 Audio consoles, distribution amplifiers, compressors/limiters, studio furniture, tone trms, AM transmitters for PSRA and PSSA	63 Third Ave., Burlington, Mass. 01803 Design, build, installs and service micro- wave telecommunications and associated equipment including ENG central receive systems (4), ENG portable systems, inter-	avails and sales projections and sales order analysis programs, cable billing package. Staff: Pete Charlton, Don Stafford, Debbie Patrick.	
ervice, travelers information stations and STL use. Staff: Richard Crompton, Harry arkin, James Malone, Richard Burden.	city microwave systems, point-to-point mi- crowave systems, fiberglass ENG antennas with interchangeable feeds, interference	Marcom 306 Box 66507, Scotts Valley, Calif. 95066 C.N. Rood BAX 114 portable modulator tele-	
TM 1518 160 N. Las Palmas Ave., Hollywood, Calif. 0038	free ENG and fixed link fiber optic transmis- sion systems, helicopter ENG system, trans- mitter/receiver. Staff: E. van der Kaay, J. De- lissio, J. Morse, E. Stromsted, D. McCarthy,	phone bandwidth extention system. Staff: Martin Jackson, Ted Tripp, Doug Howland, Andy Thompson, Paul Rowan.	
1MI lighting units including freshets, floods, offlights, spotarcs, par lights, studio and	G. Hardy, C. Guastaferro, J. Fielek, D. Ar- cher, J. Hellyer, J. Van, R. Briggs, P. Brad-	Marconi Electronics 1615/1609 100 Stonehurst Ct., Northvale, N.J. 07647	
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Marshall Electronics 1331 Box 2027, Culver City, Calif. 90230

Staff: Leonard Marshall, Henry Shultz, Bill Cara, Joel Schwartz, Bob Sherwood, Dave Roberts.

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Box 661. Cleburne, Tex. 76031

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Maxell Corp. 1624 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.

MBI/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, Erlk Ryalen, Ed Fritz, Rick Jalsavec, Les Radvanyi, Ernie Moldowan, Marc Vallee.

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MCI/Quantel

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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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104 Micro Controls Box 728. Burleson, Tex. 76028

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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, camerá mount. Staff: Paul Tepper, John Wykes, Linda Tepper.

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Mitomo Co. 150 8-11 1-Chome, Jinnan, Tokyo 150	9
Modular Devices3250 Orville Dr., Bohemia, N.Y. 11716	25
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1301 A. Algonquin Rd., Schaumburg, Ill. 60196 AM stereo system, portable radio communications products.

1121

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.

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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 1145 65th St., Oakland, Calif. 94608

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Cordless microphones, communications systems and intercom systems; mini-receiver/cordless microphone system for video cameras". Staff: Peter Kalman, John Nady, Royce Krilanovich.

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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.

Nautel Maine 216

201 Target Industrial Cr., Bangor, Me. 04401 AM broadcast transmitters. Staff: Dave Grace, Wendell Lonergan.

NEC America

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130 Martin Ln., Elk Grove Village, 111. 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

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nance products for audio and video. Staff: Peter Lang, Sharon Goetzke. Nova Systems 1345 20 Tower Ln., Avon, Conn. 06001 **NTI America** 1014-D 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** 1505 1 University Pl., Hackensack, N.J. 07601 TV standards converter, Staff: H. Uehara, Tomoda 1307 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 Med-

vitz, Steve Brown, John Canton, Stew Ro-

mans, Ted Conroy, Barney Klein

NAB 84

micron Video 1748	
251 Roscoe Blvd., Canoga Park, Calif. 91304	
istribution amplifiers, sync generators, uting switchers, editing systems, synchro- zers, time code generators. Staff: Kimi kiyama, Mio Akiyama, D. Cadora, M. onda.	
rban Associates 607	
15 Bryant St., San Francisco 94107	
22/414A mono and stereo compressor/ niter*, programable parametric equaliz- *. Staff: Bob Orban, John Delantoni, Jes- Maxenchs, Sid Goldstein, David Dunetz, ob Burkhardt, Kevinn Tam, Dave Shantz.	
Ósawa & Co. 1716 hibaura 4-2-8, Minatoku, Tokyo 108	
Dtari Corp. 601	
Aultichannel open-reel audio tape record rs*, EC-400 series tape speed resolvers*	
luplicators and reproducers, videotape bading equipment, disk drives. Staff: Johr Carey, David Roudebush, Jack Soma, Mike	
appas, Steve Krampf, Steve Hill, Jeff Phil ps, Phil Sun, Barry Ross, Michael Bernard	

O'Connor Engineering 1103 100 Kalmus Dr., Costa Mesa, Calif. 92626 Camera support systems.

Scott Heineman, Larry Good, Tom Defigho,

Tom Sharples, Kae Wiley.

Pacific Recorders & Engineering 113 2070 Las Palmas Dr., Carlsbad, Calif. 92008 Audio production consoles*, cartridge recorders, studio systems, distribution amplifiers, turnkey systems, studio furniture.

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50 Locust Avenue New Canaan, Conn. 06840

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Staff: Jack Williams, Larry Zaiser, Mike Uhl, Sandy Berenics, Bonnie Smith, Gary Stigall, Robin Thomas.

