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# RadioWorld®



**Running  
Radio**  
See pp. 39-50

Vol 18, No 23

Radio's Best Read Newspaper

November 16, 1994

## FCC Increases Limit For Minority Owners

by Thomas Pear  
and Lucia Cobo

**WASHINGTON** In an effort to increase minority ownership, the FCC last month unanimously voted to allow minority entrepreneurs to own up to 25 stations nationally.

Although non-minority owners are still limited to 20 stations, they are now

permitted to have a non-controlling interest in five additional stations that are either minority owned or small business owned.

To the chagrin of the National Association of Broadcasters (NAB), the commission also voted to retain 1992 rules that restrict owners to two AMs and two FMs in markets with more than 15 stations.

In markets with less than 15 stations, the rules stipulate that an owner can have a total of three stations with no more than two on the same band. The three station maximum, however, only applies if the total is less than half of all the stations in the market. So a given market would have to have at least seven stations before anyone would be allowed to own three stations.

"We are disappointed that the commission chose not to move ahead with a proceeding to provide additional duopoly relief for small market broadcasters," NAB Executive Vice President Jeff Baumann said.

But Baumann, who also is the NAB's



**On the Move:**  
World Media Expo attendees make their way through the vast LA Convention Center. For more show coverage, see pp. 11-28.



## Expanded Band List Released

by John Gatski

**WASHINGTON** The FCC has finally released the proposed allotment schedule for the expanded AM band. Of the nearly 600 original stations that applied for the new expanded AM band channels, only 79 have actually been allocated new slots.

Although the expanded band action was initiated as part of the AM improvement effort several years ago, the FCC has taken its time to sort through a complicated computer allocation program and several petitions for reconsideration challenging the FCC criteria used for considering stations.

According to Jim Burtle, chief of the FCC's AM Branch, the list is not considered final until the commission sorts through petition for reconsideration comments (due by Nov. 14) that were limited to challenges to the FCC's calculations. The allotment list could become final as early as December.

Burtle said that the FCC tried to fulfill the goal of moving the worst "interference offenders" from the band, but was limited by various constraints including the Mexican and Canadian AM border agreements.

According to the expanded band public notice, once the petitions for continued on page 8 ▶

legal counsel regarding FCC action on ownership rules, noted one bright spot in the duopoly restrictions.

"We understand, however, that the FCC

will consider small market duopolies that exceed the ownership limits on a case-by-case basis."

Despite the new added minority ownership relaxation rules, commissioners argued that additional incentives are necessary to increase minority ownership.

"Clearly we continue to open the door for people to expand or even get into business from an initial perspective," Commissioner Andrew Barrett said, "but how do we get people from the investment community... to do something?" he questioned.

FCC Mass Media Bureau Chief Roy Stewart promised the commissioners they would see other proposals to increase minority ownership of stations.

"The staff proposes to recommend to the commission in the near future that we look at the issue of minority ownership through a rulemaking procedure," he said.

That could include an incubator program, where the FCC would provide incentives for large broadcasting corporations that hire minorities and train them to eventually own their own stations.

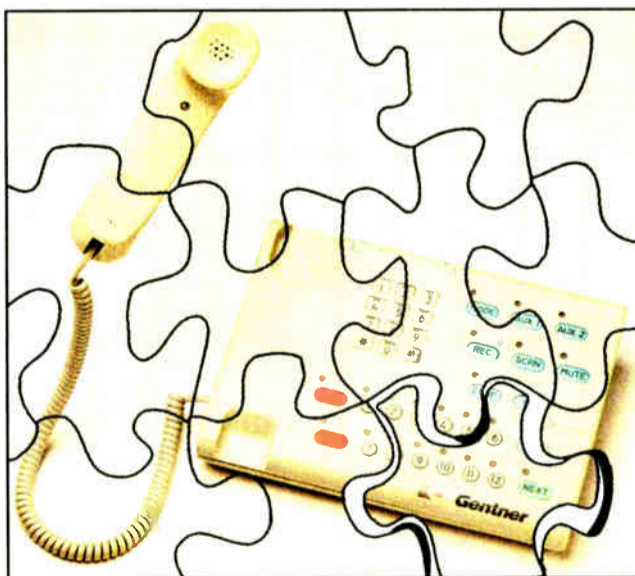
"My personal view is that while mutual funds, insurance companies and banks are certainly a source of funding in minority, female and small business interests, the other significant entity that's available to do that... are the larger multiple owners

continued on page 6 ▶

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World Radio History

# NEWSWATCH

## Clear Channel to Acquire Two Stations

**HOUSTON** In a move negotiated by media broker Michael J. Bergner of Bergner and Co., Clear Channel Communications recently agreed to purchase an 80 percent interest in a partnership to own Houston news/talk/sports AM stations KPRC and KSEV.

The agreement is subject to FCC approval.

The two stations are currently owned by Sunbelt Broadcasting, a company whose primary owners are Dan Patrick and

Steve Sellers. Sunbelt will retain a 20 percent interest in the new partnership.

Clear Channel already owns Houston urban station KHYS-FM and Houston urban/contemporary station KRXX-FM.

## Chancellor Acquires 11 Stations

**DALLAS** Chancellor Broadcasting last month announced its successful \$150 million acquisition of 11 radio stations owned and operated by American Media, Inc.

They are sports-talk station KMEN(AM) and contemporary hits station KGGI-FM in Riverside-San Bernardino, Calif.; oldies station KHYL-FM in Sacramento; oldies station WOCL-FM in Orlando, Fla.; progressive album rock stations KTCJ(AM) and KTCZ-FM in Minneapolis, adult contemporary station WALK-AM-FM in Nassau/Suffolk, N.Y.; country station WUBE-AM-FM and young country station WYGY-FM of Cincinnati.

In January of this year Chancellor Communications, an affiliate of Chancellor Broadcasting, acquired another two Sacramento stations: news/talk station KFBK(AM) and adult contemporary station KGBY-FM.

The January acquisition costs \$48 million.

## SBE Elects Officers

**LOS ANGELES** The Society of Broadcast Engineers (SBE) announced the results of its national election during its annual meeting at the World Media Expo. The officers are Charles W. Kelly, president; Terrence Baun, vice president; Keith Kintner, secretary and Robert Goza, treasurer.

Also elected to the board of directors are Leonard Charles, Micheal G. McCarthy, Thomas Weber, John F. Schneider, Michael Fast, Troy Pennington, David Carr, Dane Ericksen, Edward J. Miller, Robert Reymont, Martin Sandberg

Kelly appointed James Bernier to fill the unexpired board term of Philip Aaland.

SBE officers serve terms of a year while board of directors members are elected for two terms.

All terms began at the close of the annual meeting.

## DDS Offers Windows-Based Radio Worksheet

**NEW YORK** Donovan Data Systems Inc. is hooking up with Strata Marketing continued on next page ►

# A Little Bit of MAGIC...



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of Chicago to produce and distribute VIEW for Spotpak™, a windows-based radio scheduling tool with direct access to mainframe Spotpak® files.

Strata Marketing of Chicago is the developer of VIEW software.

VIEW for Spotpak will provide DDS Spotpak users with a special edition of Strata's VIEW software, a PC-based radio scheduling tool that allows seamless download of demographic data from Spotpak goals and upload of completed radio schedules into the Spotpak buying system.

VIEW for Spotpak's Windows-based "desktop" interface allows users to easily move selected stations from the research phase to a schedule using mouse commands.

VIEW's built-in features include the ability to analyze stations by trend, rank, audience composition and format.

### Latter-day Saints Release PSA Programs

**SALT LAKE CITY** The Church of Jesus Christ of Latter-day Saints recently released nine new 30-minute public service radio programs dealing with various moral and social issues, which are now airing on approximately 800 stations across the country.

The radio programs are part of church's Time and Season series, which recently won a Gabriel award from the National Catholic Association of Broadcasters and Communicators. The series has won other awards as well.

The new program discusses self esteem, family traditions, how and why to stop smoking, marriage, crime prevention, freedom of the press and press responsibility, literacy, educating children and the learning process.

### Teracom Invest in DCI, Again

**CUPERTINO, Calif.** Teracom Svensk Runradio AB of Sweden, the creator of the international standard Radio Data System (RDS), recently enhanced its partnership with the California-based Differential Corrections Inc. (DCI) through an equity investment in DCI.

Earlier this year DCI and Teracom established an initial partnership through a licensing agreement whereby Teracom is providing DCI's Differential Global Positioning System (DGPS) service throughout Sweden via broadcast over its

RDS network.

DCI's DGPS service is transmitted via FM subcarrier radio bandwidth and provides significantly higher levels of GPS accuracy in areas such as marine/aviation navigation, IVHS, precision farming, geographical information services (GIS) and other applications requiring precise location information.

Teracom's new investment in DCI provides funding to continue the development of technology for applications served by DGPS service. The relationship also will assist in the incorporation of DGPS technology and services in markets across the world utilizing RDS as a standard.

### Arbitron Response Rate Jumps

**NEW YORK** Arbitron realized a 5.4 response rate gain in the summer of 1994 over the summer of 1993.

The summer of 1994's average metro response rate is 39.4 percent, while the summer of 1993's was 34.1 percent.

### FCC Turns 60

**WASHINGTON** With cake cutting frosted over by political addresses from bureaucrats, the FCC last month celebrated its 60th birthday.

The agency was established by President Roosevelt in 1934 with a budget of \$1.14 million to regulate the broadcast business, which then consisted of 623 radio stations, and a telephone industry that had 14 million phones and total revenues of \$490 million.

Today the FCC regulates 21,640 radio, television and low power television (LPTV) stations and a telephone industry that is approaching \$200 billion in revenue.

The agency started with seven commissioners and 233 employees, and today it has five commissioners and 1,964 employees.

"I wonder if any members of that original commission could have imagined that, before the turn of the century, the FCC would have gone from regulating the nascent (emerging) broadcast, telephone and telegraph services to auctioning spectrum for industries that have the potential to link every person in the world instantly," said FCC Chairman Reed Hundt.

# Sony Unveils New MiniDisc Carts

by Alan Haber

**LOS ANGELES** Sony made a point of not exhibiting at the World Media Expo last month, but scheduled a concurrent exhibit at a nearby hotel to introduce its new products, including the second generation of MiniDisc.

The company is hoping that simplicity and ease-of-use of its second crop of MiniDisc "cart" recorders and players will be among the praises sung by radio station production people.

The MiniDisc revolution, which was invented by Sony, has taken hold in the pro audio ranks, but Sony's initial models have been overshadowed somewhat by flashier units from Denon and Otari, which offered more features, such as digital I/Os.

### Digital connection

From Sony's hotel room, the marketing folks introduced models with direct digital interfaces for complete digital system integration for on-the-air and production suite use.

The new MDS-B3 recorder/player and MDS-B4P player (the MDS-B3 replaces the MDS-B1 and the MDS-B4P replaces the MDS-B2P). Both of the new units include an RS-232C port for computer interface control, a headphone jack with a volume level, and timer/play control with automatic re-cueing, insuring that the units will not eject a disk if the power goes down (play can be picked up where it left off).

In addition, the units that have conveniently lit controls with "the 'press-and-play' functionality of standard analog NAB cart machines" are on offer. According to Sony, functions such as a quick loading disc transport, programmable operation, the ability to edit and store text, and an alpha-numeric display are included.

Balanced analog inputs and outputs, and advanced features such as fader start are also present in both units, which are EIA rack-mountable in a three-across configuration. The MDS-B3 has a separate keyboard/remote control, which can be used in track editing or when entering text. Both units were scheduled to ship in October.

continued on page 7 ►

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# Cultivating the Future of Radio

**WASHINGTON** I have lots of "people" news to share with you this time out. Congratulations to Dave Burns, who recently re-joined Harris Allied as its radio studio product manager. Dave, who is based in Richmond, Ind., most recently ran his own broadcast product and marketing consulting shop.

You may recall that Dave worked for Harris Allied from 1978 to 1991, in a variety of sales and marketing positions.

★ ★ ★

NAB coverage usually means an update on the RW Dream Team game. Not so this time—Sean Bowers, who usually instigates the gathering and leads the game,

missing this one show.

Best of luck to the happy couple.

★ ★ ★

Speaking of the NAB, Gaithersburg, Md.-based Bradley Broadcast gave away a top-of-the-line Sony world band radio receiver during the World Media Expo. The winner of the drawing was Greg Cain, a supervisor of technical services at Sea World in San Diego.

Cain was a registered attendee of the NAB Radio show, and his work includes audio, video and controls systems design for large visitor areas, exhibits, etc., at the California Sea World site. I guess he is a prime example of the diverse markets that a gathering such as World Media Expo can offer.

★ ★ ★

Featured on this page is a picture box from the Bayliss Foundation annual fund-raising event. If you've never been to one, you might consider going next year. Not only is it a worthy cause, but you get to dress up and dine in style at The Plaza.

I mention the dinner because it reminded me of one of the Seattle SBE sessions I attended, in which panelists agreed that one of the most important aids to success is having a mentor. The Bayliss Foundation helps broadcast-hopefuls to acquire the education they need to succeed, but once a student leaves the ivied halls, he or she is on her own.

What's more, one week spent in the company of a talented and

experienced engineer with patience and knowledge to share is worth one year of theoretical training at any university.

I enjoyed the Seattle regional gathering so much not only because it was well-

organized and well-attended, but simply because of the feel of the thing. There was a community spirit among the engineers that shone through in every session I attended.

The art of engineering as a profession is alive and well in the Northwest. That didn't happen by accident. Think back on your own career, and recall that particular person who gave you a hand and showed you the "right" way to do things instead of the "quick and dirty" way, and whom you can credit with making you the professional you are. Perhaps you might look around and find a talented kid who would be an asset to your field, and maybe you, too, could show this kid the ropes and be his or her mentor.

In many ways, it seems the radio business has come full circle. In the early days, the engineers who designed the stations were the ones who put it on the air and owned the thing. They were owners, managers, programmers and engineers all in one. Then came the era of specialization—one manager for every section of a station. And now it's back to the one- or two-manager operation, where engineers might have to know budgets and understand sales, and owners need to know what equipment does what, etc.

Do you really think they teach that in school these days? I know the field of engineering is shrinking. But I also know that the engineers who remain and thrive are going to be the best in the business. If you number among them (which you



Broadcast Supply Worldwide (BSW) and national voice-over artist Joe Cipriano teamed up to provide World Media Expo attendees a free station ID on DAT. Joe Cipriano, the on-air signature voice of the Fox Broadcasting Network collaborated with BSW to shape the read to their specs. The IDs were read by Cipriano from his studio in Pacific Palisades and were transmitted, using the Telos Zephyr, to the BSW booth where they were recorded on DAT for the eager patrons. Pictured is Tim Schwiager, BSW's vice president marketing, producing an ID spot at the booth.



Several hundred of the broadcast industry's most influential and active owners, brokers, bankers and advertisers were present at the ninth annual Bayliss Media Roast to "dis" honor Radio Advertising Bureau President, Gary Fries (l). Held in New York's Plaza Hotel, proceeds from the annual banquet benefit the Bayliss Scholarship fund, which to date has awarded more than 115 scholarships.

Pictured standing next to Gary is Paul Kagan of Kagan & Associates.

was busy preparing for his wedding.

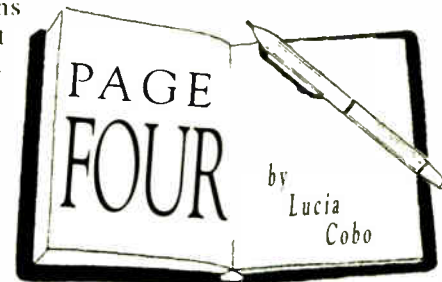
Not to worry though, all you fans of the Dream Team, there will be a Dream Team match in Las Vegas, come spring NAB time. I think we can forgive him for

probably do if you're reading RW) then you should do your part to ensure that station managers and owners find they can't survive without you. That means that even the lowest paid techie you hire should be potentially great. Helping cultivate that potential will only reflect well on you, as you and your staff (even if it is a staff of one) or your free-lance part-timer will be viewed as indispensable and highly professional.

With top-caliber professionals to help carry this business forward, the future looks less daunting and more optimistic from both a career standpoint and an industry one.

★ ★ ★

Before I sign off, I wanted to wish Mark Lapidus, RW's *Promo Power* columnist, a quick return to health. Mark was involved in a car accident en route to Washington from Richmond on that infamous stretch of Interstate 95. Thankfully, no broken bones, just lots of painful bruises. Best wishes for a speedy recovery from the gang here at RW.



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### Shortwave Praise

Dear RW,

After reading the review on the new Sony ICF SW100S, I was fortunate to receive one as a product replacement by Sony. I had a radio under repair whose parts were unavailable, so they offered me the SW100S.

What a great radio! Small feature-packed, easy to use as it is laid out like a tiny laptop computer. Best of all, it performs very well. Sony has a winner here and it is evident that they researched and thought through this radio and its design.

If I could ask for only one thing, it would possibly be an AM stereo or an AMAX certification. Sony already has the Walkman with AM stereo/AMAX. I wish they could incorporate that into the SW100S.

Still, it is a terrific radio that I take wherever I go. I would have never heard about it if RW had not run a review on it. Thanks RW.

Jeff Jacobson  
Station Manager  
WNFA-FM/WNFR-FM  
Port Huron, Mich.

### Expanded Band

Dear RW,

Now that the AM branch of the FCC has issued its long awaited list of proposed allotments to the expanded band, let me register my disgust with their stinginess and lack of "serving the public" by this list.

We were stroked by news reports that of 688 stations who showed an interest, the list was narrowed to 99 stations. The real list, however, is 79 stations. But 10 of those stations are located in California and three so-called "states" are actually U.S. territories. That leaves 66 allotments for the other 47 states.

## Radio World

Vol. 18, No. 23 November 16, 1994

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Radio World (ISSN: 0274-8541) is published bi-weekly by Industrial Marketing Advisory Services, Inc., 5827 Columbia Pike, Suite 310, Falls Church, VA 22041. Phone: 703-998-7600. Fax: 703-998-2966. Second-class postage rates are paid at Falls Church VA 22046 and additional mailing offices. POSTMASTER: Send 3579 forms and address changes to Radio World, P.O. Box 1214, Falls Church VA 22041. REPRINTS: Reprints of all articles in this issue are available. Call or write Regan Deatherage, P.O. Box 1214, Falls Church, VA 22041; (703) 998-7600; Fax: (703) 998-2966. Copyright 1994 by Industrial Marketing Advisory Services, Inc. All rights reserved.

—PRINTED IN THE USA—

Next Issue of  
Radio World  
November 30, 1994

Unfortunately, it does not stop there. For years, Detroit carmakers have been selling radios with the expanded band ready to go. But there will not even be an expanded band station located in the state of Michigan. Or for that matter the states of Ohio, Pennsylvania, South Carolina, Massachusetts, Tennessee, Montana, Nevada, South Dakota, West Virginia, Vermont, New Hampshire, Connecticut, Rhode Island and Delaware. Of course, nobody considered that Hawaii or Alaska would qualify either.

There will be no improvement in the AM band by moving one station per state, and many may prefer their original frequencies because there is simply no activity at the very top of the band.

The FCC really messed up on what could have been a beneficial resource to the industry. Instead, it is going to turn out like so many other projects that have come and gone over the years—doomed to fail from the start.

Mark Heller  
President/GM  
WTRW(AM)  
Two Rivers, Wis.

### Soundmirrors Revisited

Dear RW,

I found your articles about the Brush Soundmirror very interesting, and it brought back a lot of memories.

While I was in high school in the late '40s, I worked part time as a studio engineer for KISD, which went on the air during the spring of 1948. We had two of the Soundmirrors in the control booth modified for remote operation through our ratheon board.

All of the voice station breaks, intros etc., were recorded the previous day on tape, and I would play the recordings that were introduced by the tapes.

New broadcasts were, of course, live, and I would interject "the weather bureau temperature is..." in station breaks. It really cut down the overhead. They did not pay me much, but I loved the work.

We started with paper tape on metal reels, so the quality was a little low. Later, we changed to the better-quality 3M tapes as they became available. This was a rather innovative procedure at that time, and I do not believe it was done anywhere else in my area.

I do remember that Mark Boese, the chief engineer, had a lot of headaches modifying them for this use. We also used the Brush recorders for remote pickups quite extensively. They were heavy, at least I thought so.

The station manager used these machines for sometime and built KISD into quite an operation.

Thanks for reminding me of one of the greatest jobs I ever had.

Dick Neish  
FAA (Retired)  
Chester, S.D.

### What's in a Name?

Dear RW,

Alan Peterson's story about air names brought back memories of how

## Continue Minority Progress

In 1992, the FCC enacted a major overhaul of the radio ownership rules by significantly increasing the local market and aggregate limits for group owners. Within that rulemaking, the Commission set aside a 20-station nationwide limit for minority owners. At the time, the commissioners promised that other steps would be taken to make sure minorities could increase their participation in radio broadcasting.