Paltex

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

1773

1618B

1005

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

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 S1., Suite 224, Santa Monica, Calif. 90401

Faders. Staff: Gay Moses, Bob Rose, David McClain, Chris Thomson.

PEP 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

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

126

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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Charter Telecommunications Corp. Cable TV Construction

\$1,175,000

County Cablevision Development Co. County Cablevision Development Co. II. Cable TV Construction

\$1,500,000

Aries Communications, Inc. Radio Station Acquisition

\$1,700,000

Marin Broadcasting Company, Inc. Radio Station Acquisition

\$900,000

Atlantic Metrovision Corp. Cable TV Construction

\$750,000

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\$1,300,000

Mountain West Cable TV, Inc. Cable TV Construction

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Phoebus Manufacturing 1331C 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

635 Waverly St., Palo Alto, Calif. 94301 Video sequence processor

1409B

1517B

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 1615A	
10142 Fairmont Rd., Newbury, Ohio 44065	
Plastic Reel 170 240 W. 60th St., New York 10023 170)
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 illumina- tors and transparencies and associated op- tical test media, BBC zone plate charts* Staff: Ed Ries, Ed Taylor Jr., Anne Sum- mers-Ries, Elena Sherk, Dorel Cojan, Tony Reyes, C. Webster	
Potomac Instruments 100 932 Philadelphia Ave., Silver Spring, Md 20910	
Staff: Guy Berry, Bill Casson. Bob Ellen- berger, Dave Harry.	
Precision Echo 1617 3105 Patrick Henry Dr., Santa Clara, Calif.	,
95054	
	/
95054 Video disk frame store animation recorder, reproducer system, video compression sys- tem, videodisk recorder*. Staff: Jim Crouch, Kathie Farkas, Steve Goze, Tom Parkinson, Jackie Streeter, Bob Werbicki,	/
95054 Video disk frame store animation recorder, reproducer system, video compression sys- tem, videodisk recorder*. Staff: Jim Crouch, Kathie Farkas, Steve Goze, Tom Parkinson, Jackie Streeter, Bob Werbicki, Ron Zimbrick, Barry Rubin. Prismagraphics 110A	/
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 112 Procart 112 7012 27th St., W., Tacoma, Wash. 98466 114 Tape cartridges. Staff: Tim Schwieger, Dor Kalmokoff, Bernice McCullough, Irv Law 143 Procommotion 434 350 W. Green Tree Rd., Milwaukee 53217	
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, Bon Zimbrick, Barry Rubin. Prismagraphics 110A Box 703, Milwaukee 53201 110A Procart 112 7012 27th St., W., Tacoma, Wash. 98466 112 Tape cartridges. Staff: Tim Schwieger, Dor Kalmokoff, Bernice McCullough, Irv Law Procommotion Procommotion 434	
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 112 Procart 112 7012 27th St., W., Tacoma, Wash. 98466 114 Tape cartridges. Staff: Tim Schwieger, Dor Kalmokoff, Bernice McCullough, Irv Law 143 Procommotion 434 350 W. Green Tree Rd., Milwaukee 53217	

Equipment, tools supplies for electronic printed circuit board maintenance and repair. Staff: Daniel Schoen. Corey Parry, Kathleen Schoen.

QEI Corp.

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

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/Telesvnc

33 W. 60th St., New York 10023

1401-D

307

626

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 console.

1432 Quanta Corp. 2440 S. Progress Dr., Salt Lake City 84119

Quante Corp. 1216A 3350 Scott Blvd., Bldg. 15, Santa Clara, Calif. 95051

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.

1405B Quickscan Systems 9465 Wilshire Blvd., Beverly Hills, Calif. 90212 1105 Quickset

3650 Woodhead Dr., Northbrook, Ill. 60062 Instrument positioning equipment. Staff: Mark Stolman, John Andre, Paul Mooney, Dennis Ryan.

217 RAB 485 Lexington Ave., New York 10017

Radac Marketing 804 Main, Trenton, Mo. 64683

Radio Arts 418 210 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, Mary Perkins.

Radio Systems

Box 356, Edgemont, Pa. 19028 Phono preamps, distribution amplifiers, stu-

dio timer, ESA-10 broadcast console. Staff: Daniel Braverman, Neil Glassman, Andy Lovell, Edward Corse.

Ramko Research

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

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. McIIwaine, 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

1000

1111

341

1520

1416

415

1219

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

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

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.

Recortec

218

213

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.

3176 Pullman St., Suite 106, Costa Mesa, Calif. 92626

475 Ellis St., Mountain View, Calif. 94043 Videotape evaluators. Staff: Lester Lee, Eldon Corl, Edwin Wong, Ed Bloom.

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4200 Perimeter, Oklahoma City 73112 Architectural planning, consulting, design and engineering services, LPTV facility package design and equipment.
Register Data Systems128Box 1246, Perry, Ga. 31069
Regis-BLT1522 Bluejay Way, Woodside, Calif. 94062
Reiman Syndication Network1725400 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 re- corders.
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, 60/3/
Electron tubes, RF power transistors and amplifiers, power semiconductors, silicon controlled rectifiers. Staff: Ian Stewart, Jim Matzas, Richard Thomas, David Gilden.
Riviera Broadcast Leasing1784220 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 Ron McGraw, Butch Postel, Ed Mumford, Dean Huntsinger. Roh Corp. 3603 Clearview Pl., NE, Atlanta 30340 Intercom/PL and IFB systems, digital announcement systems. Staff: Jerry Levy, Jer-

NAR 84

Giordano, Gary Frederick, Bryan Hawkins,

ry Huber, Dan Garrigan, Frank Harvey, Tammy Smith. Rohde & Schwarz 1203

13 Nevada Dr., Lake Success, N.Y. 11042

1634

1235

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.