The FCC seems to be following through with its promise to encourage minority diversity with a decision it made last month. The Commission voted to increase limits for those groups to 25 stations nationally. The non-minority ownership national limit was left unchanged at 20.

Although this limit revision is not purely a market approach, it is a logical step to encourage more minority participation within the context of the ownership rules. However, the FCC staff and commissioners acknowledged, in their deliberations, that just setting higher limits will not guarantee more minority owners.

Finding the economic means can be a major obstacle to minorities owning their own stations. Buying and maintaining a radio station is expensive, and many minority owners who have the noble goal of employing minorities and operating their own station lack the capital to get started.

More needs to be done on this front. In its latest ownership deliberations, the FCC discussed a possible minority ownership rulemaking that would explore the various options that would offer incentives to potential minority owners. The rulemaking would take a look at the typical means of financing as well as incentives such as an "incubator program" that would provide incentives to large radio groups to hire minorities and to train them to eventually own their own stations.

Whatever options the FCC eventually chooses, let's hope they accomplish the initial objective: to increase cultural diversity on the airwaves. Without the FCC's involvement, this would not likely happen on any significant scale.

—RW

an air name almost got me in the trenches.

In the mid '60s I had a couple of turntables and a wooden microphone in a corner of the basement. The station was KTBA and I was Steve Caldwell. The air name lasted two years at Eastern Washington State College's KEWC-AM-FM and a semester or two at Spokane Falls Community College's KSFC-FM. My real name "Sibulsky" was too long, too ethnic and too sibilant for an air name.

Then came "American Armed Forces Radio" in the early '70s. Announcer students at the Defense Information School, DINFOS, were required to use branch, rank and full name when hosting any music programming.

I mistakenly used the Caldwell handle at DINFOS during a practice board session monitored by a very large staff sergeant, who then stormed into my tiny training studio and thundered "who the hell is Steve Caldwell?"

Failure to pass his required course meant a free ticket to infantry training at Fort Polk, La., and round trip tickets (that is: round trip if you were lucky) to DaNang, Vietnam. So from that day on I used a cue card for my own name.

Steve Sibulsky  
Army Specialist

### More on Sexual Harassment

Dear RW,

Sue Jones' article on sexual harassment misses the point when it discusses risk. Although one risk is that someone will be sexually harassed, a far greater risk is that an innocent person will be accused of sexual harassment.

It is unimaginable that the things on Sue's list of unacceptable behavior happen frequently. A new kind of behavior is universally enforced in today's workplace.

The article is a tired stereotype that is enforced in today's publishing.

The real risk is that a disgruntled, confused or naive employee will make an accusation based on emotion rather than fact.

If you want to destroy lives and businesses, this is the way to do it. If you are accused you only have one choice: quit your job. Even if you own the business, quitting is your only option.

This is because if you are accused of sexual harassment you are typically not allowed to face your accuser, know your accuser's name, know exactly what the accusation is, discuss the accusation with any employee or defend yourself.

If you try to stay in your position, you could not fire anyone for fear that the move would be interpreted as a response to the sexual harassment accusation—lawsuit territory. So you have just lost your power to make unpopular decisions.

Also, to stay at your company is to risk a more serious second accusation, but if you leave, you will seem to the company grapevine that you are admitting guilt. And try explaining a sexual harassment accusation to your spouse.

My guess is that there are hundreds of thousands of hurting people who used to be executives and are now victims of sexual harassment accusations, unable to defend themselves.

Sexual harassment accusations do not require proof, but defending yourself against a sexual harassment accusation does require proof.

When I first heard about sexual harassment laws I wanted to say "this is ridiculous. Let's make laws that help people rather than hurt them."

Now I have been accused and my word is worthless. For that reason please do not publish my name.

Name Withheld by Request

# 'Pirate' Station Vows to Fight FCC

by Thomas Pear

**BERKELEY, Calif.** Arguing the FCC is violating his First Amendment rights, alleged airwaves pirate Stephen Dunifer vowed to fight to the U.S. Supreme Court an attempt by the commission to shut down his unlicensed Berkeley micropower radio station.

"They can kiss my Bill of Rights," said Dunifer in a written statement. Dunifer then promised to take his case "all the way to the top."

In October the FCC filed a federal injunction to stop Dunifer from broadcasting, bringing to a head an ongoing battle to pull the plug on the operation.

"We welcome the opportunity to fight in court," said FCC Counsel David Silberman, who contends that the First Amendment does not protect broadcasting without a license.

## Not a right

"The Supreme Court has said many times that you don't have a right to broadcast unlicensed," he said. "The Supreme Court has recognized that the spectrum is finite."

Luke Hiken, Dunifer's National Lawyers Guild attorney who serves on the organization's committee on democratic communications, argued that there are still plenty of unused frequencies that would suffice for low-power broadcasts.

"The industry acknowledges there is no spectrum scarcity," he said.

Dunifer's organization, titled Free Radio Berkeley, has been in existence since April 1993. It is part of a growing movement of micropower stations that use inexpensive and low power transmitters to reach local communities, Dunifer said.

The power of micro transmitters ranges anywhere between a half watt to 30 watts. Micro broadcasters operate on untapped

**Hiken alleges that by pursuing an injunction, the FCC is bypassing its own hearing procedures, denying his client an opportunity to fight shutting down his station.**

frequencies, serving as local community broadcast leaflets of the '90s, according to Dunifer.

"In an era of multinational controlled mass media, micro power broadcasting is the voice of the community," he noted. "The voice of the people."

Dunifer uses his station as a community format for the Berkeley area and broadcasts Internet news, tapes from local performers and "street views."

But because Dunifer has operated without FCC approval the commission lowered the regulatory boom and served Dunifer with a \$20,000 liability notice that has been pending within the agency for more than a year.

Silberman said that Dunifer's broadcasts are not so innocent and that he twice has interfered with the broadcast of two licensed California non-commercial stations: KQED, which broadcasts at 88.5 MHz in San Francisco and high school-operated KECG, which operates at 88.1 MHz in El Cerrito.

But Hiken said that most stations, includ-

ing commercial stations, do "bleed" into other frequencies from time to time. He argued it is "hypocrisy" to ignore frequency infringement from commercial stations and then use "signal bleeding" as grounds to pursue Dunifer.

## Free speech

To Dunifer the issues are more than FCC regulatory fines, they are what he sees as a system where large broadcasting corporation chummy with the commission are strangling free speech—a system that he vows to fight.

"We shall not be moved by or stymied by a justice system that means, in reality, just us corporations," Dunifer said.

Hiken agreed.

"Communication is controlled by a small number of billionaires," said Hiken. "The American people... have no voice on the radio spectrum."

Usually, the FCC requires stations to buy expensive high-power transmitters and bear a costly licensing process before broadcasting, which Hiken contended takes radio ownership away from the people and places it in the hands of a corporate broadcast elite.

"You can't even think about it without \$150,000," Hiken said. "The FCC should be facilitating communication between people, not handing it out to the rich."

"If a person has money his voice can be heard everywhere," Dunifer said. "If a person doesn't have money he can be heard on the street corner."

## Tricky legal maneuvers

Hiken alleges that by pursuing an injunction the FCC is bypassing its own hearing procedures, denying his client an opportunity to fight shutting down his station.

When Dunifer received his \$20,000 forfeiture notice he appealed the fine through the commission administrative process and with that appeal enclosed an application for a waiver of FCC rules requiring a 100 watt transmitter to broadcast.

Dunifer usually broadcasts below 10 watts, he said.

The FCC is keeping Dunifer's forfeiture in—waiver application and all—while at the same time the commission is pursuing the injunction to stop him from broadcasting.

Until the FCC makes a ruling on Dunifer's application for a waiver on the 100 watt rule, Hiken said Dunifer has no legal standing to fight for airwaves in federal court. This was made clear in a previous ruling by the U.S. Court of Appeals in San Francisco—The FCC vs. Dougan.

In that case the court said it lacks jurisdiction to hear an appeal of a fine. Instead, a fine must be enforced in a civil suit filed in U.S. district court (trial court).

Meanwhile, until the FCC enters a final order denying a rule waiver, Dunifer cannot appeal its decision or go to court. That is because under the Dougan case, although fines go directly to court, all other FCC decisions cannot be appealed directly to court. Instead applicants must exhaust their FCC administrative remedies first, which includes an appeal to the FCC, before going to court.

That decision combined with a successful federal injunction could pull the plug on Free Radio Berkeley. By holding Dunifer's waiver request in limbo, the FCC is denying him a hearing.

"This is a totally unprecedented move on the part of the FCC," Hiken continued. "Apparently they have side-stepped their own authority...."

## FCC response

But FCC official said they are not violating any legal procedures by going to federal court.

"That's merely a smoke screen to hide the fact that the individual (Dunifer) is in violation of the law and he continues that violation," FCC San Francisco Supervisor Philip Kane said.

Silberman said that the fine assessment and the injunction to prevent Dunifer from broadcasting are two separate legal issues, although they both deal with the alleged illegal broadcast.

He said the fines are still pending within the FCC and would only go to court if the FCC decides to collect the assessed fines and Dunifer decides to contest that decision.

An injunction to stop an illegal broadcast, on the other hand, does require a court order, Silberman said.

As for Dunifer not having any legal standing to fight for airwaves, Silberman said, "We will respond to that argument when we file a plea in court." ☺

## Minority Ownership Increases

► continued from page 1

that have broadcast stations," Stewart said.

"I think we have to keep on exploring ways of encouraging financing for minority ownership," Commissioner James Quello said. "That's where the shortage is, it's economic more than anything else."

Some concern was previously raised that revision of the 1992 station ownership rules violates fair competition principles, but FCC Chairman Reed Hundt said that is not the case.

"This is an effort that is made to increase participation for small businesses, minority station owners and potential (minority) owners," he said. "It is not done at the expense of competition policy... the item carefully recognizes good sound antitrust thinking."

Also, the commission also refused to modify its time brokerage arrangement policies, although it did clarify its treatment of "grandfathered" time brokerage arrangements. ☺

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# FCC Structure to Be Improved, 'Reinvented'

by Thomas Pear

**WASHINGTON** Ever since he took office, President Bill Clinton has promised to "reinvent government," and FCC Chairman Reed Hundt extended that commitment to broadcasters by promising to "reinvent the FCC."

What that means for radio stations, FCC Audio Services Division Chief Larry Eads said, is that at some point in the

future they should see simpler licensing renewal applications and instructions.

"We are designing a more user friendly renewal package," he said.

## Station reactions

Small stations like KLAN(FM) in Glasgow, Mont., and its sister AM station KLTZ would welcome user-friendly renewal applications. They cannot afford giant legal fees, so station staffers often

spend hours filling out tedious renewal packages.

KLAN and KLTZ station manager Shirley Kirkland especially hails the changes. Kirkland filled out a license renewal several years ago for KLTZ.

"It dragged on and on. It was the never ending story," she said. Kirkland will again fill out the necessary paper work as the station approaches its next renewal, and "I'm not looking forward to it," she said. "I'm for anything easier."

Larger stations would also welcome "user friendly" renewal packages. Although most hire attorneys for the application process, many stations like WINK-AM-FM in Fort Myers, Fla., still do some of the licensing leg work themselves.

"It would make us sleep better knowing the application process has been streamlined," Fort Myers Broadcasting Co. Director of Engineering Galen Hassinger said.

Fort Myers Broadcasting owns WINK-AM-FM radio stations and television station WINK-TV.

Still there are those who have reservations about federal government attempts at simplifying anything.

Tom Bosscher, a staff engineer at WCUZ-AM-FM in Grand Rapids, Mich., is very skeptical. He noted that previous attempts by the federal government to simplify the tax code have frustrated many of his personal acquaintances into hiring accountants to trudge through their so-called simplified tax forms.

Bosscher said he is going to take a wait-and-see approach to FCC promises to make the renewal process simpler for radio stations.

"I'll watch this with amusement from the side," he said.

But Eads' tone is sincere in his promise to bring radio stations a more efficient FCC.

"The radio industry is essentially our primary customer," he said. "We are trying to improve our service to that customer."

## Other FCC changes

In addition to easier-to-understand renewal applications, the FCC said radio stations will also see a reinvented FCC that reaches decisions quicker—including renewal decisions, produces decisions related to radio with more clarity and is more responsive in terms of providing stations with requested information.

To increase decisions making speed the commission will apply a three pronged approach. It will reduce the number of

application reviews, reduce the length of time it takes to do reviews and reduce the steps a renewal application goes through to get FCC approval.

To help reduce unnecessary application review steps, for example, the FCC will consolidate data bases containing different bits of renewal information.

Currently, applications that come into the FCC are entered into at least three different data bases: a primary administrative data base, an engineering data base and a special data base that keeps track of an application's status.

continued on page 14 ►

## Sony's New MD Cart

► continued from page 3

Sony also announced November availability of the PRMD-74 professional quality MiniDisc media, which employs a Magnetic Field Modulating Direct Overwrite process. According to the company, "clear audio quality" is delivered; during recording, the laser beam heats the recording area and then inputs the signal, thereby eliminating physical contact of the magnetic head experienced in conventional tape systems.

## Significant achievement

The PRMD-74 achieves a block error rate "10 times lower than that of its consumer MD counterpart," said Thomas K. Evans, marketing manager, Professional Media, Recording Media Products Group, Sony Electronics. "This is a significant achievement, and, especially for critical applications, particularly helpful."

A one million erase/read/write cycle performance level is maintained. The PRMD-74 also features Quick Random Access; according to Sony, "sound sources can be recorded on up to 255 tracks, in both stereo and mono."

A CD-style jewel case houses the new MD media, and is accompanied by an index sheet and an APRS-style label system.

The intuitiveness of MiniDisc makes the product easier for station neophytes to use almost instantly after being exposed to it, according to proponents. MiniDisc units, according to Courtney Spencer, vice president, Professional Audio, Business and Professional Products Group, Sony Electronics, were "designed to have as much familiarity as possible for someone who is used to using an NAB cart machine."

Does Spencer think the days of the cart machine are numbered? "I think they're waning," he said, "but I think they're waning slowly. The economics of broadcasting today are such that people are not looking to spend money unnecessarily. They're being analytical in terms of return on investment."

Spencer also noted that as with any new technology including MiniDisc, radio stations are cautious.

"People want to feel confident that the new technology that they're adopting will fit into their existing scheme. I think that's been a lot of the strengths of these products, that they do fit into an existing plan without a lot of disruption. So, yes, I think the NAB cart is on the wane. I think we'll see NAB carts in use in radio stations certainly for a few more years," Spencer noted that Sony is seeing "strong and growing sales every month" for MiniDisc.

## Partnership

Also announced at the hotel suite was SW Networks, a joint venture between Sony Software and the Warner Music Group, supported by Sony Electronics and the Digital Audio Disc Corporation (DADC).

SW Networks, billed as "the first radio syndicator to offer stations select programming in the new MiniDisc format," is a full-service radio network that will launch during the first quarter of next year. The service will supply a variety of programming to radio stations. Other programming options mentioned are compact disc and satellite. A MiniDisc cart start-up package, consisting of the MDS-B3 record/playback unit and PRMD-74 discs, is being offered to SW Networks affiliates.

## Question:

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# Expanded Band List

► continued from page 1

reconsideration are addressed, stations will be able to fill out Form 301 and actually apply for the expanded band slot. The 301 applications will only be subject to petitions to deny and not competing applications, according to the FCC.

Stations with allotments will have 60 days from the date the list becomes final

to file Form 301. Burtle said stations on the list, which was based on letters of intent and not actual filings, do not have to migrate to the expanded band. Those that do migrate will be able to simulcast on their old and new frequencies for up to five years.

Expanded band radios, which now number in the millions, have been produced since the late 1980s. ☺

## Proposed Allotments to the Expanded Band

CALL	Licensed To	State	Pres. kHz	Ex.Bd kHz
WEUP	Huntsville	AL	1600	1610
KFVR	Crescent City	CA	1310	1610
KECN	Blackfoot	ID	690	1610
KENN	Farmington	NM	1390	1610
KXBT	Vallejo	CA	1190	1620
KHMO	Hannibal	MO	1070	1620
WVMI	Biloxi	MS	570	1620
WLNC	Laurinburg	NC	1300	1620
KQWB	West Fargo	ND	1550	1620
WEHH	Elmira Heights	NY	1590	1620
KPAR	Granbury	TX	1420	1620
WGOD	St. Thomas	VI	1090	1620
KRIZ	Renton	WA	1420	1620
KSHY	Fox Farm	WY	1530	1620
KIDR	Phoenix	AZ	740	1630
WPGS	Mim	FL	840	1630
KCJJ	Iowa City	IA	1560	1630
KYUU	Liberal	KS	1470	1630
WSYD	Mount Airy	NC	1300	1630
KTMT	Phoenix	OR	880	1630
WTAW	College Station	TX	1150	1630
KTKK	Sandy	UT	630	1630
KLOQ	Merced	CA	1580	1640
KRKS	Denver	CO	990	1640
WAOK	Atlanta	GA	1380	1640
WIWO	South Bend	IN	1580	1640
KLXX	Bismark/Mandan	ND	1270	1640
WTRY	Troy	NY	980	1640
KTRT	Claremore	OK	1270	1640
KPHP	Lake Oswego	OR	1290	1640
KURV	Edinburg	TX	710	1640
KITA	Little Rock	AR	1440	1650

KFRN	Long Beach	CA	1280	1650
KNRO	Redding	CA	600	1650
WBIT	Adel	GA	1470	1650
KCFI	Cedar Falls	IA	1250	1650
KSVE	El Paso	TX	1150	1650
KSOS	Brigham City	UT	800	1650
WPMH	Portsmouth	VA	1010	1650
KBLU	Yuma	AZ	560	1660
KRCX	Roseville	CA	1110	1660
KCOL	Ft. Collins	CO	1410	1660
WCCF	Punta Gorda	FL	1580	1660
KAGY	Port Sulphur	LA	1510	1660
WRGC	Sylva	NC	680	1660
WJDM	Elizabeth	NJ	1530	1660
WPJC	Adjuntas	PR	1020	1660
KHVN	Fort Worth	TX	970	1660
KEYF	Dishman	WA	1050	1660
WNNO	Wisconsin Dells	WI	900	1660
KWHN	Fort Smith	AR	1320	1670
KECR	El Cajon	CA	910	1670
WRCC	Warner Robins	GA	1600	1670
WTGM	Salisbury	MD	960	1670
KKOJ	Jackson	MN	1190	1670
KKIS	Concord	CA	1480	1680
KQXI	Arvada	CO	1550	1680
WELX	Callahan	FL	160	1680
WKCT	Bowling Green	KY	930	1680
WNSW	Brewer	ME	1200	1680
WEBC	Duluth	MN	560	1680
WNED	Buffalo	NY	970	1680
KDSX	Denison-Sherman	TX	950	1680
KPOZ	Seattle	WA	1590	1680
WKRK	Mobile	AL	710	1690
KFRE	Fresno	CA	940	1690
WBCI	Normal	IL	1440	1690
WGHB	Farmville	NC	1250	1690
KCRC	Enid	OK	1390	1690
WRRR	Fredericksted	VI	1290	1690
WFMH	Cullman	AL	1460	1700
KCEE	Tuscan	AZ	940	1700
KAHI	Auburn	CA	950	1700
WOKB	Winter Garden	FL	1600	1700
KRGI	Grand Island	NE	1430	1700
KAHZ	Fort Worth	TX	1360	1700
WAGE	Leesburg	VA	1200	1700
KCPL	Olympia	WA	920	1700
WKSH	Sussex	WI	1370	1700

## 63 Years Ago

Reprinted from Radio World July 18, 1931.

Editor's note: The RW of old, printed for a time in the 1920s and 1930s and today's RW are unrelated except in name.

## STUDIO WALLED BY GLASS WOOL CANADA COURT RULES ON AIR

For the past four months workmen have been busy redesigning, reconstructing and redecorating the studios of KHJ, in the Don Lee Building, Los Angeles.

This work is now completed. The entire second floor, comprising 20,000 square feet, has been given over to the studios and executive offices of the station. Three separate sound-proof studios have been constructed, consisting of one large studio capable of accommodating a 200-piece symphony orchestra, and two smaller studios. Each of these rooms has been sound-proofed to an efficiency of better than ninety-five percent. Each has its own monitoring room and separate broadcasting equipment control units.

These three studios serve to materially increase the broadcasting flexibility of KHJ. It is now possible for the station to broadcast a program locally, release a program to the Don Lee Coast network and conduct a rehearsal simultaneously.

Because of the thick partitions, filled with glass wool, it is impossible for any sound to escape from any of the studios. The walls have all been acoustically treated.

Washington. The Supreme Court of Canada has held that control of radio broadcasting is a duty of the Dominion Government rather than of the individual provincial legislatures, according to advice received by the Department of Commerce from Acting Commercial Attache, Oliver B. North, at Ottawa.

The decision, which was rendered by a 3-to-2 vote of the court, is not final, since either side may appeal to the Privy Council.

The decision was rendered after lengthy hearings on the contending argument for provincial or Dominion control of radio broadcasting. The case started in connection with the refusal to grant a broadcasting license to a station which was to put on the air a program sponsored by the Quebec provincial government.

The court's decision is in line with the legal conception of broadcasting in the United States, i. e., interstate commerce. Comment was made on the closeness of the vote, paralleling the 3-to-2 vote in the recent decision by the Federal Radio Commission in the Clause 9 case.

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# World Media Expo

## C.O.V.E.R.A.G.E

RTNDA 1994



## Los Angeles Hosted Combined Expo

by John Gatski and Lucia Cobo

**LOS ANGELES** The World Media Expo, which featured conferences by the NAB Radio Show, Society of Broadcast Engineers, the Radio-Television News Directors Association and the Society of Motion Picture and Television Engineers, was considered a success by most radio people.

However, there was some negative reaction to the layout of the convention center, especially the long walk from the exhibit floor to some sessions.

Nonetheless, 17,637 attended the mega-convention. More than 220 equipment manufacturers and service providers occupied 53,400 square feet in the Radio/Audio pavilion of the L.A. Convention Center, as well as 51 hospitality suites at the nearby Westin Bonaventure Hotel.

The overall message of the show for radio broadcasters was upbeat and congratulatory. In an address on "The State of Radio Sales," Radio Advertising Bureau President Gary Fries said, "In my 37 years (in the industry), I don't think radio has ever had a better hour than it has now. Besides quality sessions from SBE, NAB and RTNDA, highlights of the Radio Show included a televised appearance from President Bill Clinton, in which he primarily discussed his administration's political agenda, and live appearances from numerous syndicated radio personalities. Westwood One's G. Gordon Liddy, Pat Buchanan and David Brenner were among those broadcasting from locations around the convention center. Paul Harvey was a keynote speaker and award winner.

Down on the exhibit floor, most manufacturers said they were pleased with exposure to registrants from the four groups attending World Media Expo. "We have more potential audiences in one shot than we would normally see," said Paul McLane with Bradley Broadcast.

Floor traffic had its highs and lows, though sales were reported as healthy by a number of manufacturers. Many exhibitors reported lesser crowds toward the middle of the show, with a strong surge on Saturday, the closing day. Several pro audio companies and video companies, however, reported low booth traffic and said they may not return to the show.

"We've been extremely busy," Broadcast Electronic's Tim Bealor said from the exhibit floor. "Overall, we have been pleased."

In 1995, the WME moves to New Orleans and then back to LA the following year. Some in attendance said that East Coast attendance, especially from engineers, seemed low this year because the show was in the Far West.

### Product news

Product-wise, there was lot to see at WME with a surprising amount of new

gear. Following is a sampling of the products on display at World Media Expo, with more product coverage scheduled for upcoming issues of RW.

With the success of its MiniDisc cart machines among professional audio users, Denon introduced new software for the line, the MD Remote, a Windows-based serial remote control, and a new recorder, the DN-995R.

ogy for its line of digital telephone hybrids. The technology allows clear, 7.5 kHz audio to be transmitted over ordinary phone lines.

Scott Studios announced a new card for its digital editing and playback system that allows the user to have a choice in compression schemes: Musicam, apt-X and Dolby AC-2.

Fidelipac now offers a magneto optical (MO) option for its DCR1000 floppy cart recorder player. The MO drive supports 230MB and 125MB diskettes and offers state-of-the-art recording for archival and other recording purposes. When ordered with the DCR1000, the MO option is \$800. A retrofit is \$1,200.

Soundcraft introduced its RM 1000 on-air console that features program/stereo audition outputs, mono input module, stereo input module, teleco input module and meter bridge.

Orban announced new software for the DSE-7000 DAW, Version 4.5, which allows the popular digital editor increased networking capability and enhanced graphics, according to the company. The DSE-7000 is also now fully compatible with the Enco DAD 486x

digital audio delivery system. Orban also introduced the PC Remote Software for the Optimod-8200 processor.

### RDS news

On the RDS front, Innovonics, RE America and CRL showed their line of

encoders as well as other peripherals. Belar also showed its prototype RDS monitor, the RBDS-1, to be available in a few months. The new Innovonics 510 decoder/reader was on display and planned for shipping in early 1995. Modulation Sciences already is shipping its analyzer.

ADS showed its FM RDS decoder computer board for PCS, allowing the user to receive RDS information and listen to the radio in full stereo. The stereo-enhancing SRS systems also is contained on the board. Price is \$250.

Aphex had its first public demo of the Model 107 Tubessence, the \$499 dual-channel, rackmount mic preamp. Aphex claims that its hybrid tube/solid state technology offers customers an inexpensive unit (\$500) that brings a full, "sweet" tube sound with the stability of solid state.

Harris Allied featured a live demonstration of its DX 10 operating the USA Digital Radio In-Band, On-Channel digital broadcast signal (into a dummy load). According to the company, the DX 10 used both at World Media Expo and in the on-air tests of the system in Chicago is essentially the standard Harris production model that has been marketed worldwide since 1987. Modifications were made to the Bessel filter to achieve a five- to 10-fold improvement in the unit's audio bandwidth capabilities.

### More in the pipeline

Harris Allied also announced the addition of several products to its product line, including: the Telos Zephyr digital audio network transceiver; the Phantom digital audio system from RDS; Radio Systems' DDS, expandable, multi-user, multichannel digital delivery system, and the EQ3 from Night Technologies International. Using patented audio circuitry, the EQ3 use

continued on page 12 ▶

Radio traffic at the 1994 World Media Expo was brisk.



The DN-995R includes external sync capability and built-in clock and faster cueing. The unit was scheduled to ship in October. The MD Remote software will work with all Denon products: the DN-990R, DN-980F and the new DN-995R.

Otari also showed its new MiniDisc recorder/player, the MR-10, and the B-10 broadcast console, which features channel grouping, enhanced talkback, XLR connectors and optional DC operation. Also at the show was the new Otari CDC-600 CD autochanger.

VoxPro, by Audion Laboratories, has been upgraded with stereo recording capability and can run as a native application on the new Power Macintosh computers. VoxPro is a control room/newsroom hard disc editor that is said to combine better than reel-to-reel sound quality with the user friendliness of the easiest-to-use DAWs.

MPR Teletch announced the Digital Courier International service, a Canadian-based network system that transmits CD-quality audio along a subscriber web of PCs. Initially, the company will have subscribers in the U.S. and Canada and eventually across the globe, according to MPR Teletch.

### Digital transmission

CCS showed its CDQ Prima, a digital codec that allows modular expansion based on need. Based on a core of features, each of the five Prima series provides different options. The options include number of interface slots, psychoacoustic parameter adjust, inverse line multiplexing, digital VU, cue display, headphone subsystem, SMPTE timecode and MPEG error correction.

Telos introduced the TFC coding technol-

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# Frequency Coordination a Global Issue

by Andrew Morris

**LOS ANGELES** This year's World Media Expo SBE conference on "Broadcast Auxiliary" issues, moderated by Dane Ericksen of Hammett and Edison, featured issues of frequency coordination with both domestic and foreign broadcasters.

On the panel from the FCC were Alan Schneider of the Mass Media Bureau, Auxiliary Service Branch and Riley Hollingsworth of the Private Radio Branch, Licensing Division. Both men from the FCC were eager to hear the concern of broadcasters regarding broadcast auxiliary issues.

Chris Imlay, SBE general counsel, discussed potential upcoming changes to the 2 GHz ENG band. "The 1990-2110 segment to accommodate other services has received FCC attention recently," Imlay said.

He continued: "The SBE had assumed the issue of reallocating the 2 GHz band had been put to bed until TRW petitioned the FCC for rulemaking regarding the acceleration of the WARC '96 reallocation of the 2 GHz band. I understand the FCC's present intention is not to de-allocate broadcasters or shrink the band.

"There could be a plus or minus 40 MHz shift of the band. Issues that need to be looked at are the frequency agility of existing equipment, the cost of shifting equipment to a band that has been moved and true life of equipment in the field. The SBE will participate actively in any rule making."

## Frequency issues

In discussing frequency coordination issues Imlay stated, "The accuracy of the databases has always been our greatest difficulty. The FCC has put a database of the licenses below 860 MHz on the Internet, and this is a good step in the right direction. We need to get the frequencies above 860 MHz on the Internet as well to get this information out to the broadcasters."

Ericksen announced the completion of a two-and-a-half year project that has created

a loose-leaf notebook containing Frequency Coordination Committee information for the contiguous 48 states. In this notebook is a set of maps showing every county and state in the U.S. with a frequency coordinating committee.

Each state has its own map illustrating the Frequency Coordination Committee in that state and the counties that they cover. There is a date code on the bottom of each page, and updates will be accomplished by replacing individual pages.

Ericksen presented copies of the notebook to Schneider and Hollingsworth of the FCC. Ericksen requested that Frequency Coordinators inspect the book for accuracy. The information in the book will be available on the SBE BBS.

"This book lays the groundwork for an SBE petition for rulemaking to the FCC," Ericksen said.

## Expected rulemaking

Submission of information from the coordination book as an exhibit to license applications would be required by this proposed rule. This would serve the purpose of proving that an applicant has performed the required doing frequency coordination.

Ericksen stated, "In areas where a coordination committee does not exist, an applicant would have to do his own

exhibit stating which licensees are on adjacent or shared channels."

A spirited discussion regarding foreign broadcasters and their sometimes willful disregard of frequency coordination ensued. Howard Fine of the Southern California Frequency Coordinating Committee said there were two serious problems during the recent international coverage of the World Cup. One problem involved broadcaster from Colombia who interfered with an FAA tower in Boston.

Other problems Fine has experienced are broadcasters from Canada and Japan entering this country and using two-way radios at 419 MHz. This is the same frequency used by the DEA (Drug Enforcement Agency) in this country.

Richard Rudman of KFBW and the National Frequency Coordinating Committee discussed problems that have been experienced with Mexico. "RF does not respect international boundaries," stated Rudman. He added that it is important for United States broadcasters to recognize that this is true bidirectionality."

The FCC's Hollingsworth stated: "There have been tremendous changes at the FCC this year." He said he would never forget watching the recent narrow-band PCS auction in which the FCC was expecting an opening bid of \$2 million. "When the first bid came in at \$20 million, I thought the world of radio has changed from that moment," Hollingsworth said.



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## L.A. Hosted First Expo

► continued from page 11

equalizer hiss-free, noise-free, distortion-free and phase-shift-free sound.

Jampro Antennas introduced its expanded line of RF components, available for the first time as individual components, including rigid transmission line and components, harmonic filters, directional couplers, bandpass and notch filters, channel combiners and diplexers.

Gentner showed its TS612 DCT Multiline telephone system, designed for fast-paced broadcast use, at both its booth and at the Harris Allied booth. The DCT system also won a CSA at the Spring show.

New products arrived from across the Atlantic too. Ireland's AlgoRhythmic Technology launched its Audio Communication System (ACS), an integrated range of products designed to facilitate the global transfer, in real time, of uncompressed, 20-bit, mastering quality audio over standard digital telecom net-

works such as ISDN, T1/E1 and T3/E3 services. The modular design allows up to 56 channels of 20-bit audio to be transmitted and received simultaneously.

Closer to home, Newton Square, Pa.-based Solid Electronics (a fairly new company with a brand new product) debuted its DCP-1 dynamic composite compressor. The unit performs the functions of instantaneous limiting and composite low pass filtering in a single structure, thereby permitting maximum loudness, filter overshoot control and dynamic range. Its design employs an active linear amplifier as the limiting device, and its filter structure is configured in four separate sections, each with its own overshoot compensation circuit.

Neutrik displayed its line of A-Series and B-Series XLR receptacles, as well as its MiniCon, up-to-12-pole miniature connector.

## Digital manipulation

RCS displayed the Pro-Sonix family of

full-featured, multi- and single-track digital audio editors. Available in "M" and "S" models, the Pro-Sonix M version provides full multichannel mixing and editing of up to four stereo pairs or eight monaural tracks. The Pro-Sonix S permits recording and editing of a single stereo pair.

Pacific Recorders & Engineering Corp. introduced the ADX Ensemble, a digital audio workstation with an onboard, automated mixing surface. The rack-mounted digital signal processing unit allows simultaneous playback of eight tracks from the standard 2.4 GB hard drive, providing six track hours of uncompressed, linear PCM audio.

On display from Innovative Quality Software was the SAW. The SAW System allows 16-bit resolution recording and editing of CD- and DAT-quality sound files at sampling frequencies up to 48 kHz. It features four simultaneous stereo playback tracks and simultaneous synch record/play (CardD+ and TurtleBeach cards).

The ENCO Systems DAD486x digital audio delivery system was displayed at both the ENCO Systems and the Harris Allied booths. The booths were linked via a local area network to the Orban exhibit and its DSE 7000 digital audio workstation.

New features of the DAD486x on display this year included integrated Script functions, the ability to remotely access system features and control via a laptop computer and modem, a comprehensive security system to determine the access limitations of each individual user, and many increases in versatility of the various "virtual machines" within the software.

## Strategic alliances

Strategic alliances were prevalent throughout the show.

Arrakis Systems announced a strategic alliance with Wegener Communications.

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# In-Band DAB Keeps Moving Forward

by Judith Gross

**LOS ANGELES** It was the DAB "bus in a booth" according to one participant at the World Media Expo last month, referring to static, in-booth demonstrations instead of actual on-air testing by digital audio broadcasting system proponents.

Unlike a few years ago, U.S. DAB proponents were not quite ready to take their systems for a drive at the World Media Expo convention to wow the industry. But several weeks before the World Media Expo in Los Angeles, top radio industry executives did get a first hand, mobile listen to USA Digital's AM and FM DAB in Cincinnati and Chicago respectively.

However, at WME, the video of the tour, complete with A-B listening, marked the highlight of USA Digital's DAB developments. Both those who were fortunate enough to be on the actual on-air demos, as well as broadcasters who stopped by to listen to the "bus in a booth" demo at WME, said they were impressed with the improvement and agreed that the demonstration supports the in-band, on-channel (IBOC) approach of USA Digital.

## Pushing IBOC

"Now we intend to take a much more aggressive stand internationally to push for the IBOC approach," said NAB Board Member Randy Odeneal during a management session on DAB. "These developments make us all very optimistic."

USA Digital Spokesman Jeff Andrews said that the next step would be an actual, public mobile demonstration of both AM and FM systems, which was tentatively slated for the spring NAB show in Las Vegas in April. He also noted that talks with chip manufacturers are ongoing, and he expected to announce an agreement with a chip maker before that time.

USA Digital's actual on-air broadcasts in September included AM DAB and FM DAB. The AM signal was broadcast over a Group W experimental AM station at 1660 on the expanded AM band in Cincinnati. A drive along nearby highways showed the marked difference between the analog AM signal and the same music programming on the digital signal.

The switch to digital resulted in a wider frequency response, greater fidelity and a more "open" sound. The heavily processed analog AM was bandwidth-limited and had a greatly inferior sound by comparison.

"USA Digital AM sounds as good as our current FM analog signals," said NAB Board Member Alan Box, who has chaired the NAB's DAB Task Force for the past few years. His sentiments were echoed in the comments from other listeners who took the ride.

## FM-Quality AM

The USA Digital AM system, jointly developed with Xetron, was also demonstrated by Xetron at the Harris Allied booth at WME, fully compatible with a Harris DX-10 digitally modulated transmitter. The transmitter had no problem handling both an analog and digital AM signal.

Modifications to the transmitter to receive and transmit the digital signal are minor, and involve "only about a 20 minutes of work," according to Xetron's Dave Hartup.

With USA Digital's FM DAB system, the

striking difference revealed at the Chicago demo was the elimination of multipath and similar interference. A digital signal was broadcast simultaneously with the analog signal of CBS-owned WBBM-FM.

## A scope view

The video "road test" included a spectrum analyzer scope to illustrate the worst of the interference. During a drive through downtown Chicago, the spikes and narrow notches of multipath were not only visible on the scope, but audible in the analog signal.

But when the receiver was switched to DAB, the reception cleared up and was interference-free, even though the interference was still clearly visible on the scope.

The other U.S. in-band DAB systems, one from AT&T and another from Amati with backing from AT&T, made a showing at the World Media Expo as well. The Amati system, which uses the side lobes of an FM signal, was shown in a booth demo with simulated multipath conditions. This demonstration also showed how multipath interference is eliminated with a digital signal.

The AT&T is an IBAC (in-band, adjacent channel) DAB system also designed for the FM band. In a session at the Digital Radio Seminar, Nikil Jayant of AT&T showed how broadcasters might start planning for the transition from analog to digital.

Jayant maintains that interim steps could

include first IBOC DAB along with analog FM, then IBAC DAB co-existing with analog, and finally, switching off analog FM and using those frequencies to accommodate additional broadcasters in a situation Jayant calls IBRC—in-band, reserved channel.

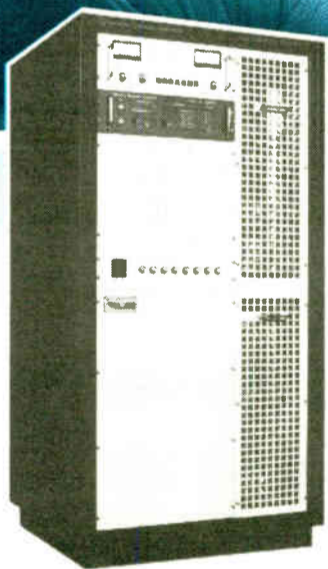
"Broadcasters have to start thinking now toward a time when there will be enough digital receiver penetration to support a total digital environment," Jayant said.

AT&T had hoped to have an over-the-air demonstration of the Amati system at the World Media Expo, but Jayant said that would now be slated for the NAB spring convention instead.

□ □ □

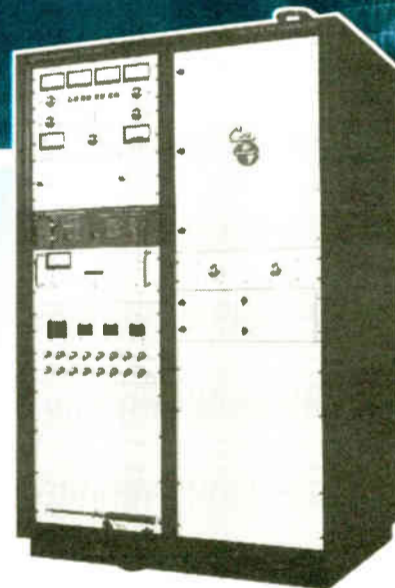
*Judith Gross has her own writing/public relations consultant firm, JG Communications, based in New York City. She can be reached at 718-392-3288.*

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# Engineers Need Management Skills

by Nancy Reist

**LOS ANGELES** Management can be a very important part of broadcast engineers' job duties, yet too often engineers have extensive technical backgrounds but little management training, according to the panelists at the SBE Engineering Conference's Management session, held at the 1994 World Media Expo.

The panelists addressed three areas of knowledge that could help engineers perform their jobs: budgeting, managing quality control, and familiarity with current broadcasting trends.

Marvin Born of WBNS-TV began the session by explaining the net present values technique of budgeting. He said that engineers need to understand budgets so they can communicate persuasively with general managers. If you can develop a budget that demonstrates the cost effectiveness of a piece of equipment, Born suggested, you have a better chance of convincing the GM to purchase it.

## Quality control

David Otey, chief engineer at KLRU-TV and engineering supervisor of the TV show "Austin City Limits," explained how he applied quality control theory to reduce technical problems in "Austin City Limits." He suggested that this model may help engineers cope with the tension that may arise between engineers—who are most concerned with the technical quality of the programming a station produces—and general managers who are more concerned with "the bottom line," and securing a consistently large audience at minimal cost.

## Quality control

Otey presented the Webster's Dictionary definition of quality control, "a system for maintaining desired standards in production or in a product, especially by inspecting samples of the product." He then contrasted the manufacturing model—which is product-oriented, amenable to sampling, and can be done without the customers' presence—with a service model. This is process-oriented and has less uniformity across time so that the effectiveness of sampling diminishes. Furthermore, the customers cannot be left out of the quality control loop since "nothing happens until the customer is there."

Otey said the broadcasting model incorporates some aspects of each. Since broadcasting is part of the entertainment industry, it is clearly a service. At the same time, he suggested, it's much easier to evaluate the quality of products, such as the technical quality of a production.

From an economic standpoint, he said the broadcaster's product is the audience. In commercial broadcasting, no one pays

for the programming. Instead advertisers pay for the audience's attention. "The broadcaster is in the business of creating an audience, which may then be sold or perhaps rented is a better term to the advertiser," Otey said.

The engineer usually is inclined to think of the programming and its quality as the station's product, while the GM needs to take the economic perspective which regards the audience as the product, he added.

## A distinct entity

Otey suggested that the quality control model may provide some answers to this conflict. He said engineers might do well to consider the engineering department as a distinct organization that exists to provide a service—technical quality—to the broadcast organization, which produces a distinctly different product: the audience.