Bosco Laboratories 36 Bush Ave., Port Chester, N.Y. 10573

Roscor Corn. 1181 6160 W. Oakton St., Morton Grove, 111. 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

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.

511 11th Ave. South, Minneapolis 55415 LPATS-Lighting position and tracking system*

RTNDA

1501

1740

1110

1735 DeSales St., NW, Washington 20036 Staff: Ed Godfrey, Lou Adler, Lou Prato, Dean Mell, Ernie Schultz, Eddie Barker, Joe Tiernan

RTS Systems

1142

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, VCA's 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

416

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

8650 Hayden Pl., Culver City, 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 SCA Communications 508 1 W. 30th St., New York 10001 SCA receivers.

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Schneider Corp. of America	1403	Staff: John Phelan, Michael Pettersen.
400 Crossways Park Dr., Woodbury, N.Y. TV lenses for cameras with one-half,	two-	Sigma Electronics 1333 1830 State St., East Petersburg, Pa. 17520
thirds, one- and one-and-one-quarter pick-up tubes with 14 by 9 mm ENG zoom with 2x range extender and 15x	S/EFP	Generators, video processing amplifiers, distribution amplifiers.
angle studio lens*. Staff: Bob Jones, Marcin, Gunter Hess, Horst Stahl.	-	Singer Broadcast Productions 101A 875 Merrick Ave., Westbury, N.Y. 11590
Scientific-Atlanta 3845 Pleasantdale Rd., Atlanta 30340	1017	FM exciters, stereo generator, AM and FM transmitters.
Satellite earth stations, video receivers tection switches, video exciters, contro tems, RF matrix systems, 11-meter t portable earth station, DAT32 and DA digital audio terminal. Staff: Sidney 1	ans- AT800	Skotel Corp. 1126 1445 Provencher, Brossard, Quebec J4W 1Z3 Time code readers and generators, digital metronome.
Phil Wooden, Del Bothof, Mike Kelly, Kaplinsky, Jay Levergood, Jamie Hut	Alex	Warren R. Smith 1717 Drawer C, Ocean Gate, N.J. 08740
Pietras, Gerry Rosenblatt, Paul Huff Martha Schulte, Betsy Crawley, John con, Trent Davis, Don Crumm, Vin God Dan Landreth.	n Ba-	SMPTE 1632 862 Scarsdale Ave., Scarsdale, N.Y. 10583 *Television Image Quality * book. Staff: Lynnette Robinson, Alex Alden, Peg Caggiano,
Scribe Recorders	214	Barry Detwiler, Dorothy Smith.
1618 Orrington, Suite 320, Evanston, III. c Audio tape cassette recorders. Staff: I		Solid State 1723 2633 15th St., NW, Washington 20009
Beaman, Erik Horvitz.		Audio mixing systems and studio comput- ers.
Sennheiser 48 W. 38th St., New York 10018	1137	H.A. Solutec 1517
Headphones and microphones includin traminiature electret lavalier microph Staff: G. Langdon, T. Tudisco, J. Ta	one	4360 Iberville St., Montreal, Que. H2H 2L8 Staff: Gilles Fortin. Ernest Grondin, Michel Beland.
Burke, B. Grover, C. Rancilio, K. Kawar D. Speelge, C. Muse, J. Munchow, P.	mura, Wal-	Solway Inc. 139 5010 Johnson St., Hollywood, Fla. 33021
and a second secon	1616	Sono-Mag 707 1833 W. Hovey Ave., Normal, 111. 61701
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ters, audio distribution amplifiers, a n bridge, and intercom system, SAT-1 a leveling for satellite receivers*, MLD-5 line driver. Staff: Franklin Miller, Ric Schumake.	audio mic-	Sony Broadcast Products Co. 1200 Sony Dr., Park Ridge, N.J. 07656 SOAR, frequency synthesis VHF wireless microphone*; sync master, time-code
Sharp Electronics 10 Sharp PI., Paramus, N.J. 07652 XC-900D color camera, XC-800 color era, XC-803TX triax control system*, XM-1300 high resolution rack mount	, and color	based synchronizer*; video editor interface option for MCI/Sony JH-800 compact con- sole*, two channel audio recorder*, CD modular system for compact disk play- back*, Betcam half-inch recorder-camera, high definition television system.
monitor*. Staff: Robert Garbutt, Neil Peter Gloeggler, Ron Colgan, Ron P. Bob McNeill, Paul Insco, Bruce Pollac	arker, k, Liz	Soper Sound Music Library 1620B Box 498. Palo Alto, Calif. 94301
Sauter, Hank Miura, Mike Yamaguchi. Shintron Co. 144 Rogers St., Cambridge, Mass. 0214.	1417	Series IX, X and XI music series libraries. Staff: Harn Soper, Karen O'Neill, Kathy Wolff.
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Shively Labs 86 Harrison Rd., Bridgeton, Me. 04009	623	Sound Technology 500 1400 Dell Ave., Campbell, Calif. 95008
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nas, FM panel antennas, UHF panel a nas, RF switch, RF patch panel, m switch. Staff: Paul Wescott, Ed St Charles Peabody, Bob Surette, Steve lins, Paul Ricci, Carroll Cunningham, Cauthen, David Lafrenais, Bob Beattie Butler, Dr. Vittorio Raviola, Gildo Ver Aldo Laus, Larry Hall.	anual hively, e Col- Bob e, Tom	Audio Products4611324 Motor Proys, Hauppauge, N.Y. 11788Series 30 TV edit console*, serial consoleinterface*, series 34 post production con-sole*. Staff: Michael Tapes, Paul Galburt,Lee Pomerantz, Carl Schiovone, MikeCuneo, Jim Overocker.
Shook Electronic Enterprises 6630 Topper Pwy., San Antonio, Tex. 78. Mobile TV production vehicles. Staff: E Shook, J. Hollenbeck Shook.		Soundcraft Electronics 219 20610 Manhattan PL, Suite 120, Torrance, Ca- lif. 90501 SAC 2000° audio console, series 20 two- teach mantar recorder/pacted/pactal
Shure Brothers 14 222 Hartley Ave., Evanston, Ill. 60204 FP31 mlxer*, SM83-CN lavalier m phone*, SM63L microphone, M267 m		track master recorder/reproducer*, multi- track recorders/reproducers. Staff: Wayne Freeman, Betty Bennett, Graham Blythe, Charlie Day, Shane Morris, Linda Frank, Larry Schara, Gary Lynn.