Once you begin to evaluate the engineering department using the service model, Otey recommends looking at a couple of behavioral issues to improve quality. First, he suggests involving the staff in the problem-solving process. Even if the solution does not ultimately come from the staff, he explained, if they feel that they are part of the process, they are more likely to commit themselves to implementing the solution.

He added that it is very important not to make people feel defensive in the process of identifying the problem.

Otey also encourages engineers to foster an environment in which employees can accept the inevitable mistake. "To the engineer, trained in precision and accuracy, this may be very difficult, he said. "Nevertheless, it is essential that errors not carry with them a stigma. Only then can errors be seen as valuable. And they are valuable. Mistakes not only provide a starting point for education, but they also provide you, the manager, with a check on how well essential processes are being performed."

Ralph E. Evans III, of Evans & Associates, next discussed the importance of keeping abreast of changes that are

occurring in broadcasting. He said that the Information Superhighway is bringing about a "massive paradigm shift."

## Aware of the changes

Evans said digital equipment is becoming more capable and less expensive all the time. Currently broadcasters fill an important niche because syndicators cannot deliver their programs directly to listeners, he noted.

He speculated that things are going to change radically with the development of technologies that will give syndicators the ability to do so.

Evans warned that "channelization"—the broadcasters' tendency to identify themselves by their channels, will become a liability when this happens. He suggested that identification by product, rather than by channel, would reduce the broadcasters' vulnerability when the interactive technologies on the horizon come into their own. "You're going to get an audience saying I want what I want now," he said.

Evans also suggested that many formats that are not viable in limited geographical areas, could become important with the developing information infrastructure. Polka music, for example, has small, loyal audiences in many scattered locations. In one market, a polka station probably would have trouble generating enough advertising revenue to survive. But if people across the country all have access to an excellent polka service, it might be very successful.

Evans also advocated partnerships that could help broadcasters cope with the many changes they face. He emphasized the importance of accepting and understanding the changes that the Information Superhighway is bringing because "it's not going away."

## Reinventing The FCC

► continued from page 7

"We are trying to collapse that so there is one data entry," Eads said.

The commission also seeks to increase its clarity when giving written decisions. FCC staff members will undergo training programs that are designed to enhance their writing abilities, hopefully allowing them to communicate complex—"legalese" FCC decisions to radio station staffers who do not have law backgrounds. This, according to the FCC, should save stations hours of hit and miss layman-legal interpretations and expensive attorney fees.

Clear communication of FCC decisions would also allow a station to quickly comprehend FCC notices about missing renewal application elements and quickly rectify problems, hopefully before a competitor wanting the same frequency and his Washington attorney files a cross application.

In terms of being more responsive to radio-customer questions, the FCC also is creating a database of questions that stations staffers frequently ask when dealing with the commission, especially when renewing licenses.

An FCC clerk or official taking station phone calls could immediately access the data base for answers instead of promising "to get back to you on that."



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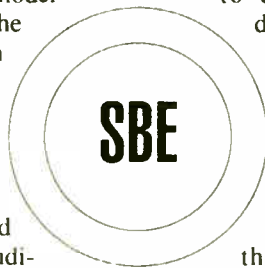
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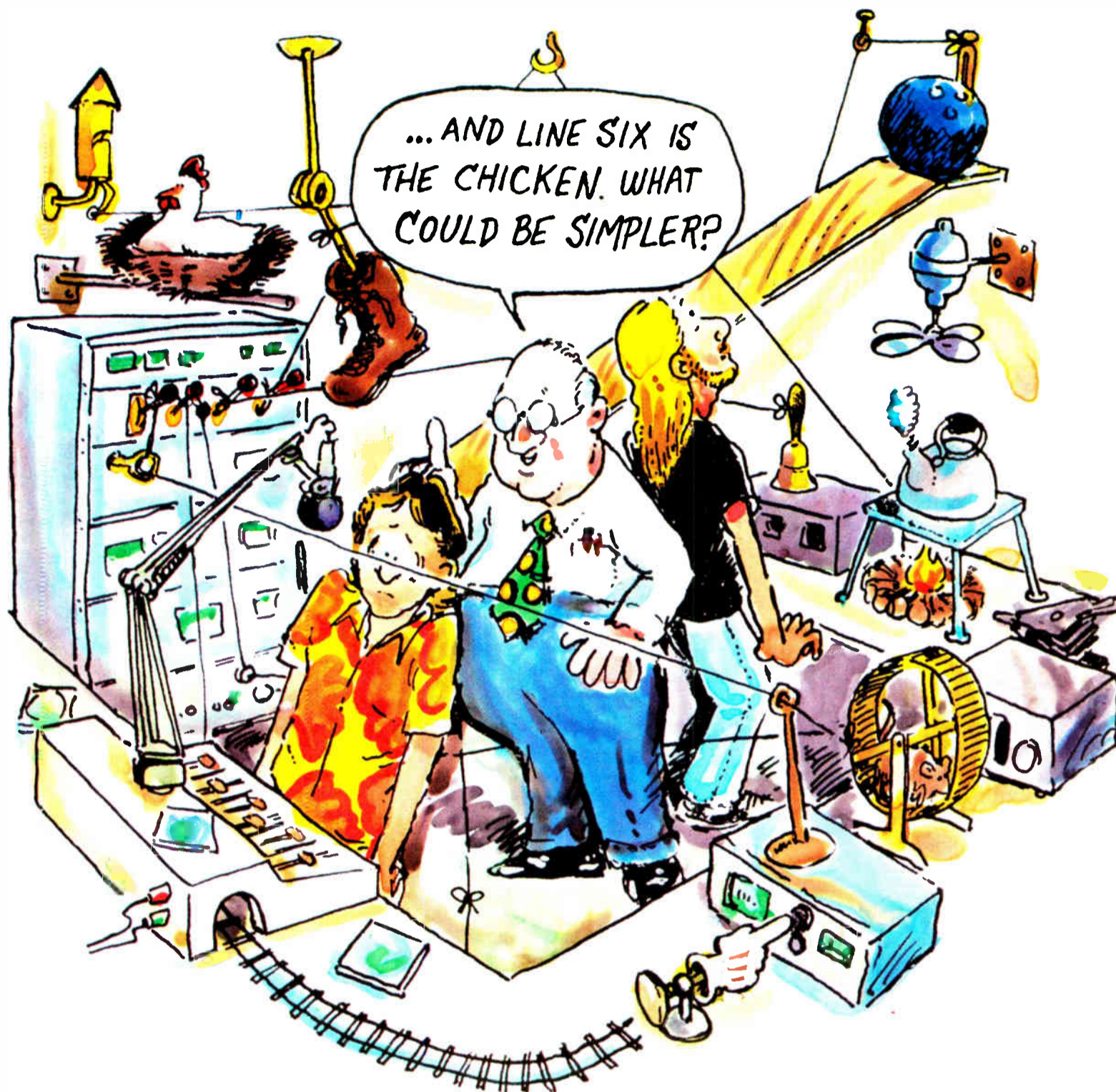
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# FAA No-Show At Session

by John Gatski

**LOS ANGELES** The Federal Aviation Administration (FAA) came off as the proverbial bad guy during a session that discussed the FAA's computer program that calculates potential broadcaster interference to aircraft communications.

The Society of Broadcast Engineers (SBE)-sponsored session, "AAM V4.2: What's New, and Other FCC/FAA Issues," included representatives from the FCC and several engineering consulting firms. The FAA sent no representative to the session.

Most of the dialogue concerned perceived shortcomings in the FAA's computer model. Initially developed in the late 1980s, the model is used to calculate potential interference from radio and TV broadcasts to aircraft navigations communications.

The FAA uses that information in deter-



mining whether to grant approval to broadcasters so they can locate their antennas at the desired location during new facility and upgrade construction. Some broadcasters' construction plans have been held up substantially by the FAA's process.

Dane Ericksen, a senior engineer at Hammett & Edison engineering firm, said the latest FAA computer model, version 4.2, is an improvement over the previous version, but the "worst case radio" performance used in the FAA calculations can "grossly overpredict interference."

Ericksen maintained that the computer model would not have become such an obstacle for broadcasters had the FAA allowed public comment from broadcasters during the adoption process.

"It never would have gotten to the point of the the FAA staff using it and being a burden to broadcasters," Ericksen said.

Consultant Robert Denny, Jr. concurred that broadcasters would fare much better during the FAA evaluation process if an average aeronautical radio, which is more interference resistant, is used in the calculations.

Denny also informed the audience that an FAA working group of general aviation, broadcasters and receiver representatives, formed early this year to address the receiver and other interference issues, was disbanded in early October.

Although a new working group is planned, the work now has to start all over again, according to Denny.

Westwood One Entertainment relied on the Telos Zephyr digital network audio transceiver to satisfy its sound requirements during live transmission from World Media Expo. Westwood One transmitted from both the Los Angeles Convention Center and the Westin Bonaventure Hotel.



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# Radio Can Do More in Wake of Nature's Fury

by Nancy Reist

**LOS ANGELES** No conference held in L.A. this year would be complete without a session dedicated to natural disasters. Memories of the last January's earthquake are fresh.

The Radio Television News Directors Association (RTNDA) offered, "When the Earth Moves," a roundtable discussion about L.A. radio's response to the earthquake and what the implications are for disaster coverage in general.

It's become a truism that radio truly shines and becomes a critical medium during disasters, but over the last several years

there has been a lot of debate about how well radio broadcasters actually serves the public in emergency situations.

Two questions dominated the discussion at the RTNDA session. First, are radio broadcasters sufficiently prepared to disseminate crucial information quickly and efficiently? Second, how does competition between radio stations affect the quality of emergency broadcasts?

## Be prepared

Participants agreed that advanced preparations are essential for effective emergency communication. Disasters can be sudden, unexpected and frightening, stimu-

lating adrenalin surges which can disrupt people's thinking. Emergency procedures should be clear and easy to implement.

Station personnel should all be very familiar with the procedures, so they will be able to perform well when they experience the inevitable stress that accompanies disasters.

The session began with a telescoped tape of KNX's first hour on the air following the quake. The chaos in the studio and the tension in the reporters' voices were obvious as they provided post-quake advice. A recording was played of a terrified reporter panicking when a large aftershock hit while she was giving a live report from the

collapsed student apartment building.

Richard Rudman, director of engineering at Los Angeles' KFVB, pointed out that while the broadcasts provided a lot of important information about what the people of Los Angeles should do to ensure their safety, KNX left out an element which Rudman considers essential to disaster coverage: reassurance.

## The initial confusion

Other participants commented about the speculation about power outages and the condition of the freeways.

Cliff Albert, news director for KFMB, a San Diego station, explained, "It is very difficult to get information in that first hour. Everything from size of the earthquake to the epicenter of the earthquake. A lot of stations have stored material that they pull out and go on the air with." He said the tapes include suggestions of what to do and reassuring statements to allay fears.

Rudman suggested that prerecorded carts with important emergency information can be coded with colors and numbers so the operator can easily figure out which ones to play. These carts can be attached to the rack with velcro, so they are less likely to fall and get lost. Engineers can carry a card in their wallets outlining emergency procedures.

Rudman added that people should know what their 'fear and panic mode' is and be prepared to compensate for it. Albert said his reporters now have survival kits in their cars and several members of the staff have keys to the transmitter building. Rudman also pointed out a contradiction in many stations' post-earthquake coverage.

## Using the phone

"Telephones. What is the first thing that most stations do? They do exactly what the emergency preparedness people tell us not to do: put people on the air who call us up. And then we say in the next breath, stay off the phones. Is this smart? Cooperating with government? Trying to keep lines open?" He recommended that stations consider buying a scanner. He said amateur radio groups were on the air immediately after the earthquake and provided a lot of valuable information which KFVB used. Others in the group said they had used this technique successfully for other types of disasters as well.

The roundtable participants also discussed another aspect of disaster preparation which radio stations should consider: community education. Even in areas like Southern California, where the potential for disasters like earthquakes is high, residents tend to neglect important precautions.

Radio stations can increase community awareness by periodically broadcasting brief PSAs. Albert said that KFVB experimented with a half-hour broadcast of a mock earthquake, "sort of like War of the Worlds." They broadcast a disclaimer every 60 seconds. The station simulated an earthquake broadcast, including emergency information. Despite the disclaimers, Albert said the broadcast was controversial. He maintained, however, that it succeeded in educating station listeners and making earthquake preparedness a more salient issue.

Undoubtedly, the most contentious issue discussed at the roundtable was where to draw the line between cooperation and competition in emergency situations.

continued on page 27 ►

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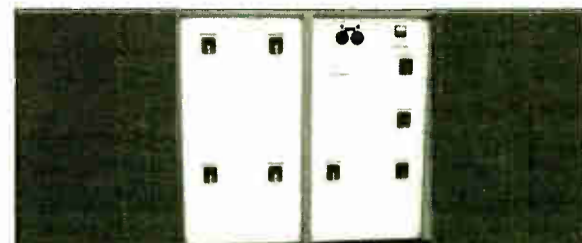


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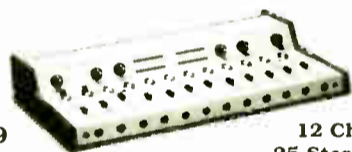
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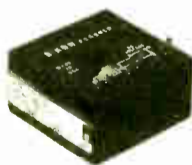
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# It's Live, It's Local And It Is Satellite

by Alan Haber

**LOS ANGELES** As the decade rolls on, and radio stations look for new ways to maximize profits, the appeal of carrying satellite programming has increased.

That's all well and good, but how can stations carry satellite programming and make it sound like it's originating locally? A lively and informative session at the recent NAB Radio Show, held at the World Media Expo, in Los Angeles explored ways in which this can be accomplished.

Session moderator Robert Hall, senior vice president of programming for ABC Radio Networks in Dallas, set the proceedings in motion when he told the audience that in the first years of the networks, most stations took network programming because the stations were on the edge of bankruptcy.

"The visionaries who saw that it could not only be cost-effective but could also compete in the market gave birth to a whole new breed of people that figured out how to make it work, make it sound great and to make a business out of it," he said.

The session panelists, he noted, "have excelled in making local radio stations successful with network programming." Mark Kiester, general manager of Z-Rock affiliate KUTZ in Austin, Texas, said his station's sales are up over 70 percent, and expenses are down about 30 percent, since abandoning oldies for the ABC Radio Networks product, one of the ABC/SMN 24-hour music formats.

## Promotion and marketing

Kiester said that dollars normally put toward research, which is handled by ABC, and higher-level personalities, are put into promotion and marketing, "which allows us to be as visible on the streets as our 100,000 watt class C competitor." The station does originate some local programming and maintains personalities that are primarily promotional event personalities. Z-Rock personalities are also used for local promotions. "Everything we do locally, we try to reflect the exact same attitude that the network has, and interface their personalities with ours," said Kiester. "Even on our local shows, we use the network's liners, as produced by them."

To his knowledge, Kiester said that advertisers have never complained about KUTZ not being a local radio station. In addition, "The listeners really don't care where the product's coming from—it could be coming from the moon as long as it's meeting their needs, and that's all that matters," he said.

## Many ways

There isn't just one way to make satellite programming sound local, said Marty Miller, production director for KLAC(AM) and KZLA-FM in Glendale, Calif. (KLAC is an affiliate of Westwood One's AM Only format). "I think it varies by the market you're in, varies by the format, what your audience is," he said.

The former classic country AM

switched to AM Only last December 5, and is now totally automated. "I am the staff—the computer and myself are KLAC," he noted.

Miller's "main concentration is getting the physical sound of the radio station to sound like there's somebody in there operating the thing." Listeners can call in their requests to the voice mail request lines. Promos run telling listeners they can call in with comments and questions—Miller said he personally answers everybody who calls and forwards suggestions to his program director.

## Understand the programming so as to construct the local breaks appropriately.

Westwood One, which is only about 20 miles away from the station, does supply personalities for local appearances.

Miller echoed Kiester's comments about not being a local station. "Our audience, in my opinion, doesn't really care where the programming comes from," he said, adding that he didn't think anybody would be able to tell the programming was coming from a satellite "25,000 miles in space" if they listened to the station.

## Services-oriented

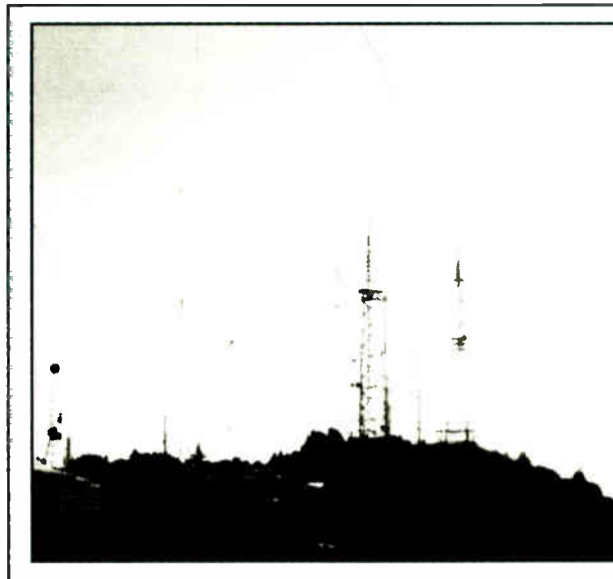
Now a consultant with Creative Radio Productions in Woburn, Mass., Phil Sirkin was program director at WEEI(AM) in Boston when the station added New York-based Don Imus in the Morning to its lineup. Sirkin said WEEI took a lot of flak from buyers, newspapers and the public for carrying the program because it was the first nationally syndicated morning show in Boston.

In an effort to make the show sound as local as possible, the station decided which services had to be included. Because Imus is driven by current events, it was determined that local news, sports, weather and traffic had to be built in, and "it had to be credible," according to Sirkin. Of course, it also had to flow with the rest of the program.

Sirkin told the audience to understand the program in question so when they construct their local breaks, the local elements sound as if they're actually part of the program.

To that end, Imus's jingles, traffic sounder and blues beds were secured to make the show sound in Boston as identical as possible to how it sounds in New York. In addition, the station installed a local traffic announcer with the same voice quality as the traffic announcer in New York. The local news and sports anchors cross-promoted the people who do the news and sports on Imus's program. Bottom line: "You work at it as if it's your regular programming, and craft it as carefully as the rest of your programming," Sirkin said. "It'll perform better for you."

KQEG, in LaCrosse, Wisconsin, is a



Harris Allied and the SBE sponsored a tour of radio and TV towers yesterday, 6,000 feet above the Los Angeles Convention Center on scenic Mount Wilson. The sold-out tour took a close-up look at towers and transmitter facilities on Video and Audio Roads which comprise the antenna farm for a majority of Los Angeles-area stations.

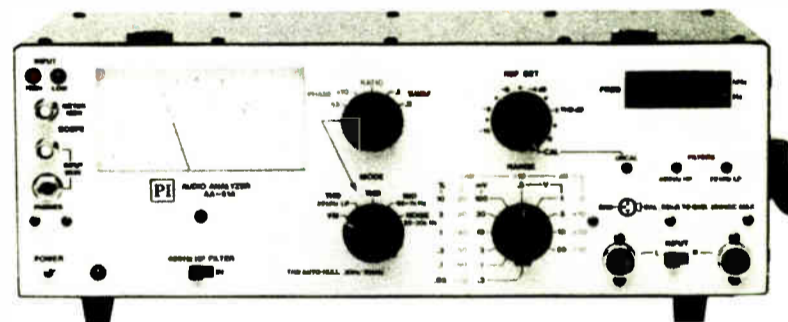
24-hour a day affiliate of ABC Radio Network's Pure Gold, one of the ABC/SMN 24-hour music formats. There are no local disc jockeys at the station. Perry St. John, KQEG's vice president and head of operations, told the audience that the first thing they need to be successful with local programming is a staff that is dedicated to the satellite—that they don't have anybody on staff who is fighting the fact that the station's gone satellite, he said. He also told them to hire people who can tell time, so satellite breaks are carried out smoothly.

"This is not a cakewalk," St. John said. "This is not easy. Satellite programming, in many instances, is harder than actually having a disc jockey there. You've really got to be organized. You've got to really

work on the liners."

What are St. John's keys to making satellite programming work at the local level? Cross plugging is extremely important, he said. Have management keep a hands-on attitude; know the computer, know the operation. Make sure staff is composed of quality people—in programming, sales and production. Have regular two-way contact with program vendors; bounce things off of them, from programming to promotional ideas. Foster's community involvement: KQEG runs only local PSAs, eschewing the nationally-syndicated variety. Have people in the local community come in and record PSAs. And utilize network talent; bring them in for personal appearances.

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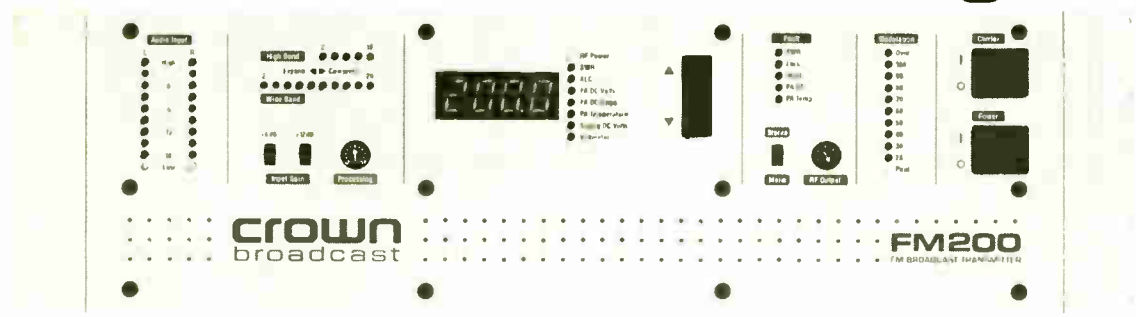
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# A Glance at the Future of News Broadcasts

by Nancy Reist

**LOS ANGELES** When Jeff Greenfield, senior correspondent and media analyst for ABC News, announced that the RTNDA's second annual "News of the Future" session, held here at the World Media Expo last month, was momentous because it was the "5000th panel on the information superhighway... this week" he was not far from the truth.

The observation that digital technologies are changing the way we do business has become the broadcast cliché of the '90s.

Acknowledging this, Greenfield added, "So here's the question before us this morning: so what?" He then asked the panelists to consider a string of questions on topics ranging from the changing role of advertising to the impact that greater freedom of choice for the audience will have on definitions of news.

## Custom newsrooms

Mel Martin, station manager of WINK-TV, began the discussion by describing the ways his station's custom-designed computer system and its impact on the newsroom. He emphasized the importance of finding a system that makes it easier for journalists to concentrate on news, rather than adding distractions.

First, he recommended an open-platform system. "By that I mean if you want to work on a Mac, you can work on a Mac. If you want to work on a Windows machine, you can work on a Windows machine."

Martin explained this facilitates collaboration. So, for example, the station's lawyer may check stories more easily. The open platform also allows his station to add pre-existing software, like a spelling checker, to the system. "The reality of it is that most of your kids have better equipment at home than you have on your desk. That's really a scandal in the industry."

Martin also suggested that an effective newsroom system should be able to archive a station's newscasts, so that a reporter doing a story on a specific topic would be able to find the text of everything the station had broadcast before on that topic. He explained that this is an invaluable research tool and also helps new reporters develop the background to ask tough, intelligent questions.

Finally, he emphasized that systems should be easy to use. "If they are easy, it allows the journalist to think about journalism instead of is it F3 or Alt Shift Command 4. We think that's really important. The result of that is that you get better journalism."

Robert Garcia, CBS Radio News Executive Producer, described CBS' windows driven Personal Audio Computer Editor (PACE). The system has four audio channels and uses familiar broadcast icons such as tape recorders with reels that actually turn when the channel they represent is active.

Garcia said the system is so easy to use that none of his staff have read the manual. He admitted, however, that the version he described for the convention was an elaborate prototype and cost in the range of "a low-end BMW," but he said a much cheaper desktop version is under development.

When he was asked what systems like this meant for employment opportunities for engineers, Garcia said he anticipates

some changes in the roles of employees. He said systems like PACE allow reporters to do more things and work more autonomously. "We have correspondents who can produce themselves, we have producers who can be correspondents. This kind of technology puts that kind of capability in everybody's hands in a very simplified way...The point is to be a journalist and not have to worry about the technical aspects of it."

## A shift in duties

He added that this increased autonomy does not have to mean less work for the technicians. It could simply mean

different work "that frees the technicians to go out in the field and perhaps bring in a line from Capitol Hill that we don't already have hard wired, so that we can get a hearing that we ordinarily wouldn't get. It frees them up to do more maintenance. So, no, it doesn't spell the end in technicians, but it could spell a change in roles."

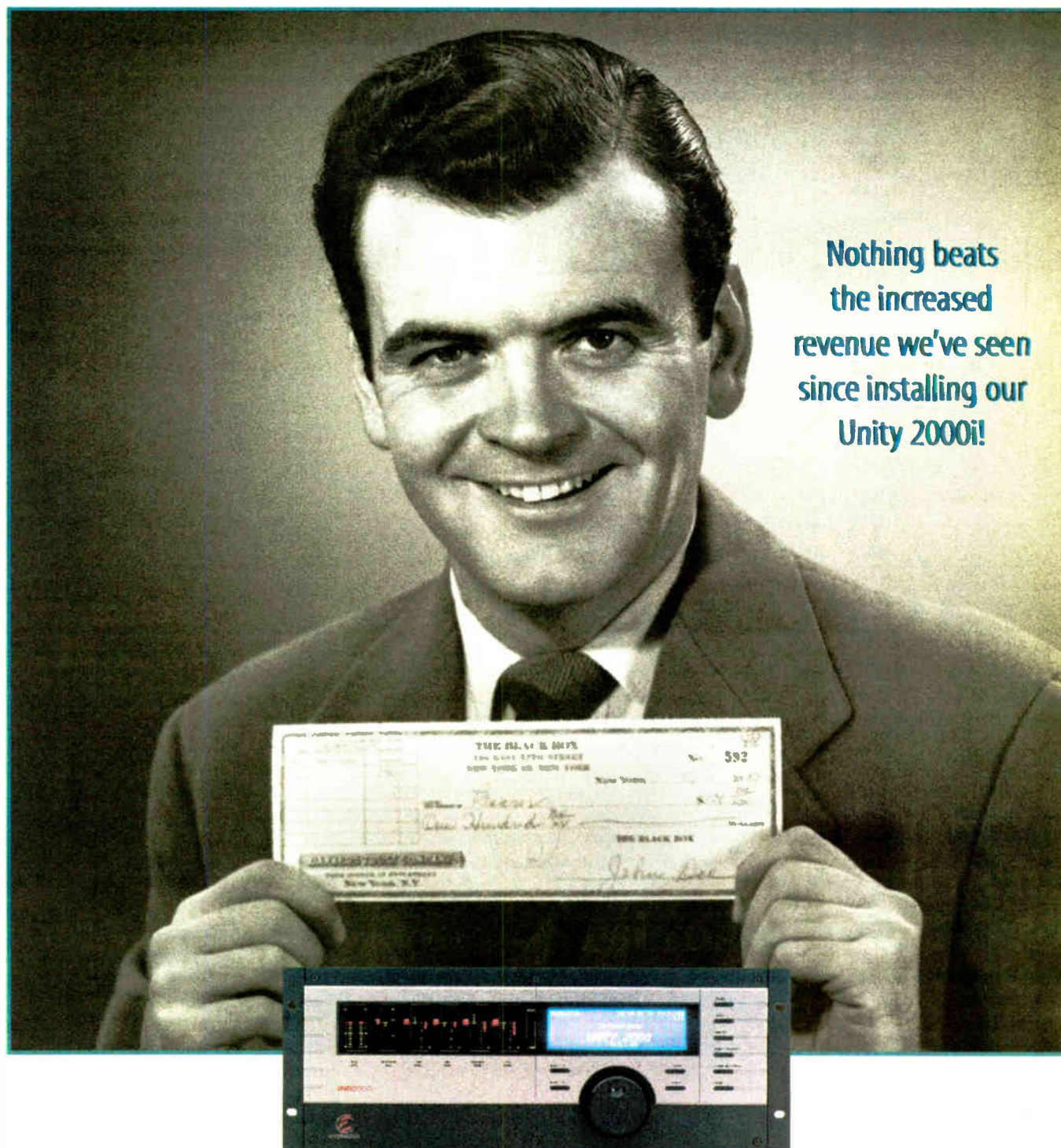
Tony Masiello, vice-president of technology operations at CBS Radio, hinted at another possible role change when he demonstrated the results of some tests of USA Digital Radio's in-band DAB on the AM band. Masiello pointed out that "for years the radio industry has witnessed a decline in the

perceived quality by its users."

He continued: "With the advent of CDs and MiniDisc and digital audio tape, cable radio, satellite delivered audio channels, the ubiquitous radio has fallen behind in quality. And particularly AM, where most of our news and information is distributed, is perceived as a low-end medium."

Masiello said that the system USA Digital developed addresses this problem by delivering the signal digitally, using the same frequencies that radio stations use for their analog broadcasts. The analog and digital signals are delivered simultaneously. The AM demonstration

continued on page 27 ►



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# Flexibility Key to D-Radio System

by Mel Lambert

**LOS ANGELES** Given my predilection for centralized control of broadcast functions, I make few excuses for devoting this special World Media Expo edition of Digital Domain to a new product that I consider to represent a major breakthrough in system design. The new D-RADIO from ABC-Digital, the design and manufacturing division of the Australian Broadcasting Corporation, comprises a multichannel, fully assignable control surface, connected via a simple serial link to a DSP rack.

Unsurprisingly, D-RADIO is designed to connect directly to D-CART, the firm's

hard-disk replay system, capable of instant access to commercials, liners, promos, music tracks and so on.

## Flexibility

For me, the key to D-RADIO's appeal is that the control surface can be dynamically re-mapped to handle a wide variety of configurations. The mixer/controller features two-color display monitors located either side of a central metering bay. The left-hand side of the controller features a bank of eight long-throw faders with companion on/off and cue/start buttons. Four additional faders and various monitoring and additional controls are situated on the right.

Via a simple set up/adjust screen, any signal source can be assigned to any channel fader position, including mono

The result is "an on-air console that's not only at the forefront of digital technology but also simple to use.

"With digital audio broadcasting becoming a reality within the next few years," Lieng concedes, "we wanted to produce an on-air system that would take

**The primary application for D-RADIO will be DJ operation, a single button press places the board in operator-assist mode.**

and stereo signals. (A bank of high-precision pre-amps are available for mic-level sources.)

In addition, assigning a source also allocates a remote function to the corresponding cue/start button, enabling remote stop/start of CD player, DAT machines, MiniDisc and other devices requiring a simple relay closure or logic command. A four-digit alphanumeric tag above each fader labels its signal source. Being a virtual design, no audio actually passes through the console. In reality, the console serves as a fully-assignable, serial controller for the D-RADIO Studio Computer, which in turn controls the Digital Mixer, where signal-processing takes place.

The computer and mixer are housed in a separate rack, which can be located at a considerable distance from the on-air studio.

The right-hand screen carries the playback sequence listings for D-CART. With so many option choices, the system's developers obviously decided that more control buttons would have complicated the clean functionality of the control surface. Instead, both screen displays feature touch screens, allowing events in the D-CART schedule, for example, to be moved or altered with a simple movement of a prehensile digit. Any changes made in the pre-programmed running order will be logged automatically in the air playback list. The system also keeps track of elapsed and real-time durations.

## DJ applications

Although the primary application for D-RADIO will be DJ operation, a single button press places the board in operator-assist mode, with assignable controls being remapped to a companion engineer's station. Programmable panning and four-band EQ also is available.

Functionality aside, the D-RADIO control surface is a major achievement in ergonomics. While the color scheme and curved surfaces might not be to everybody's taste—one wag at World Media Expo was heard to liken the rounded, organic-looking shapes to "The Batman Board."

There is no denying that the system is extremely easy to operate, and fully integrates control of every on-air function. "We've combined our experience in developing D-CART," ABC-Digital's R&D Manager Spencer Lieng said, "with the collective wisdom of our broadcasters."

broadcasters into the next millennium."

"First," adds John Parker, ABC-Digital's General Manager, "we wanted to build a digital console that was familiar and dependable, yet flexible and powerful. Our Virtual Console was the result. We then wanted to (provide) as much control as we could put within reach. So we designed two touch-screens; these display and control the virtual console assignment, and interface with D-RADIO's integrated scheduling, messaging and networked information system."

D-RADIO boasts an all-digital signal



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ABC-Digital's D-Radio

path, and features a wide variety of enhancements to radio productivity. For example, the virtual console is instantly reconfigurable to suit specific applications. Console I/O designations and other system parameters can be stored on a companion hard drive.

Several D-RADIO systems already form the centerpiece of Australian Broadcasting Corporation's new Southbank Center in Melbourne.

For more information, contact Australian Broadcasting Corporation, ABC Ultimo Center, 700 Harris Street, Ultimo NSW 2007, Sydney, Australia; +61 2 333-2609; Fax +61 2 333-1413.

□ □ □

Mel Lambert is principal of Media&Marketing, a Los Angeles-based consulting service for the professional audio industry, he can be reached at 818-753-9510.



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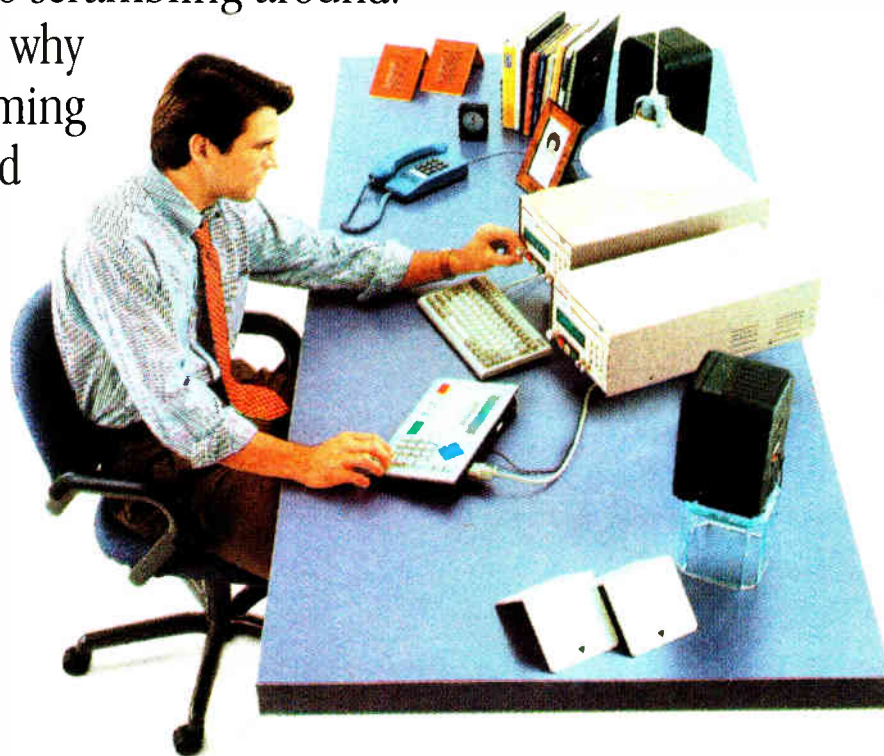
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World Radio History

# Future of News on The Radio

► continued from page 23 compared digital and analog broadcasts of a 10 kilowatt station in Cincinnati at 1660. The difference between the quality of the two signals was striking.

### DAB's coming

On the demonstration tape, the digital signal was clear and clean while the analog signal sounded distant and muzzy. (It would have been interesting to hear a comparison between the digital AM signal and a CD, but USA Digital did not include that listening test in the session.)

Masiello also demonstrated the FM in-band DAB. The difference between the quality of the two signals was not nearly as obvious, but Masiello pointed out that it does reduce multipath interference significantly. He estimated that the transmitter equipment should be available in three to five years and should cost about 25-50 thousand dollars.

David Kogen, Reuters' director of media services in the United Kingdom and Ireland, described another significant change lurking around the digital corner.

Kogen said Reuters uses new technologies to develop new markets. "We're multi-market, not multi-media."

### Market development

He said that market development is becoming increasingly important as digital compression frees up satellite space and diminishes Reuters' technical advantage. As a result, Reuters is developing more local programs for local markets.

The panel concluded with the first live demonstration of Time Warner's Interactive News On Demand, a prototype service that is due to be tested in the next few months as part of Time Warner's full service network. The system allows viewers to choose from a menu of different local and national news programs.

Viewers can select the stories they want to see—though of course the stories have to be produced somewhere in the system. Many unedited events also are available. Though there were a few minor technical bugs—the program started skipping once and the picture quality was not adequate for the huge screens in the auditorium—the system was very impressive.

By the session's end, there were more unanswered questions than Greenfield had posed in the introduction. Questions like where is the money going to come from? What happens to image advertising?

With these and other questions, the RTNDA will have material for new installments of their "News of the Future" session for many years to me.

# Radio and Disasters

► continued from page 18

Morrie Goodman, director of public affairs for the Federal Emergency Management Agency (FEMA), said many of the broadcasters did a very good job, but he was critical of the competitive environment which led to some inconsistencies and editorializing. "I think there comes a time when you stop becoming a private enterprise looking for business and profit and personality and exposure. You become an emergency communicator." He said he established a recovery channel on cable television so he could speak to people directly without having to go through the media.

### Competitive coverage

Albert agreed that many L.A. stations acted competitively in their coverage and asked "Does a KNX or a KFWB all of a sudden give up the exclusive nature of their broadcasts? That morning you'll hear interviews with the mayor, with the sheriff, with the Bishop of the Catholic Church, and all of those interviews are being done separately." This meant that a number of

overworked officials and relief agencies had to put extra work into working with stations individually.

Albert also suggested that in some cases, stations focused on coverage that was more suited for improving ratings and garnering awards than helping people cope with the quake's aftermath.

"If you watched and listened to the coverage in the next several days after the quake, he said, it became a battle many people think, not so much to provide public information, but to delve into controversy, to get the best interviews with the survivors of the Northridge apartment complex, to get the best video and the best audio."

Some people said that despite these problems, they believed competition was healthy for all news coverage, including disasters. They pointed out that a large number of reporters working for a variety of stations are more likely to uncover stories that a single organization could easily overlook. They said that some stations' emergency coverage would inevitably be superior and that these stations would

attract most of the listeners.

Goodman suggested a joint information center which could draw upon the resources of all the stations and produce consistent, high-quality reports. It would be a cooperative effort but could incorporate some of the positive aspects of competition. Announcers and reporters from different stations could take turns on the mic. The programming could replace individual local broadcasts. Alternatively, the joint information center could provide news feeds which local stations could play at specified times.

In closing the session, Albert said "We come here every year. We all talk about what we need to do and the fact that we can do it better, and then a year later, we all sit around and say that we did it the same way."

One can only hope that next time it will be different.



Jon Young, vice president of worldwide sales for Fort Collins, Colo.-based Arrakis Systems Inc. explained its strategic new alliance with Wegener Communications at World Media Expo. The new alliance creates the first integrated digital satellite controlled workstation (see overall coverage story, page 11).

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# Time to Stop the War Among Broadcasters

by Nancy Reist

**LOS ANGELES** The RTNDA titled the roundtable discussion about the differences and similarities of public and commercial radio news, "Radio Wars."

Moderator Dick Haefner began the discussion by saying that a public broadcaster had recently told him he hoped the session didn't deteriorate into a situation where both sides are taking shots at each other. Haefner said his response had been that he hoped it would, "and in a nutshell that kind of sums up the basic difference."

Nevertheless, when Jim Farley, general manager of news programming at ABC Radio News in New York and the initial spokesperson for the commercial side, began the discussion, he said he felt that antagonism between the two sides was inappropriate.

## The differences

"When I was asked to come to this round table, I asked what was the genesis for this 'Radio Wars' commercial versus public. God knows there have been wars in my tenure in the industry, but I wasn't aware of any recently. Dick told me that some of the folks in public radio felt that they had been the victims of shots by people in commercial radio.

"So I thought about it, and I've heard the shots from both sides over the course of the years. Sticks and stones, big deal. But along with those shots, there's the comment by people in commercial radio, 'I never listen to public radio.' And people in public radio saying, 'I never listen to commercial radio.' We have fools in both camps, because we have so much to learn from each other."

Farley went on to suggest that public radio can teach journalists about depth, while commercial radio can offer breadth, speed and discipline. He gave the example of "Marketplace" which began as "In the Marketplace," a program which CBS produced for American Public Radio (now Public Radio International). "It was a perfectly good business, financial program. If you had to compare it to a breakfast food, I'd call it whole wheat toast." Later, American Public Radio decided to have it produced by public radio people.

## More flavor

"If I had to compare it to breakfast food now, it would be a bagel with cream cheese, tomato and lox and probably some nice Bermuda onion. It has a lot more flavor to it. It's a totally different program aimed at a different audience. Neither is a bad program. Both were excellent programs with a difference in approach, and I think it's a prime example of how we can learn from each other."

Victor Bremer, vice president of broadcasting for Minnesota Public Radio, provided the introductory remarks for the public broadcasting perspective. Bremer said that he had worked for several years in commercial radio before he began his tenure with MPR, so he was in a good position to compare the two.

He shifted the analysis to the audiences and pointed out that the demographics between the two are different. "The best predictor of listening to public broadcasting is the level of education. The demographics that we have are that they have a college degree or more. There are exceptions, but it's overwhelming."

## More money

Bremer said the public radio audience also tends to be younger and more affluent than that of commercial radio news. He attributed many of the contrasts between commercial and public radio news to these demographic differences.