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Sprague Magnetics 705 15904 Strathern St., Suite 12, Van Nuys, Calif. 91406
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Stage Lighting Distributors1128346 44th St., New York 10036
Digital lighting control equipment, autoco- lor, indexing color wheel for lighting fixtures, stage and studio lighting and supplies. Staff: Robert Riccardelli, Jack Forster.
Stainless 1315
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AM, FM and TV towers, Verda lightning de- terrent. Staff: Henry Guzewicz, Robert Far- rington, Jess Rodriguez, John Windle, Owen Ulmer, Peter Starke, Ronald Pagnotto, Harold Balshukat, H. William Guzewicz.
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Announcer's headphone. Staff: G.L. Bid- well III, George Alexandrovich.
Stantron 1132 6900 Beck Ave., N. Hollywood, Calif. 91605
Cabinets and furniture. Staff: Guy Tessier, F.
Weiss, Dick Turchen. Steenbeck 1424
9554 Vassar Ave., Chatsworth, Calif. 91311 ST 941V video-sound editing table*, film-to-
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Symtec 1522 15933 W. 8 Mile Rd., Detroit 48235	
Staff: Paul Ambrose. Georgiann Mannino, Clive Catchpole.	
System Associates1331-E5801 Uplander Way. Culver City. Calif. 90230	
Brokers of used TV equipment. Staff: Billy Seidel, Walter Shubin.	
Taber Manufacturing7112468 Embarcadero Way, Palo Alto, Calif. 94303	
Model 409 bulk manual tape degausser, Model 1500 automatic bulk lape de- gausser*, replacement audio heads for pro- fessional recorders, overhaul services on audio/video recorders. Staff: Veldon Lever- ich, Diane Leverich, Robert Souza, Florin Ar- sene.	
Taft Broadcasting13681 Canal St., Boston 02114	
Tamron164017-11, 7 Chome, Takinigawa. Kita-Ku, Tokyo	
Zoom lenses for color cameras.	
Tapscan1062100 Data Park, Suite 202, Birmingham, Ala.35244	
Tascom/TEAC13047733 Telegraph Rd., Montebello, Calif. 90640Audio products.Staff: Barry Goldman, Anne Pumphrey, Jimmy Yamaguchi, Anders Madsen. Marc Chover, Bill Mohrhoff, Yuki Oshikawa, John Bliese, Tom Yamaguchi, Bob Lowig, Dave Oren, Bruce Black.	
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control consoles*. Staff: Roger Volk, Paul Rabinovitz, Paul Carlsen, Mike Griffith.
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Telegen (TDF) 806 1742 Willow Rd., Suite 206. Palo Alto, Calif. 94304
Telemet 1202
185 Dixon Ave., Amityville, N.Y. 11701 Computerized routing switcher. Staff: Eu- gene Murphy, Seymour Hamer, Robert Grif- fiths, Alex Kwartiroff, Vincent Delmato, Leo Lazarus, Ivan Slovak, Tony Silva.
Telepak San Diego1928360 Clairemont Mesa Blvd., Suite 102, SanDiego 92111
Telescript1407445 Livingston St., Norwood, N.J. 07748
Digital prompting system [*] , monitor prompt- ing service. Staff: Bob Swanson, Rich Mergner, Bill Coomes, Jerry Swanson, Phil Miller, Kay Hyde, John Lennan.
Telesource Communications Services 1607-B
730 E. Highland Ave., Phoenix 85011 Television and radio newsroom manage-
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ment and editing system, in-station electionsystem.Staff:BobEarly, Marilyn Taylor,Ryan Nolan.1700Television Engineering1700580 Goddard AveChesterfield. Mo. 63017ENG vans, complete systems, studios and remote broadcast vans.1216Television Equipment Associates1216
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Trident USA 633 652 Glenbrook Rd., Stamford. Conn. 06906 Synchronizers—VFM, Trimix, series 70, 80,
80B, TSM. Staff: Malcolm Toft, Jack Hart- field.
Trompeter Electronics12118936 Comanche Ave., Chatsworth, Calif. 91311
Coax patching, cable assemblies, connec- tors and accessories. Staff: E. Trompeter, S. Trompeter, Hap Gladish. Dick Coleman, Dave Vernon, Ev Westfahl, Bill Lipsett, Paul Cox, Herb Hatzhold, Tracy Hunter, Ross Gaines.
True Time Instruments6433243 Santa Rosa Ave., Santa Rosa, Calif. 95401
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Turner Broadcasting Systems6211050 Techwood Dr., NE, Atlanta 30318
Tweed Audio31312 Ilex Dr., Newbury Park, Calif. 91320
Tyler Camera Systems18414218 Aetna St., Van Nuys, Calif. 91401
Ultimate Support Systems6511331 Red Cedar Cr., Fort Collins, Colo. 80524
Ultimatte Corp. 1642 18607 Topham St., Reseda, Calif. 91335
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UMC Electronics 114 460 Sackett Point Rd., North Haven, Conn. 06473
Uni-Set Corp. 1236 449 Avenue A, Rochester, N.Y. 14621
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generators and character generators. United Research Laboratory 604 16 E, 52d St., New York 10022	
UNR-Rohn 1605B Box 2000, Peoria, III. 61656	
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UPI news and business office computer sys- tems. Custom News, radio network. Staff: Paula Baird, Gordon Rice, Richard Boggs, Bill Adler, Jim O'Keefe, Bruce Kanner, Gary Neeleman, Bill Ferguson, Phil Stone, Ed De- Long.	
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Vdo-Pak Products 220 164 Howes St., Box 67, Port Orange, Fla. 32019	
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store synchronizer, built in time-base corrector and TV pattern generator. Staff: Peter Kaminsky, Gerhard Freitag.

Videomagnetics

155 San Lazaro Ave., Sunnyvale. Calif. 94086 Quad video head refurbishing, random access videocassette changer". Staff: Ted Barger, Tony Korte, Denise Shelton, Eduardo Zanetta.

Videomedia

211 Weddell Dr., Sunnyvale, Calif. 94086 Editing and control systems*. Staff: Bill Stickney, Jim Thibodeaux, Hank Wilks, C. Legois, Sherry Branch, V. Maranta, L. Sorby, Herb Kneiss, S. Hall, Tom Grancey, Ken Royer, R. Dorsa.

VideoStar Connections 3390 Peachtree St., Atlanta 30326

1122

1

2

1109

1308

Ku and C-band closed circuit satellite communications for news, sports and teleconferencing. Staff: William Papa, Kenneth Leddick, Harry Mahon, John Davis, Jeffrey Rothfus, Bryan Allen, Roy Wiggins, Robert Megar, James Black Jr.

Videotek

1633

125 N. York St., Pottstown, Pa. 19464 Waveform monitor with line-select, routing switcher series, sync generator, audio program monitors, vectorscope, distribution amplifiers, color monitors. Staff: Phil Stevaert, Peter Choi, Dan Antonellis, Barry Gardner, John Raczenski, Eric Walhberg, Emery Grady, Ron Moyer, Don Taylor, Cary Sagady, Dick Brooks, Jim Mauger, Rick Hollowbush.

Viking Cases

1731 10480 Balz St., NE, St. Petersburg, Fla. 33702 Staff: Art Stemler, Bob Stemler, Bruce Stemler.

Vital Industries

1212

3700 NE 53d Ave., Gainesville, Fla. 32601 Production switchers, station automation systems, digital effects unit, distribution amplifiers, routing switchers, machine controllers

VJ Electronics/Anchor Systems 1618C 913 W. 223 St., Torrance, Calif. 90502

Rackmount, porta-com cabled intercoms, snakes. Staff: Evan Landrum. Jim Van Wary.

Ward-Beck Systems 1224 841 Progress Ave., Scarborough Ont. MIH 2X4 MicroCom communications system*, TV and radio audio consoles, distribution am-

plifiers. Staff: Ronald Ward, Rodger Beck, Arthur Schubert Jr., Peter Brentnell, Duke McLane, William McFadden, Prodromos Constantinou, Eugene Johnson.

Wavetek

1782

875 Maude Ave., Mt. View, Calif. 94043

Wegener Communications

515

150 Technology Park, Norcross, Ga. 30092 Satellite and microwave transmission equipment for radio networks and stereo TV audio, teletext equipment. Staff: Bob Placek, Heinz Wegener, Ned Mountain, Jon Thrasher, Peggy Placek.

Western Group

1134

121

3250 Wilshire Blvd., Los Angeles 90010 Laboratory-quality precision registration and optical alignment device for portable production and ENG cameras. Staff: John Lee, John Welland.