Although "war" is too strong a term for the discussion that followed, there were some significant differences of opinion in the room. Many of these centered on the relative success of the two versions of news and how they generated their funding.

Both sides were able to support claims that their brand of radio news was enjoying increasing success. Differences arose, however, around how that success was defined. Commercial broadcasters cited major markets where AM news talk stations garner some of the highest ratings, despite the overall dominance of FM stations.

Farley also pointed out that both local and national commercial news groups were holding their own in international competitions.

Public radio advocates countered that, while they do not have the biggest share in most markets, they have a strong loyal following in a very desirable demographic. Bremer added that public radio measures success differently, "We don't ever feel that we have to be number one."

This led to the biggest point of contention: funding.

## Funding arguments

Some of the commercial broadcasters claimed that public radio journalists did not feel bound to attract an audience and therefore were able to employ looser news standards, such as "long is good."

The public radio response was that they do watch ratings and that they are very

**Stations share a need to increase the audience for radio news—be they commercial or public stations.**

concerned about their audience. It is simply a different audience.

Furthermore, Bremer explained that there is a growing philosophy among public radio professionals that dependence on public funding is becoming increasingly dangerous. He said that many people expect public funds to disappear, and that stations that rely on it for the bulk of their expenses may be in serious trouble.

Thus, many stations are putting more

emphasis on membership drives, grants and "enhanced underwriting."

Both sides agreed that public stations dominate news on the FM band, since commercial news and news/talk stations are primarily located on the AM band. This could be considered a significant advantage for the public stations, since FM music stations are so popular and some listeners might transfer their allegiance to the FM news stations.

According to some of the public radio advocates, however, this advantage is probably nullified by the fact that the majority of the public stations are found in the "educational ghetto" on the left side of the dial.

Participants agreed that despite the differences in audience, funding and depth versus brevity, they share a need to increase the audience for radio news and to urge stations to feature more news. Several people commented that while radio news seems to be prospering in large urban areas, it is extremely limited in small rural markets.

There were also echoes of the topic that dominated the conference as a whole: What impact will the new information technologies have on radio news? No clear answers emerged, but audience members seemed to agree that commercial and public radio journalists could and should coexist and support each other.

## New Gear at WME '94

► continued from page 12

The Arrakis Gemini and Digi-Link workstations, combined with Wegener's patented ANCS (Addressable Network Control System) and DR96 series MPEG-II digital audio receivers, will create DISC (Digitally Integrated Satellite Control). The system is a fully integrated satellite point-to-multipoint radio distribution, storage and production system that combines digital storage, playback operations, full-function editing, production, addressable satellite network control and distribution. It also brings E-mail, news service, tagged text, RDS and multimedia to each affiliate.

SpaceCom Systems debuted SatVantage, a new turnkey satellite transmission service for the radio industry. In addition, the company announced an agreement reached with SW Networks, the new radio network formed as a joint venture between Sony Software and Warner Music Group, to use SatVantage for satellite distribution of SW Network digital audio and data to affiliates.

In a similar move, International Tapetronics Corp. (ITC) announced alliances with Micro Technology (MTU), Spectral and MPR.

In the first alliance, MTU agreed to provide ITC with a custom version of its Micro-Editor. The editor will become part of an integrated system for audio management specifically designed for radio.

Spectral will provide ITC with a custom version of its Prisma audio editor. The editing capabilities of the Spectral audio product will be incorporated with the ITC DigiCenter audio delivery product.

The alliance with MPR allows ITC to provide broadcasters with the benefits of Digital Courier International products (audio distribution and transportation products that deliver audio over ISDN commercial networks).

Additionally, ITC announced upgraded features to its DigiCenter, including

expanded networking capabilities and enhanced on-air functions and interfaces. The company also showcased PD MATE, a new product that merges schedule files and offers an interactive interface to add, move, delete or scan activities.

## Station services

Metro Networks exhibited the 1994 National Traffic Study. This study reveals the feelings of radio listeners about traffic reports on music intensive vs. news stations, whether listeners think traffic reports are interruptions, and when and how many reports should run in one day.

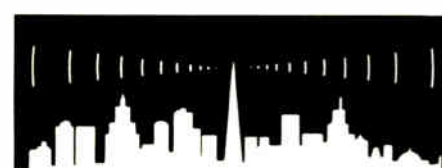
Prime Sports Radio displayed its 24-hour menus of sports programming, running seven days a week. The aim is to provide sports fans with timely access to all the major sports news and information of the day. Access is made possible by Liberty Sports, including Prime, the national sports cable network and its 22 regional affiliates across the country.

On hand from KD Kanopy was the Majestic 200, an instant set-up canopy. The KD Majestic is stronger and lighter than the KD Original, and it doesn't rust. The 10' X 10' aluminum frame weighs 48 pounds.

ABC Radio Networks offered the ABC News Wire, which features customized state news, national/international news and entertainment/AM show prep.

Talk America Radio Network exhibited its unduplicated programming 24 hours a day, seven days a week. Stations can choose one hour or every hour, depending on need. The lineup includes Doug Stephan, "Good Day, USA;" Dr. Derrick DeSilva, "Ask the Doctor;" Jack Anderson, "Watch on Washington;" and Jerry Brown, "We the People."

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# Heroic Lone Ranger Rode First on Radio

by Richard W. O'Donnell

## HONOLULU Heigh-ho, Silver!

Of late, the media has paid a great deal of attention to the 45th anniversary of the television version of "The Lone Ranger" in September and that Clayton Moore, star of the series, turned 80 the same month.

Overlooked in all the publicity about the masked rider was the fact that the great western hero actually has his roots in old-time radio. Without radio, there would be no Lone Ranger.

In fact, you can still hear his radio classics today on 130 stations nationwide.

## Still popular

"Without a doubt, 'The Lone Ranger' is our most popular program," said Carl Amari, producer of the syndicated "When Radio Was." "We play The Ranger more often than any other show. His adventures still attract a large audience."

Amari said the old-time westerns and other shows are syndicated to 130 stations nationally. His company, Radio Spirits Inc., is based in Buffalo Grove, Ill. "We own worldwide radio rights to the Lone Ranger shows," Amari said proudly. "It's a great show, and the masked rider is still the perfect role model for our young Americans. He was quite a man. There aren't many true heroes around today to set a good example for the younger generation. We need more heroes, many of them of the same wholesome caliber as The Lone Ranger."

Everybody knows "The Lone Ranger" used to shout "Heigh-ho Silver" as he galloped off on his mighty stallion in hot pursuit of outlaws.

And everybody knows Tonto, the masked man's faithful companion, referred to him as "kemo sabe." However, there has been a bit of a dispute over what Tonto really meant when

he said "kemo sabe."

For years it was assumed the term meant "worthy scout" or "loyal friend." Perhaps it still does. The verdict is not yet in.

Clayton Moore, TV's Ranger, claimed kemo sabe was an Iroquois term for "faithful friend." There are six different Iroquois nations, each with a language of its own. Thus far, researchers have been unable to track down the famous phrase. Needless to say, they are still searching.

It also has been claimed "kemo sabe" is a variation of "quien no sabe," which in Spanish roughly translated means "he who doesn't understand." Tonto reportedly is Spanish for "fool." The theory is those who originally wrote and produced the show used the kemo sabe and Tonto names as a couple of inside jokes. If so, nobody is about to admit it now.

Another theory is that kemo sabe and Tonto were a couple of names that just popped into the writers' minds when they were scripting the early radio shows, and the names just stuck. In all probability, this is true, as far as Tonto is concerned. As for kemo sabe, that's a different story—so stayed tuned.

## From 1933 to now

The Ranger and Tonto, it should be noted, first galloped out of the West on Jan. 30, 1933. The original shows were aired on Detroit's WXYZ.

All you had to do was close your eyes, use your imagination and you were as far west as any cowboy has ever been able to make it—saddle sores to boot. You, on the other hand, were cozy and comfortable in a living room chair close to the radio.

In no time at all, the Ranger became America's favorite western hero. Three times a week, he chased the bad guys and proved that right was right, and it was wrong to be the wrong type of cowboy.

Next came the Lone Ranger serials. Every Saturday for 15 chapters, the youngsters followed his adventures. Then there were three movies: "The Lone Ranger," in 1956; "The Lone Ranger and The Lost City of Gold," in 1958; and "Legend of The Lone Ranger," in 1981.

The Lone Ranger comic strip also was a big success. And, of course, there was television.

## Defender against evil

For 60 years now, the Lone Ranger has been a stalwart defender of all that is good against all that is evil. He is the straightest shooter of all times. He does not swear, smoke or drink. He is polite to women and always tips his hat. He respects everybody—regardless of race, creed or color, villains included. He is a solid-gold hero, pure of heart and noble in purpose. He is what Don Quixote hoped to be.

"The Lone Ranger was really the Green Hornet's great uncle, you know," said Fred Foy, who served as narrator of the famous radio show for several years. "Dan Reid, as everybody knows, was the Lone Ranger's nephew, but few people realize that Dan was also Britt Reid's father. And Britt Reid was the Green Hornet. That makes the Lone Ranger the Green Hornet's great uncle," Foy continued.

"Both 'The Lone Ranger' and 'The Green Hornet' were created by George

W. Trendle and Fran Striker and were broadcast from WXYZ in Detroit, where there was a stock company of actors who appeared on both programs," Foy said. "The Ranger was on Monday, Wednesday and Friday, and the Hornet was on Tuesday and Thursday nights. The Detroit stock company was busy five nights a week for years."

Foy, who is retired and now lives in New England, was not the original narrator of the shows. "There were three or four of them before I came along," Foy said. "And one of them was Brace Beemer, who became radio's most

This blend of Rossini and Liszt worked beautifully. In fact, there are many who believe the entire Lone Ranger score was composed especially for the program.

As the music filled the air, the hoofbeats of the great horse Silver could be heard. Then the orchestra faded, and the Ranger's shout of "Heigh-ho, Silver!" came over the airwaves followed by gunshots and more hoofbeats.

It was at this point that narrator Foy proclaimed, "A fiery horse with the speed of light, a cloud of dust and a hearty heigh-ho, Silver! The Lone Ranger!"



The Lone Ranger and his faithful sidekick, Tonto

famous Lone Ranger." He took over after an actor named Earl Graser, who played the part for seven years, was killed in 1941 in a car accident. Foy explained, "Brace, who played the part the remaining years on radio, died in 1965 at age 62."

Some of the regulars on the show were Paul Hughes, who played Thunder Martin, the Ranger's old friend, and Harry Golder and Ernie Stanley. Golder played a variety of parts, and Stanley was Dan Reid. Two other performers on the show became Hollywood stars. One was the late John Hodiak; the other was comedian Danny Thomas. In his Detroit days, Thomas was known as Amos Jacobs, Foy said.

## Youth-oriented western

George Trendle, owner of station WXYZ, wanted to have a radio show "dedicated to youth" and decided on a series set in the pioneer days in the west. He hired Fran Striker, a Buffalo, N.Y., writer, to create the hero. Thus, the Lone Ranger was born.

The first Ranger program in 1933 was part of a three-station network linked with WOR in New York and WGN in Chicago. In short order, the show was heard on hundreds of stations nationally.

First, there was the triumphant theme from "William Tell Overture," by Rossini followed by excerpts from Liszt's "Les Préludes," when the action required during the show.

A bit more music and then Foy would be heard again. He said, "With his faithful Indian companion, Tonto, the daring and resourceful masked rider of the plains led the fight for law and order in the early western United States. Nowhere in the pages of history can one find a greater champion of justice. Return with us now to those thrilling days of yesteryear. From out of the past come the thundering hoofbeats of the great horse Silver. The Lone Ranger rides again!"

And the masked rider would shout, "Come on, Silver! Let's go, big fellow! Heigh-ho, Silver! Away!"

## On radio-only to 1954


The Lone Ranger and his loyal sidekick, Tonto, remained on the radio until Sept. 3, 1954. During that time, there were 3,234 broadcasts. One actor, John Todd, played Tonto in all of them. He might have known what the name really meant.

The definitive Lone Ranger episode is entitled "Bryant's Gap." On this program, the Ranger explains to young Dan Reid why he became a masked rider. The same episode also features the bitter end of Butch Cavendish, the villain who killed Daniel Reid Sr., Dan's father and the Ranger's brother. In this particular show, the story of the great horse Silver is told, as well as the Ranger's meeting with Tonto.

The history of the Lone Ranger is fascinating. He was one of six Texas fangers

continued on page 34 ►

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# Lone Ranger Is Still Radio Hero

► continued from page 30

dispatched to round up the notorious Hole-in-the-Wall gang headed by Cavendish. At Bryant's Gap, the rangers were ambushed and presumably all of them were killed. The elder Dan Reid was one of them.

However, one of the Rangers, who also happened to be Reid's brother, survived. His name was John Reid.

"Over the years, there was been a bit of confusion about the Lone Ranger's real name," said Karl Rommel of Lansing, Mich., a long-time collector of Ranger memorabilia. "I don't know why that has happened.

"From time to time, I will hear the Ranger identified by some other name. It happens every once in a while," Rommel

continued. "For that reason, I want to make it crystal clear: the Lone Ranger's real name was John Reid. There isn't any doubt about that."

### Lone Ranger meets Tonto

After the ambush at Bryant's Gap, John Reid was nursed back to health by an Indian known as Tonto. "Me, Tonto," said the Indian as the wounded man revived. "What of the other rangers?" asked his patient. "They were all my friends. One was my brother."

"Other Texas Rangers all dead," Tonto said. "You only ranger left. You LONE RANGER now."

That was how it all began. Tonto buried five men at Bryant's Gap. But there were six graves. The surviving brother knew he

was marked for death by the Cavendish gang, if they discovered he was alive.

That is also why he donned his famous

silver mine. That is why the Ranger used only silver bullets. He was easily the best shot in the west, but he never aimed to kill.

In the 1938 movie serial, "The Lone Ranger," the history of the great hero was changed a bit. In the serial, there were

**Silver was a stallion the Ranger captured in Wild Horse Canyon. He was not only the quickest, but the most intelligent horse in the west.**

mask. He did not want the outlaws to know he was alive. His mask was made from the cloth of a black vest belonging to his brother. The Reid brothers owned a

five Texas Rangers, and the idea was to figure out which one of them was also the Lone Ranger. One by one, these rangers were killed off during the 15 chapters.

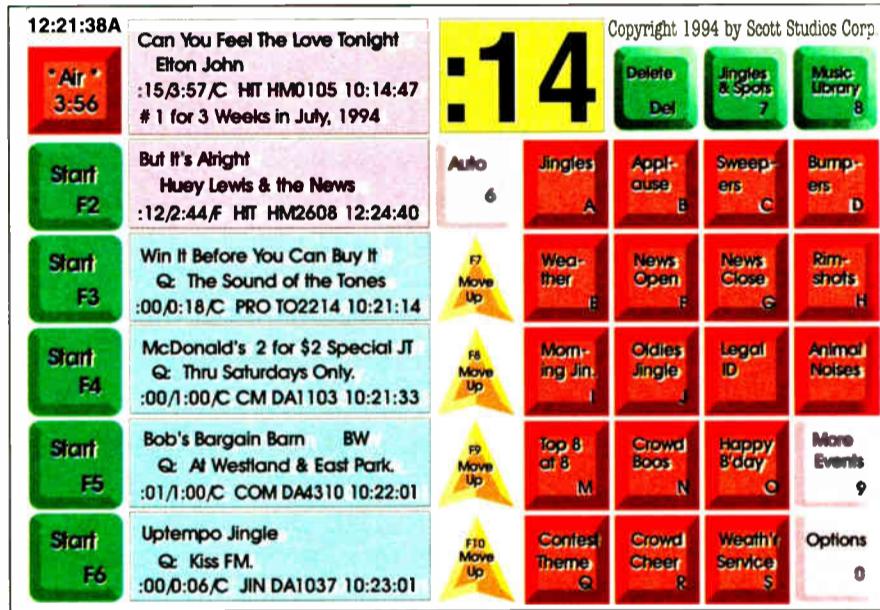
At the end, only the Lone Ranger was

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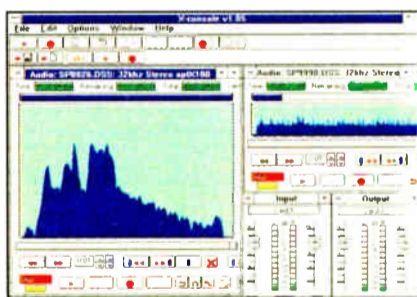
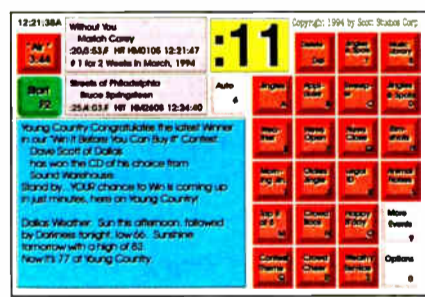
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left. He was played by Lee Powell, a western star who was killed during World War II. In a sequel, made a couple of years later, the leading role was played by western star Bob Livingston. The second serial was called "The Lone Ranger Rides Again."

### Silver's story

Silver was a stallion the Ranger captured in Wild Horse Canyon. He was not only the quickest, but the most intelligent horse in the West. Scout, it should be noted, was Tonto's third horse and the Indian's favorite. Tonto's earlier horses were White Feller and Paint.

For the record, it also should be noted that one of WXYZ's earliest Lone Rangers—before Graser and Beamer took over—was a chap named George Seaton, who later became a successful Hollywood producer.

The old magic is still there today. The "William Tell Overture" comes alive, and the hearty, "Heigh-ho, Silver" has lost none of its gusto. Here's hoping the Lone Ranger and Tonto, too, will be galloping through the badlands for decades to come.

□ □ □

Richard W. O'Donnell is a semi-retired writer living in Honolulu, who formerly wrote an "off-beat" news column for the Boston Globe. He can be reached at 808-456-8578.

Circle (213) On Reader Service Card

# KMBD Honors 35-Year Veteran of Station

by Bob Rusk

**TILLAMOOK, Ore.** The framed sheet music lining the walls of the front office at KTIL-FM in Tillamook, Ore., tells part of this station's story. Pop standards from the 1930s through the '50s, such as "Forty-Second Street," "Buttons and Bows" and "Aba Daba Honeymoon" greet the eyes—and ears—of visitors.

But the music is only the beginning. Even more popular with listeners is Mildred Davy, an 83-year-old grandmother who has hosted "It's A Woman's World" at the station for more than 30 years.

Until recently, Mildred's show was heard on KTIL(AM). But now the AM is all-talk, featuring national programs such as Rush Limbaugh's. Local programming—including Mildred's show—moved over to the FM.

But Mildred remains an important part of the AM side. In January 1994, station owner Van Moe changed the call letters to honor Mildred for her years of service. He chose KMBD, which stands for Mildred Berkey Davy. Berkey is Mildred's maiden name.

"When listeners think of talk and Tillamook County, the first thing that comes to mind is Mildred," Moe says. "We thought that after 32 years it was a fitting tribute."

Mildred's program, which airs weekday mornings from 9:30-10:00, is more like a visit with neighbors than a radio broadcast. Mildred has lived in Tillamook since the age of five and knows just about everybody in this farming community of 4,000 residents.

She regularly announces birthday greetings to locals, plays a song of the morning and even reads mail from friends who are vacationing in exotic spots.

One letter with an Alaska postmark told of an expedition to the Last Frontier. It seems her friends got an eyeful when they encountered a 500-pound bear. But instead of becoming the bear's dinner, they survived the encounter and dined on their own delicious meal of moose meat stew and angel biscuits.

Even when she does her commercials—which are all live copy—Mildred sounds like she's at home chatting over coffee with a neighbor. As she talks about the weekly specials at Heusser's Grocery, for instance, Mildred lets her listeners know that "if you put the nectarines on the kitchen windowsill for a few days, they'll ripen up nicely in the sun."

That's the kind of advertising, with a personal touch, that radio can do most effectively. And that's why Cal Heusser, who operates the store that's been in the family since 1918, does all of his advertising on Mildred's show.

"Heusser's was one of my first sponsors," Mildred explains with a big smile after her show. "My mother traded with the store when we first moved to town. Us kids ran barefoot to Heusser's for years. Later on when I married, I kept on trading there."

"And I still trade there. I know the grapes are good, because I bought some. I wouldn't advertise them if I thought, 'Gosh, I wonder if those things are any good today.' I wouldn't send people down to spend their good money for bad merchandise."

Adds Cal Heusser, "Mildred is quite a gal. Her show gets good results for us."

Not surprisingly, there is a waiting list for advertisers who want on "It's A Woman's World." Mildred has two sponsors a day, and each gets two spots.

According to KTIL's Van Moe, "It's A Woman's World" is the station's most expensive program.

"We have small market rates," he acknowledges. "Our lowest rates are \$8.00 for a :30 and \$10.00 for a :60. It's \$35.00 for half of Mildred's show."