Wheatstone 249 N. Eric Dr., Palatino, Ill. 60067

Audio mixing consoles.
Whirlwind 329 100 Boxart St., Rochester, N.Y. 14612
White Instruments 1318C Box 698, Austin, Tex. 78767
Mik Power & Video 1229 6255 Ventura Blvd., Suite 10001, Encino. Ca- if. 91436
Staff: Leslie Spitzer, Cynthia Hastings, Tom Hamilton, George Newman, George Ko- betski, Ray Wilk.
Wilkinson 305 1970 W. 60th Ave., Arvada, Colo. 80003
Vinsted 1238
801 James Cr., Minneapolis 55431 Editing consoles, tape and film storage sys- ems, videotape and film trucks, equipment cabinets, dubbing racks and post-produc- ion consoles. Staff: Gerald Hoska, Brenda Sabin, Charles Johnson, Greg Hedlund, Randy Smith, Nancy Walker.
Nireworks 1014C 180 Hillside Ave., Hillside, N.J. 07205
Multipin input microphone splitters*, phan- om power supply components*, prism components*, metric length mic and coax cable*, 12-foot multitails*, multitrunks*, mi- crophone multicable components group, nicrophone cables, multicables, cabletes- er, coaxial cables. Staff: A. DiCicco, G. Krulewicz, L. Williams.
Wold Communications 1515 10880 Wilshire Blvd., Los Angeles 90024
Satellite distribution services, earth stations, news origination facilities and transmission equipment, satellite subcarrier transmission services, radio point-to-point transmission services. Staff: Robert N. Wold, Gary Worth, Robert E. Wold, Paul Johnson, Clayton Pack- ard, Ian Joseph, Dorothy Marsh, Ellen Kim- nelman, Thomas Bartunek, Mark Wall- nauser, Nell Donovan, Jon Schwenzer.
Nolf Coach 1317 7 B St., Industrial Park, Auburn, Mass. 01501 NG/EFP vehicles*. Staff: Richard Wolf, Marcia Germagian, Mark Leonard.
Frank Woolley & Co. 1405-C
529 Franklin St., Reading, Pa. 19602 Motionmaster video animation system. Staff: Frank Woolley, Larry Whalen.
Norld Tower 519 Box 405. Mayfield, Ky. 42066
Broadcast towers and related services. Staff: M. Sholar, Jeff Sholar, James Wilson,
Don Prescott. NSI 1104
I N. Road, Box B. Bedford, Mass. 01730

41 N. Road, Box B, Bedfort, Mass. 01730 Weather graphics* and computerized sports scores. **Staff:** Dave Miller, Russ Christie, Alan Riley, Roy Reiss, Ray Costello, Grady Young, Ron Strahm, Dave Devlin, Bob Draper, Todd Glickman.

1340

Yamaha International

6600 Orangethorpe. Buena Park, Culif. 90620 REV-1 digital reverbation device* permitting separate control of up to 40 early reflections, YDD-2600 digital delay device with various modes of operation*, R-1000 digital reverb effects device*, mixing consoles, recording consoles, signal processing and effects devises, power amplifiers, load speakers systems. **Staff:** Bob Davis, Phil Moon, John Gatts, Craig Olsen, Jeff Wilson, Gerry Tschetter, Craig Bullington, Steve Baxter, Gary Davis.

Mobile exhibit

NAB 84

Mobile exhibitors
Ampex Corp. 38
401 Broadway, Redwood City. Calif. 94063 Andrew Corp. 8, 9, 11, 12
10500 W. 153d St., Orland Park, Ill. 60462
Antenna Technology Corp. 6
8711 E. Pinnacle Peak Rd., Suite C-103, Scotts- dale, Ariz. 85255
AT&T Communications 4 Route 202-206, Bedminster, N.J. 07921
Avantek 7 3175 Bowers Ave., Santa Clara, Calif. 95051
Broadcast Microwave Services 60 7320 Convoy Ct., San Diego 92111
Canadian Mobile TV 47
Comtech Data Corp.42-44350 N. Hayden Rd., Scottsdale, Ariz. 85257
Dalsat 24 Box 1960, Plano, Tex. 75074 24
EECO 36 1601 E. Chesinut St., Santa Ana, Calif. 92702
Encom 10, 13, 14
Harris Corp. 1, 2 Box 4290, Wisman Ln., Quincy, Ill. 62305
Hubbard Broadcasting213415 University Ave., St. Paul 55114
Kavouras 67 6301 34th Ave., South, Minneapolis 55450
GeC Michael 28
Sefton Park, Bells Hills. Stoke Pages. Slough, Berkshire, England SL2 4HD
Microdyne 22 491 Oak Rd., Ocala, Fla. 32672
Motorola C&E 5
1301 E. Algonquin Rd., Schaumburg, 111. 60196
MZB & Associates 41 4203 Belowuy, Dallas 75234
Pinzone Communication Products 25 10142 Fairmont Rd., Newbury, Ohio 44065
Satellite Group 23
Scientific-Atlanta 17-19 Box 105600, Atlanta 30348
Shook Electronics39,406630 Topper Pkwy., San Antonio, Tex. 78233
Sony Corp. 48-51 1600 Queen Anne Rd., Teaneck, N.J. 07666
Wolf Coach 45 7 B St., Auburn Industrial Park. Auburn, Mass.
01501

Networks

(all suites at the Hilton unless otherwise noted)