"The spots on her show are :60s, but sometimes they run two minutes each. It all depends on what she has in mind,"

some pretty impressive guests on the show—including such political luminaries as the late Nelson Rockefeller—who would later serve as vice president under Gerald Ford.

done "It's A Woman's World" from are Brazil, Australia and England. Last July she did it from Germany.

"That was such fun!" Mildred says. "It was 6:30 at night in Germany and 9:30 in

**Mildred has had some pretty impressive guests on the show—including such political luminaries as the late Nelson Rockefeller.**

"I didn't have the foggiest notion what I was doing," Mildred confesses with a

the morning in Tillamook. I talked about the day I had spent touring the WDR radio network in Cologne."

In all of her years on the air, Mildred says that the way she does "It's A Woman's World" has remained virtually the same. The biggest change is that she now works just half a day, getting to the station at about 8:00 and leaving at noon.

Over the years, she has also been the consistency that's held the station together through changes in management and ownership. Current owner Van Moe, who began his radio career in Kansas and then went into the construction business in Southern California, credits Mildred for making the transition smooth when he and his wife bought the station eight years ago.

"Mildred provided the perfect liaison with the community," he stresses. "When you come into a community, you need to meet a lot of people. Mildred introduced us to everybody and made it easy for us to come in."

Listeners can expect Mildred's warm grandmotherly voice to remain on the air. Mildred, who happily reports that she enjoys excellent health, has no plans to retire.

"I have good genes," she says. "My mother was 96 when she departed this vale of tears. As long as I feel good, there's no reason why I can't keep on going."



Mildred Berkey Davy dominates Tillamook's airwaves.

adds Moe. "It's all off-the-cuff. But it produces."

"It's A Woman's World"—named after the popular song by the Four Aces that is also the show's theme—went on the air in 1963. But Mildred began working at KTIL in 1959.

"I was offered jobs around town through the years," Mildred says, "but decided to stay home and raise my son. When he began junior high school and didn't need me home all day, the station's then-owner asked me to come out just to answer the phone."

"I told my husband if I didn't take the job, it would be because I was a real stinker," Mildred remembers. "There really was no reason not to take the job. So I took it and answered the phone and typed copy. In late 1962, new owners from New York came out and asked if we had a woman broadcaster. The engineer said, 'No. But I know who could do it.' That's how I went on the air."

Mildred quickly found herself doing three different shows at KTIL, as well as selling ad time and typing copy.

"It's A Woman's World" made its debut on Jan. 7, 1963. "I started out with 15 minutes," says Mildred. "That lasted for about a week. After that, there was so much demand we expanded the program to 30 minutes."

"Many times over the years, listeners have asked us to increase it to an hour. But leaving it at half an hour is the smartest thing I've ever done. You should be on just long enough to get in what's important. I'd rather have people say, 'Gosh, is she through already?' rather than, 'My God, is that woman still talking?' Always leave your listeners wanting more."

Through the years, Mildred has had

chuckle. "but we got by just fine."

Most of Mildred's guests, however, are from the community, such as the superintendent of the school district or organizers of a book sale to benefit the library.

Mildred has also visited more than 50 countries and likes to take her show on the road. Whenever she's on foreign soil, she calls the station and does remote broadcasts by phone. Among the countries she's

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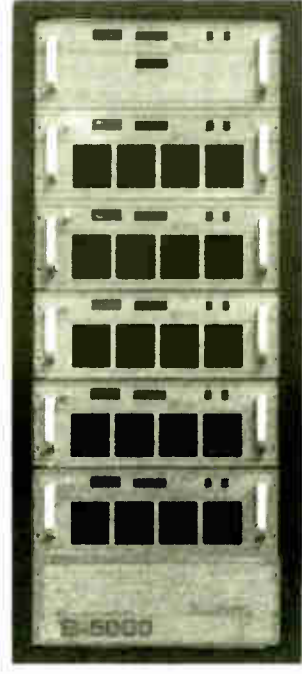


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READER SERVICE NO. 147

# WORKBENCH

## DAT Walkman Great for Field Work

by John Bisset

**SPRINGFIELD, Va.** Next time you pull the machine to blow out the dust and clean the heads and pinch roller on your ITC Series 99 recorder, take a look under the transport. Recently, we had a complaint from air staff that the machine sounded like the motor had sand in it. Sure enough, as the capstan motor spun, a grittiness could be heard.

Abiding by the "keep it simple" rule of troubleshooting, we



Sony TCD-D7

looked under the machine at the spinning motor. To one side was the flexible plastic ribbon cable that supplies power to the front panel push buttons.

This flat cable usually runs along the right side of the machine as it makes its way to the rear of the unit. For some reason, the ribbon cable had warped and bowed outward—toward the spinning motor.

The "sound of sand" in the motor actually was the motor "sanding" off the insulation of the ribbon cable. It was a close call; the motor hadn't completely sanded through the insulation, so there were no fireworks.

Panduit Corp. manufactures some adhesive-backed ribbon connector anchors that work well in keeping the ribbon cable attached to the side of the machine and away from the motor. The anchors have a little flexible clip that permits the cable to be slipped into place, without the use of wire-ties.

★ ★ ★

We're all familiar with the portable cassette recorders used for field interviews and actualities. If you're ready for a step up to the digital world, circle **Reader Service 80** and look at budgeting the Sony portable DAT for your field recording.

Not only is the cost of the TCD-D7 DAT Walkman very competitive with the analog cassette counterparts (less than \$600), you can't beat the fidelity.

The Sony uses a stereo miniature 1/8-inch plug for the mic input,

and an XLR-to-mini-plug adapter is necessary to feed a mono mic into the system. Figure 1 shows the wiring configuration if you're not using a stereo mic. The recorder is about the size of a Walkman and runs for about 3-1/2 to 4 hours on four AA cells. The sexy, blue backlit LCD display includes a battery gauge and a VU meter. The recorder will accept either a stereo mic or stereo line input. The output can be switched between headphones or line out, plus there is digital in and out via a seven-pin proprietary connector.

**Radio World's** Tube Talk columnist John Diamantis, engineering manager for W B I G - F M / W G M S - F M / W T E M ( A M ) showed me this little find, and let me listen to a recording of one of their jocks riding the Twilight Zone's

Tower of Terror at Disneyworld in Orlando, Fla.

The built-in auto level control did a fantastic job of riding gain as the talent described in a normal voice what was happening, then screamed as the ride suddenly dropped 13 stories in a matter of seconds.

The auto-level control can be

switched between a fast reacting "speech" mode or a slower reacting "music" mode. Leave it to Sony to develop such a versatile recorder. If you're planning your 1995 capital budget, be sure to include the Sony TCD-D7 DAT Walkman.

★ ★ ★

While we're on the subject of field recording, if you haven't seen the SKG transport racks, circle **Reader Service 159**. These transport cases with built-in rack rails are very light, and though they aren't designed for the kind of pounding a commercial carrier might give, for local remotes they can't be beat.

For less than \$100, you get a rack in a transport case, rack screws, and even a blank panel to keep the rails plumb before you install your equipment. Both the front and rear cover panels are removable, and the indentations on the tops and bottoms make the cases stackable.

If you don't need the foam inserts and rugged sides that are standard with most rack transport cases, consider the budget-priced SKG series.

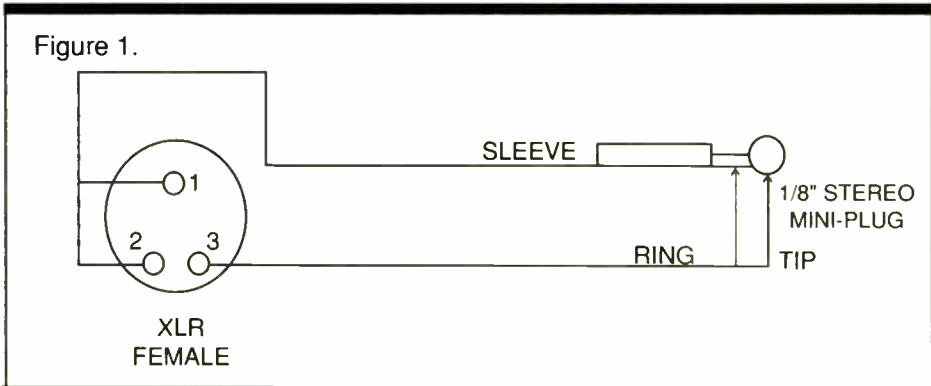
★ ★ ★

While servicing a Continental FM transmitter recently, I

uncovered the name of a company that rebuilds the gating cards. These cards are approximately \$250 new from Continental, so if you have some spares, it makes good economic sense to have your old cards rebuilt.

Jim O'Donahue worked for Vectrol, the manufacturer of the original gating cards used by Continental. In 1984, he left the

Though not a supplier of broadcast parts, Jim is quick to recognize the importance of stations staying on the air. Keeping this in mind, Powercon Electronics will turn around boards in one day if necessary, and the boards are rebuilt and balanced for a flat \$85 charge. This charge includes replacement of all the electrolytics plus



company to form Powercon Electronics, an industrial electronic repair facility.

Among the control components his company repairs and rebuilds are the Continental gating cards (both those manufactured by Vectrol, as well as the newer cards from Phasetronics), the power control board and the power monitor board.

According to O'Donahue, these boards originally were built with a lot of matched components. As the boards age, the component values can drift and the gating boards get out of balance. When the three-phase output is no longer balanced, the most common symptom is a tripping of the plate circuit breaker.

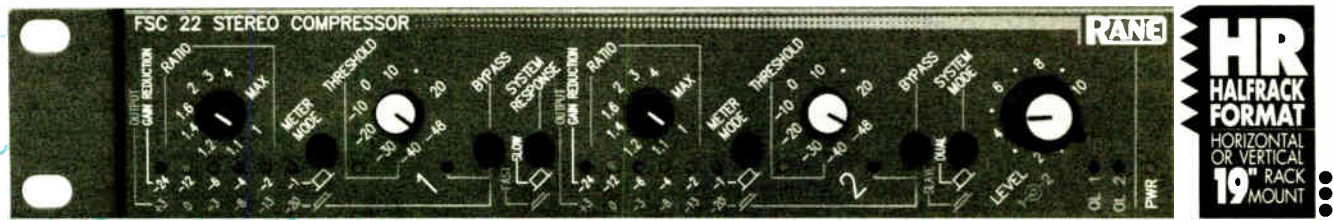
a re-balance of the circuitry.

For more information, circle **Reader Service 172** or call Powercon Electronics at 813-932-7722. If you have a Continental transmitter that uses these gating cards, send off for the information and file it with your Continental manual. Better yet, write Powercon's number in the manual for future reference.

□ □ □

John Bisset is a principal with Multiphase, a contract engineering and special projects company based in Washington, D.C. He can be reached at 703-323-7180. Fax submissions for the Workbench column to 703-764-0751. Printed submissions qualify for SBE Certification credit.

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The FSC 22 is very big on performance and features. Like switchable attack/release response, dual-mode metering to display either gain reduction or output level, and an Input Trim switch to match -10dBV or +4dBu systems for minimum noise and maximum headroom. It's even got those clever new Neutrik connectors that accept three-pin or 1/4" connectors!

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900 MHz breakthrough!

# New technology launches wireless speaker revolution...

Recoton develops breakthrough technology which transmits stereo sound through walls, ceilings and floors up to 150 feet.

By Charles Anton

If you had to name just one new product "the most innovative of the year," what would you choose? Well, at the recent *International Consumer Electronics Show*, critics gave Recoton's new wireless stereo speaker system the *Design and Engineering Award* for being the "most innovative and outstanding new product."

Recoton was able to introduce this whole new generation of powerful wireless speakers due to the advent of 900 MHz technology. This newly approved breakthrough enables Recoton's wireless speakers to rival the sound of expensive wired speakers.

**Recently approved technology.** In June of 1989, the *Federal Communications Commission* allocated a band of radio frequencies stretching from 902 to 928 MHz for wireless, in-home product applications. Recoton, one of the world's leading wireless speaker manufacturers, took advantage of the FCC ruling by creating and introducing a new speaker system that utilizes the recently approved frequency band to transmit clearer, stronger stereo signals throughout your home.

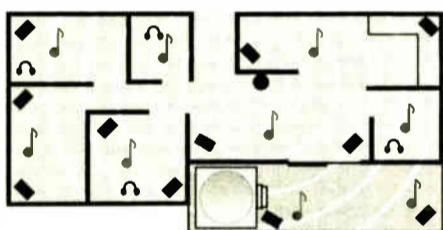


**Crisp sound throughout your home.** Just imagine being able to listen to your stereo, TV, VCR or CD player in any room of your home without having to run miles of speaker wire. Plus, you'll never have to worry about range because the new 900 MHz technology allows

**150 foot range through walls!**

Recoton gives you the freedom to listen to music wherever you want. Your music is no longer limited to the room your stereo is in. With the wireless headphones you can listen to your TV, stereo or CD player while you move freely between rooms, exercise or do other activities. And unlike infrared headphones, you don't have to be in a line-of-sight with the transmitter, giving you a full 150 foot range.

The headphones and speakers have their own built-in receiver, so no wires are needed between you and your stereo. One transmitter operates an unlimited number of speakers and headphones.



Recoton's transmitter sends music through walls to wireless speakers over a 70,000 square foot area.

stereo signals to travel over distances of 150 feet or more through walls, ceilings and floors without losing sound quality.

**One transmitter, unlimited receivers.** The powerful transmitter plugs into a headphone, audio-out or tape-out jack on your stereo or TV component, transmitting music wirelessly to your speakers or headphones. The speakers plug into an outlet. The one transmitter can broadcast to an unlimited number of stereo speakers and headphones. And since each speaker contains its own built in receiver/amplifier, there are no wires running from the stereo to the speakers.

**Full dynamic range.**

The speaker, mounted in a bookshelf-sized acoustically constructed cabinet, provides a two-way bass reflex design for individual bass boost control. Full dynamic range is achieved by the use of a 2" tweeter and 4" woofer. Plus, automatic digital lock-in



Breakthrough wireless speaker design blankets your home with music.

tuning guarantees optimum reception and eliminates drift. The new technology provides static-free, interference-free sound in virtually any environment. These speakers are also self-amplified; they can't be blown out no matter what your stereo's wattage.

**Stereo or hi-fi, you decide.** These speakers have the option of either stereo or hi-fi sound. You can use two speakers, one set on right channel and the other on left, for full stereo separation. Or, if you just want an extra speaker in another room, set it on mono and listen to both channels on one speaker. Mono combines both left and right channels for hi-fi sound. This option lets you put a pair of speakers in the den and get full stereo separation or put one speaker in the kitchen and get complete hi-fi sound.



These wireless stereo headphones have a built-in receiver.

**Factory direct savings.** Our commitment to quality and factory direct pricing allows us to sell more wireless speakers than anyone! For this reason, you can get these speakers far below retail with our 30 day "Dare to Compare" money-back guarantee and full one year manufacturer's warranty. For a limited time, the Recoton transmitter is only \$69. It will operate an unlimited number of wireless speakers priced at \$89 and wireless headphones at \$69 each. Your order will be processed in 72 hours and shipped UPS.

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 Frequency Response: 50 Hz-15 KHz

**Don't take our word for it.** Try it yourself. We're so sure you'll love the new award-winning Recoton wireless speaker system that we offer you the **Dare to Compare Speaker Challenge**. Compare Recoton's rich sound quality to that of any \$200 wired speaker. If you're not completely convinced that these wireless speakers offer the same outstanding sound quality as wired speakers, simply return them within 30 days for a full "No Questions Asked" refund.

Recoton's Design and Engineering Award



# Running Radio

**Special Report:**  
Japanese Radio,  
See p. 52

Your Resource for Business, Programming & Sales

## Paul Harvey: The Best of His Story

*Editor's note: Paul Harvey delivered the keynote address and received the NAB Spirit of Broadcasting Award at NAB's Radio Luncheon, Oct. 14. He was interviewed for this article prior to the World Media Expo.*

by Alan Haber

**LOS ANGELES** The voice calls your senses to attention: "Hello Americans, I'm Paul Harvey. You know what the news is. In a minute, you're going to hear 'The Rest of the Story.'" The venerable newscaster and commentator pauses after the word "hear," and picks up again, revving up like an engine into the rest of his sentence. After a self-voiced spot for GM Quick Lube Plus Oil Changes, he exits the starting gate: "Now," he says, "today's (pause) Rest of the Story."

Harvey, who rises at 3:30 a.m., well ahead of the cracking of eggshells over hot skillets in towns of all sizes across the United States, is heard every week by 24 million people, both here and abroad, on the ABC Radio Network. During his morning and noon news programs Monday through Saturday, and the wildly popular "The Rest of the Story" heard each weekday, he delivers honesty, affection and irony no matter the topic or urgency at hand.

"The Rest of the Story" began in 1946 as a part of Harvey's news broadcasts and became an independent series in 1976. Harvey's son, whom he refers to as "young Paul," works full-time on these slices of human nature with his father.

From the beginning, Harvey said, it was his feeling "that we must both entertain and inform. If we inform without entertaining, we end up talking to ourselves. If we entertain without informing, we're wasting this wonderful opportunity to inform. So, it seems to me we have to combine them in order to embrace the largest possible audience for what they want to know, and then for what they need to know."

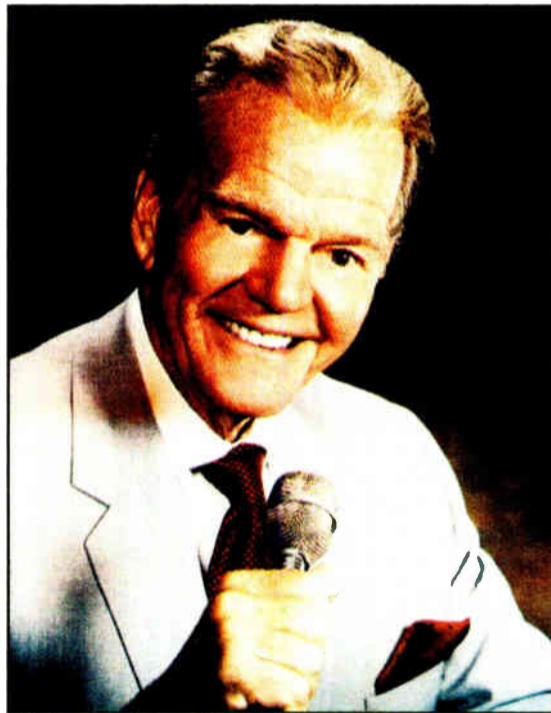
### In the beginning

"That's a few wagon greasums back down the road," said Harvey, laughing, when asked to whisk himself back along the well-traveled road to his start in broadcasting. His first open mic was at hometown station KVOO in Tulsa, Okla., while he was still in high school. "In those days, we did everything," he remembered. "Announcing and selling, and covering Bob Wills and His Texas Playboys, and sweeping out at night, and reading the news off the wires, and playing the guitar."

Radio fascinated young Harvey. As a

boy, he made crystal sets in cigar boxes and sold them for a dollar to his pals. "I guess I grew up with radio," he said, "though my wife suggests neither of us has really grown up yet."

When he was only 14, Harvey said



ABC Radio's Paul Harvey

that a schoolteacher took him "by the hand" and walked him "down to KVOO and told the program director this young fellow ought to be on the radio." Harvey remembered his teacher—"This is in Oklahoma, remember," he said—as "kind of a Shakespearean type, and she had me saying 'eye-ther' and 'neye-ther' and rolling my 'R's,' and I had to get re-educated in order to sound Okie."

### Radio migration

Harvey's next stops on the way to ABC were at KXOK in St. Louis, which was owned by the St. Louis Star Times (he was the station's news and special events director), and WKZO in Kalamazoo, Mich., where he was program director.

Did he enjoy being at the helm of a station? "Well, it didn't keep me from being on the air in those days," he said. "You know, in all of our old WKRP's, we did more than one thing. The program director also did his stint on the air. "At WKZO, he handled news and—surprise—sports. He did play by play, mostly for tennis and Ban Johnson minor league baseball broadcasts, with wife Lynne right beside him doing color."

Bountiful credit is given by Harvey to his wife Lynne, to whom he has been married for 54 years, for helping him channel his efforts in the area of news. He said his radio career has basically been a partnership with Lynne.

Harvey's nearly 50-year career with ABC Radio began in the mid-1940s. Imagining himself broadcasting from the top floor of Chicago's Merchandise Mart all those years ago, he remembered being "thrilled, so excited, I guess, to be on the network."

Then, as now, he was fixed on but a single listener rather than a large audience. "When I'm pondering something that's coming out of my typewriter, I really kind of bounce this off a relative in St. Louis, a housewife down there who is my wife's older sister," he said. "I ask myself very often, is Aunt Betty interested in this, and/or would Aunt Betty understand this, and if I get two negatives, it goes in the wastebasket. I never think of myself as talking to more than one person."