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Affiliate Relations

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ABC Radio

Hilton 29-118

Staff: Ben Hoberman, Henry Kavett, Edward McLaughlin, Frank Atkinson, John Axten, Bill Battison, Bob Benson, Leslie Benson, Darryl Brown, Bob Chambers, Kent Coughlin, Harry Curtis, Rick Devlin, Bob Donnelly, Dan Forth, Vincent Gardino, Chuck King, Stuart Krane, Willard Lochridge, Dick Martinez, Bill McClenaghan, Sam Patterson, Linda Stern, Andrew Vogel, Mike Winter, Tom Rounds, Suzanne Baron, Don Bustany, Peter Flannery, George Phillips, Kathy Lavinder, Hal Bruno, Paul Harvey, Casey Kasem, Bob Kingsley, Charles De-Bare, Don Bouloukos, Andy Ockershausen.

CBS Inc.

51 W. 52d St., New York 10019

CBS/Broadcast Group

Staff: Gene Jankowski, Tom Leahy, James H. Rosenfield.

CBS-TV Network MGM Grand 1661A Staff: Tony Malara.

CBS Radio

Hilton 29-102

Staff: Neal Pilson, Robert Hosking, Richard Brescia, Michael Ewing, Robert Kipperman, Joe Dembo, Gene Lothery, Robert Hyland, Cornelius Knox, Eric Salline, Peter Acquaviva, John Burrows, Steve Downes, David Kleinbart, Betty Hayter. David West, Steven Epstein, Nicholas Kiernan, Ed Kiernan, Robert Leeder, Eli Kaufman, Sylvia Hughes, Norm Ginsburg, Robert Vanderheyden, Larry Cooper, Susan Jacobi, Mike Ludlum, Bernie Krause, Hal Kormann, Frank Murphy, Helene Bleiberg, Anna Mae Sokusky, Nancy Johns, Frank Cammarata, Fred Barbieri, Jim Burns, Jim Butler, Erik Disen, Mort Goldberg, Howard Immekus, Joe McCoy, Jack Miller, Larry Solow, John Twigg, Dan Ingram, M.G. Kelly.

Affiliate Relations

Staff: Scott Michaels, Dick Goldstein, Heather Regan, Dorothy Botts, Eunice Lewis, Paul Levinson, Joe Eustace.

Operations & Engineering

Staff: George Shannon, Dave White, Joe Flaherty, Bob Hammer, Bob Norvet, Hy Badler.

Mutual Broadcasting Hilton 2964 1755 S. Jefferson Davis Hwy, Arlington, Va.

22202 Staff: Martin Rubenstein, Jack Clements, Ben Avery, Bill Wisniewski, Craig Whetstine, Mark Feldman.

NBC Inc.

30 Rockefeller Pl., New York 10020

Staff: Ray Timothy, Robert Walsh, Irwin Segelstein.

NBC-TV Network MGM Grand 1862A, Hilton 560

Staff: Pierson Mapes, Ric Quakenboss.

NBC-TV Affiliate Relations

Staff: Anthony Cervini, William Kelley, Diane Healey, Jim Ritter, Eric Bennorth. Mort Dil-

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Staff: John Tyler, David Hubschman, Bob Bruton, Carlos Hurd, George Williams, Ellyn Ambrose, Dave Gerety, Jim Stansell, Laddie Schaeffer, Jim Key, Greg Daugherty, Cris Sites.

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 Hilton 2919

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 Staff: Glen R. Mahone, Robert Dockery Jr.

SIN Television Network 460 W. 42d St., New York 10036

Staff: Rene Anselmo, William Stiles.

Transtar Radio Networks Hilton 2869 620 S. Pointe Ct., Suite 185, Colorado Springs 80906

Staff: Terry Robinson, Ivan Braiker, Ron Ruth, Larry Shipp, John Lodge, Robert Bein, Clark Jones, Tim Roberts.

Unity Broadcasting Network Hilton 10 Columbus Cr., New York 10019

Staff: Eugene Jackson, Sydney Small, Joan Logue-Henry, George Edwards, Del Raycee.

Brokers

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Bill-David Associates Royal Las Vegas 2508 Fair Mount St., Colorado Springs 80909 Staff: Bill Martin.

Blackburn & Co. 669 East 1111 19th St., NW, Washington 20036

Staff: Jim Blackburn, Richard Blackburn, Tony Rizzo, Joe Sitrick, Alan Tindal, Roy Rowan, Jay Bowles, Howard Stassen, Bud Doss, Charles Kurtz, George Otwell.

Broadcast Properties West Sands 221 First Ave., Seattle 98119 Staff: Chester Coleman, Charles Kinney.

Business Broker Associates

399 Somerville Ave., Chattanooga 37405 Staff: Alfred Dick.

Robert A. Chaisson Inc.Sands50 Locust Ave., New Canaan, Conn. 06840Staff: Robert A. Chaisson.

Chapman Associates Radio—15-121, TV—MGM Grand 5510

1835 Savoy Dr., Suite 206, Atlanta 30341 Staff: John Emery, Corky Cartwright, Bill Cate, Brian Cobb, Elliot Evers, Warren Gregory, Bill Lochman, Greg Merrill, Ernie Pearce, Ray Stanfield, Peter Stromquist, Bob Thornburn, Bill Whitley, Mitt Younts, David LaFrance, Marty Lomonaco, Ron Hickman, James Mergen, Randy Jeffrey.

 Donald K. Clark
 1569

 Box 1065, Merritt Island, Fla. 32952
 Staff: Donald Clark, Anne Clark.

R.C. Crisler & Co. 1749-51 Suite 801. 580 Walnut St., Cincinnati 45202 Staff: R. C. Crisler, Clyde Haehnle, Larry Wood, John Babcock, Carl Ward. William A. Exline 26-121 4340 Redwood Hwy:, San Rafael, Calif. 94903 Staff: Bill Exline, Andrew McClure.

Wilt Gunzendorfer & Associates Hilton 2210 Hastings Dr., Belmont, Calif. 94002 Staff: Wilt Gunzendorfer.

Norman Fischer & Associates MGM Box 5308, Austin, Tex. 78763 Staff: Norman Fischer, Jay Harpo, Barry Sherman

Milton Q. Ford & Associates 1330-31 5050 Poplar Ave., Memphis 38157 Staff: Milton Q. Ford.

Frazier, Gross & Kadlec Aladdin 4801 Massachusetts Ave., Suite 390. Washington 20016

Staff: Charles Kadlec, Susan Harrison, Arthur Dietz, James Bond Jr.

Gammon & Ninowski 650 Suire 306, 1925 K St., Washington 20006 Staff: Jim Gammon, Ron Ninowski, Carl Fielstra.

Dan Hayslett & Associates 2530 11311 N. Central Expwy., Dallas 75243 Staff: Dan Hayslett, Mary Hayslett,

Hogan-Feldmann Hilton 16255 Ventura Blvd., Suite 219, Encino, Calif. 91436

Staff: Arthur Hogan, Jack Feldmann.

The Holt Corp.Caesars PalaceSuire 205, Westgate Mall. Bethlehem, Pa. 18017Staff: Arthur Holt, Bernard Fuhrmann.

Horton & Associates North tower Box 948, Elmira, N.Y. 14902 Staff: Keith Horton, Mel Stone, Jack Aldworth, Bill Cook.

Kalil & Co. Hilton 3438 N. Country Club. Tucson, Ariz. 85716 Staff: Frank Kalil, Howard Duncan.

Kepper, Tupper & Co. Caesars Palace 2508A W. Route 120, McHenry, III, 60050 Staff: William Kepper, John Tupper.

H.B. LaRue MGM 44 Montgomery St., San Francisco 94104 Staff: H.B. LaRue, Harold Gore.

Robert O. Mahiman 2962 1 Stone Pl., Bronxville, N.Y. 10708 Staff: Bob Mahiman.

R.A. Marshall & Co. Hilton 508A Pineland Mall Office Center. Hilton Head Island, S.C. 29928 Staff: Bob Marshall, Marti Marshall, Jack McVeigh, Billie McVeigh.

Reggie Martin & Associates 26-121 731 S. Mashta Dr., Key Biscayne, Fla. 33149 Staff: Reggie Martin, Ron Jones, Marge Martin.

Ralph Meador Box 36. Lexington, Mo. 64067 Staff: Ralph Meador. 310

George Moore & Associates Frontier Suite 712; 6116 N. Central Expwy., Dallas 75206

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Sherman & Brown Associates Caesars Palace 4770 Biscayne Blvd., Suite 600, Miami 33137

 Staff: Gordon Sherman.

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 MGM Grand

 575 Madison Ave., New York 10022

 Staff: Howard Stark (by appointment only).

 Edwin Tornberg & Co.
 MGM Grand

 Box 8698, Washington 20011

 Staff: Edwin Tornberg.

Reps

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437 Madison Ave., New York 10022

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Hillier, Newmark, Wechsler & Howard 277 Park Ave., New York 10072

2908

Staff: Bernard Howard, Phil Newmark, Bill Froelich, Ira Wechsler, Chuck Hillier, Nick Imbornone, Patti Fahn, Elaine Pappas, Jacqui Rossinsky, Jerry Charm, Jane Engel, Pat Byrne, Valerie Tuttle, Bob Steadman, Georgann Lavelle, Rocky Crawford, Esther Felsenfeld.

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460

MGM Grand

Seitel MGM Grand 750 Third Ave., New York 10017

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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.

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A.C. Nielsen Co. Sahara Nielsen Plaza, Northbrook, 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

> Broadcasting Apr 30 1984 102

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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.

Sahara

Hilton

10 Columbus Cr., New York 10019 Staff: A.H. Prager, Bob McGarvey, W.F. Myers, Al Altman.

T.A. Associates

SESAC

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.

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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.

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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 vesterday (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 all-time 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 years.

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



Osgood

It Takes" extravaganza featuring a multimedia show. Called, "An Audio/Visual Cele-bration 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 "oneon-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 Band.

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)-WQKX(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, wKTI(FM)-WTMJ(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, KLZ(AM)-KAZY(FM) Denver; Terry Donner, WHN(AM) 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 Rodriguez, 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, коам-тv Pittsburg, Kan. Panelists: James Blake, кsтр-тv 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., wive-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, wкяс-тv Cincinnati; Lee Minard, квтv(тv) Denver; Donald North wкяс-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.).