### Technology

Satellite technology has helped Harvey to be able to initiate his broadcasts from his home base in Chicago, or from studios in his Arizona home or his Missouri farm. "The satellite has given me limitless opportunities to move about,"

he said, adding that the ability to get studio quality from anywhere has been the most significant change in technol-

ogy affecting him.

News gathering, he said, has matured. "My goodness, when I remember the old rip-and-read days on KVOO, and then I see the facilities that are at the disposal of any one of our affiliate stations these days, there's just no comparison," he said. "We have the whole world at our fingertips now, from anywhere."

Harvey said we're all learning from the events that shape our world. "I think it's not one world," he noted. "And we've had to learn that very painfully. We haven't quite learned it yet."

### Best Lesson

The best lesson we can learn from world events, he offered, is "that we can lead only by example. Presently, we're throwing our weight around in 20 different countries, under the umbrella of the United Nations, and we're not really solving anything." His solution? "Mind our own business," he said, "and do it so well that we'll be a lighthouse for the world."

Despite all of the news stories filling our collective consciousness these days, Harvey feels that "news developments that are of really, truly lasting significance are not in the headlines at all." He still rises every morning "with enthusiasm." He can't wait to "get to the teletypes and see what foolish and heroic things 200 people have been doing all night for me to talk about. These are thrilling times in which to live, and if you could pick a time and a place in all history, this would have to be both the time

continued on page 43 ►

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## TECH TALK

# WME: Not Bad for a First Try

by Judith Gross

**LOS ANGELES** Most exhibitors walked away from the first ever World Media Expo feeling they'd had a fairly good show, although serious questions remain about Los Angeles as a venue for future shows and about the remote locale of NAB Radio Show activities.

On the minus side was a lack of any special event designed to get attendees into the exhibit hall and the decaying condition of L.A.'s inner city.

"One of the positives was that

we, as vendors, only have to go to one fall show, which is both efficient and economical," noted Harris Allied's Dave Burns. "Having to go to four shows in the past was like trying to run a radio station with four staff members too many."

"The four-in-one approach helped because it was an added incentive for the major broadcast group executives to show up," agreed Tim Bealor, director of sales for Broadcast Electronics. The "kluge"—or at least a part of it, also seemed to work for companies concerned with both radio and

TV, such as LARCAN and LARCAN-TTC.

"It was much better than the

nies. "To be quite honest, we spoke to quite a number of TV people, and the combination of shows gave us a broader range of people to talk to."

Dan Braverman, president of Radio Systems, noted that the cross-industry categories of the

sionals.

But Braverman added that he wasn't sure that booth traffic drew anyone who would not ordinarily have gone to at least one of the four shows had they been held separately.

## Too much diversity?

And Eric Small, of Modulation Sciences, said he suspected the lumping together of such diverse interests may have confused some attendees.

"It was probably too diffuse for some attendees, who were confronted with booths which might have had nothing whatsoever to do with their interests," he said.

In other words, would a medium market station manager have been turned off by the mouse-centered Disney exhibit or an SBE member have felt sandbagged by AP's gigantic news booth or Killer Tracks music-centered promotion?

As far as the SBE was concerned, joining forces under a single umbrella was an improvement over the declining attendance at the SBE national convention over the past few years.

"We were elated," noted SBE President Chuck Kelly. "Our attendance was way up, about 30 percent more than the Miami Show. The synergy worked and it was a pleasure to be a part of such a professional effort."

Rick Dobson, outgoing Director of NAB Conventions, said the merged show concept "definitely worked as far as we are concerned" and he noted that the official attendance figure of 17,000 was a substantial increase from "even the largest of the four when it was held on its own."

## A long, long walk

Complaints about the show seemed to center mostly on the fact that the NAB deliberately kept Radio Show registration and sessions on the opposite side of the convention center from the other three organizations—and from the exhibit floor.

One convention-goer estimated the distance of the "long walk down the hallway" leading between the two sites to be around a quarter of a mile.

"The meeting rooms were too far away, so the radio attendees didn't always make their way to the exhibit hall," observed LDL's Wilson. "I'd like to see them closer and also see the organizers have more events to give attendees a reason to see the exhibit hall."

## Not necessarily a draw

Harris Allied's Burns agreed that the NAB needs to move the Radio Show activities closer to the exhibit hall, but said he had mixed feelings about events such as the "walk around lunch" or "production and program-

continued on page 42 ►

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# A Fairly Good Show...

► continued from page 40  
ming carnival" held in the exhibit hall in past years.

But not everyone agreed. "If they only come in for the free food or the event, then it's not going to help the exhibitors," Burns said.

Radio System's Braverman agreed. "Events like the lunch aren't really that practical. Maybe they come for the beer, but it doesn't help your booth if you aren't lucky enough to be next to the beer."

"Still others, like Broadcast Electronic's Bealor, said such activities really aren't necessary "If someone is interested in the equipment and services, they'll find their

way to the equipment. Browsers seem to be more important to the spring NAB show."

More crucial than distances and the lack of special events was the timing of the sessions, which conflicted with exhibit hall hours. "I'm championing the cause for two- or three-hour periods in the middle of the day with no conference sessions, since sessions always cut down on floor traffic," said Burns.

"It's always been an SBE policy to have time just for the exhibits," noted Kelly. "We did end our session early, so our members were definitely in the exhibit hall."

Location, timing, promotions—Dobson said the NAB would be sensitive to all the concerns of exhibitors. "We can put the radio sessions in a different part of the convention center next time, and we can schedule time

By far the most often-mentioned problem most convention-goers had was with the location of the Los Angeles Convention Center, in a section of the city that has become run-down and and rife with pan-handlers.

**On the plus side, L.A. is easy to get to from most parts of the country and it's the center for broadcast and film and video production.**

just for the exhibit hall with events like the walk-around lunch," Dobson said. "We'll hear the comments and take them into serious consideration."

"The convention facility is among the best ever, but the city of Los Angeles is among the worst—and downright dangerous," said Burns.

"The convention facility is nice enough but it's a rough part of town. There aren't a lot of hotels or restaurants nearby," said Bealor. "I would prefer that it didn't go to L.A. in two years. We're still evaluating whether we'd go back—another California city might be more appropriate."

"The city is quite expensive, going to and from the hotels was inconvenient and the run-down areas were rough. If this show were held in a different city in two years we would support the change," said Wilson.

On the plus side, Small noted that L.A. is easy to get to from most parts of the country and that it's the center for broadcast and film and video production.

Kelly argued that it's an "international city" which helped boost show attendance from other parts of the world. And though many felt that Los Angeles provided good access to west coast participants, many, agreed with Braverman's assessment that "we wouldn't necessarily be that happy going back and we'd support a different city."

The World Media Expo moves to New Orleans in 1995, but is slated to go back to L.A. in '96. But Dobson pointed out that that decision is not "etched in stone."

"Nothing is committed yet. The issues raised are important, but remember that Los Angeles is the largest radio and TV market in the U.S. and the center of post production and film," Dobson said.

"The Visitors and Convention Bureau of the city made a strong commitment to support this show and they outdid themselves in that regard. I feel we'll be going back to Los Angeles in two years unless a better location is discovered," he added.

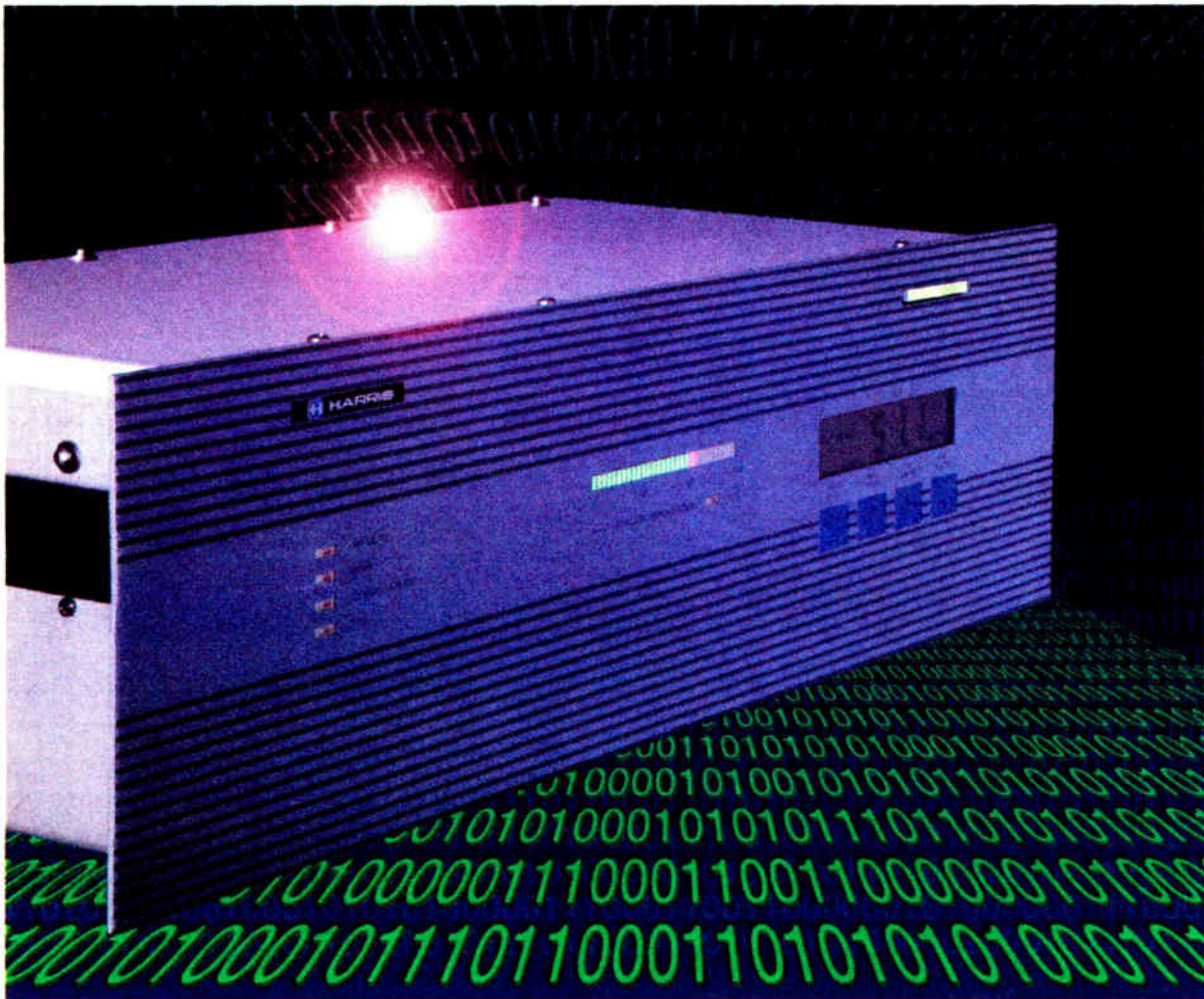
And, as Dobson and many exhibitors pointed out, it's hard to give a show of the size and diversity of the World Media Expo a quick, blanket evaluation.

"I heard complaints but they varied depending on who you were asking," said Dobson.

"There are plusses and minuses to all the considerations," observed Kelly. "For a show like this, there are advantages to having a venue as large as Los Angeles. It does have the problems of any big city, but if this show is held there in the future SBE will gladly be there."

□ □ □

Judith Gross runs her own public relations/writing company, JG Communications. She can be reached at 718-392-3288.



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World Radio History

PROMO POWER

# Radio Ranks Big as One of Santa's Helpers

by Mark Lapidus

**WASHINGTON** Think of the cast of characters you've got to work with here... very short people with magical powers and pointed ears... flying four-legged beasts known as reindeer... big jolly guy in a red suit... and they've probably already arrived in your town.

Even if you are promotionally asleep the rest of the year, do not miss this annual opportunity to do good, make money and pull in a few more listeners. And although it seems that the season starts earlier every year, it's not too late to shake the tree and pull out one of these many Christmas chestnuts of years gone by. Let's open the promotion stocking and see what sweet treats may be of interest to you...

**Jingle Bell Run** - The Arthritis Foundation does these in many cities around the U.S. Find out if they've got one going in your area. If they don't have a radio partner yet, or if they've never heard of the concept, you're in business.

Here's the deal: It's a regular 10K race except participants run with bells on their shoes and bright red Santa hats above their rosy cheeks. I say rosy because it's cold outside. Unless of course you're reading this article on the beach in a year-round warm climate, in which case have them run in bathing suits along with the hats & bells. (Perhaps this will give at least a few of them a different kind of rosy cheek).

Proceeds benefit the Arthritis Foundation (or group of your choice). The money angle is in selling a title sponsorship, registration locations, signage opportunities, the t-shirts and on-air promotional mentions. For extra fun, have a costume contest prior to the race. Note: If you do not affiliate

with the Arthritis Foundation, you may wish to use a different name for the race—it may own the rights to the "Jingle Bell Run" name in your state.

**Christmas Wish** - This is your chance to do something truly wonderful for kids that have nothing. Hook up with the agency that places children in local foster homes.

You're going to interview these kids to find out what presents they'd like for the holidays. This can be done on tape by your morning show if you want, promoted across the board in every day-part.

It sounds like this... "W\_\_\_ presents Christmas Wish.... We're talking with Jimmy Jones. Jimmy is five years old and lives in a foster home. Jimmy, if you could have two presents for Christmas this year what would you want?"

(Jimmy): "I'd really like a Power Rangers sweat suit and my first two wheel bike."

(Announcer): "If you can find it in your heart to give Jimmy one of these gifts this year, please call the W\_\_\_ Christmas Wish line now at 999-9999."

You then air the calls of the people calling in to grant the wish, thanking them for their generosity.

There are two methods of gift collection. Have listeners bring them by your station, or have them drop by a check or credit card number with the amount of the present and you buy it. It's nice to have a wrap-up party at a child-friendly restaurant where kids get to meet the folks that made the donation. Be sure and have lots of sweets, a Santa and games. Carefully work in a client this way... "W\_\_\_ Christmas Wish is presented in part with a grant from (Sponsor).

**Twelve Days of Christmas** - Each day give away a different (and hopefully larger) gift on-air. Have people register at a sponsor location and by phoning/faxing

the station. Announce a name at a selected time. You must be listening to win. The grand prize winner could win all twelve gifts. Ask clients to throw in the gifts with the schedule.

**Food Drive** - There are lots of ways to tackle this:

1) In many markets, the Boy Scouts collect food from Thanksgiving to the first week in December. Tie in with the largest grocery chain. The



Scouts drop off plastic collection bags at the door in your hottest ZIPs. One week later they come back and pick them up, taking all the food to a central location where you're doing a live broadcast.

A sponsor can go on the bag, on the air and in any print ad you develop. A week later you may wish to invite listeners down to the local food bank to sort the collected food so that it can then go to the shelves.

2) Have a DJ do an on-air marathon from inside a huge box in a mall or store or from a truck. The jock stays until the area is filled with food.

The first year you do this, have a back-up plan where you're able to bring in a lot of the food yourself. Tie in a newspaper or TV station for additional coverage.

3) At a series of blockbuster holiday movies create a "Canned Film Festival." Listeners pay a reduced amount to get in and drop off cans of food.

**The Christmas Diamond** - This only works in a cold climate where it eventually warms up. Have an ice sculptor build a

huge display with your call letters outside in a high traffic location. Freeze an expensive diamond in the middle of the sculpture. The person who can guess when that diamond hits the ground wins the diamond. You need:

- 1) Twenty-four hour security;
- 2) A heavy press push;
- 3) A diamond client with a lot of money and a good sense of humor.

**Phone Home** - This works best from a crowded mall. Have a long distance company give you time to allow people to call home. Limit the time of the calls.

**Cruisin' Christmas** - What do a lot of people do just prior to Christmas? Drive! Make it easy for them with a gift they'll remember for you... free gas, plus state road maps customized with your call letters. Both presents can be sponsored.

**Charge-It For Christmas** - On Christmas Day give away mass quantities of batteries on-air. Make sure the bunny will be busy today by giving kids what they need after they get the gift.

**Naughty & Nice** - Works best for blue morning shows. Using highly descriptive verbiage, the morning show gives away hard-core lingerie to callers who describe the nice things they've done that should entitle them to something naughty.

**Gloves For The Homeless** - Set up locations at clients where listeners can drop off old (but still useable) gloves. This can be also be done with coats.

**Trees Please** - Either give them away before Christmas or collect them for recycling after the holiday.

With a little planning, the promotion elves and Santa's goodies can bring your station plenty of Christmas cheer and success. Happy Holidays!

□ □ □

Mark Lapidus is director of marketing for Liberty Broadcasting.

## Best of the Harvey Story

► continued from page 39

and the place. Our country, for all of its debits, is still the only land in the world where everybody else wants in."

It will probably come as no surprise that the man whose signature close "Good Day" has become part of the American lexicon loves his work. Only Harvey doesn't call it work. He said "Angel (referring to his wife) keeps reminding me that I must be careful not to pontificate too much about the work ethic because probably I've never worked — if that (work) means doing something when you'd rather be doing something else, probably I've never worked a day in my life."

The man who has launched a few thousand pauses in his radio career ("ABC at one time threatened to save up all those pauses and sell spot announcements," he said, laughing) looks forward to more broadcasts and new projects, including a new program he wants to do on the radio. Through it all, he will remain true to his instincts. "I don't want to think in terms of everybody," he said. "I just want to keep thinking in terms of Aunt Betty."

Now, as Harvey says, you know the rest of the story.

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# The Art of Hiring a Sales Over-Achiever

by Mary Ruth Austin

**TAMPA, Fla.** Radio is booming. Sales are up. But is your station billing all it could? If not, are "pseudo-salespeople" posing as real salespeople to blame? Maybe.

stations who love to ask for the sale. The guys stealing his business are probably "Classic" radio sales personalities, also known as entrepreneurs, shown in figure 2. These men and women tend to be the best billers in the

tive, they play only to win, dress to impress and are real people persons.

Entrepreneurs aren't afraid of risk, hard work or asking for the order. They sacrifice to win, keep close score and, at any point in time, know exactly where they stand compared to others. Polished, enterprising and quick on their feet, they use their superior communications skills (column 3) to convince clients they have a need that can be solved only by advertising on your station.

But like all personality types, Entrepreneurs have some faults. Big picture people, they may ignore

because of his tall column 4, the problem solver is as analytical, practical and logical as the entrepreneur is outgoing and friendly. His taller column 6 means he prefers working at his pace to yours, is patient, persistent and very methodical in his approach to sales. He's the kind of salesperson who takes a "no" as a "maybe" and calls every third week until he gets the sale.

Some may view the quiet, reserved problem solver as unfriendly, too task-oriented, blunt or tough, although his method of asking questions, listening, assessing and solving clients' problems

Figure 1.

## Passive Charmer

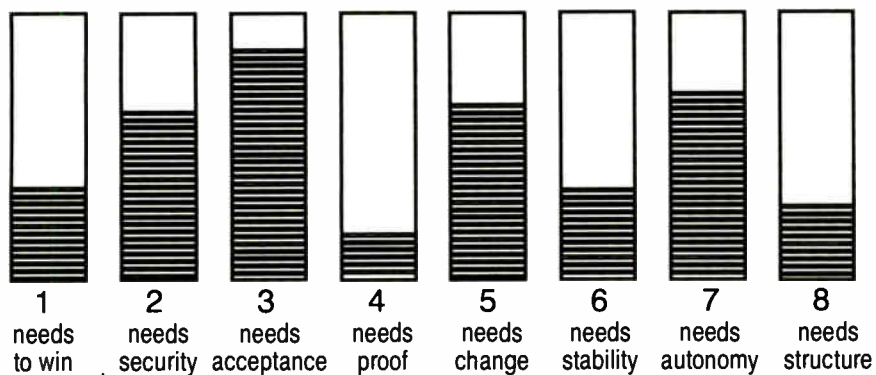
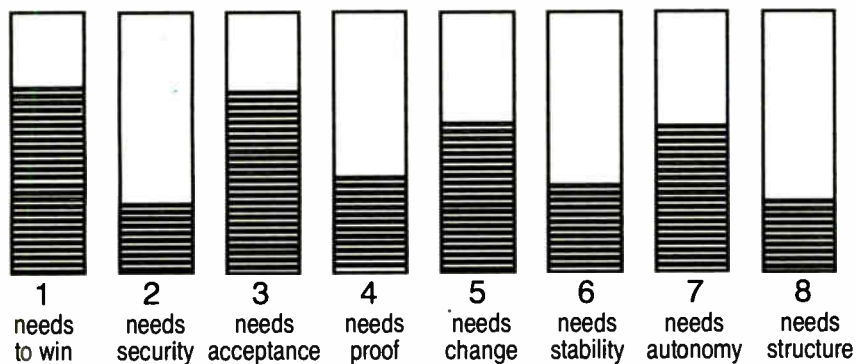


Figure 2.

## Entrepreneur "Classic" Radio Sales Personality



A third of all existing sales personnel in broadcast and other industries lack the need to win that defines true sales personalities.

### Faux salesperson

The most common "faux salesperson" on the job today is the "passive charmer," shown in figure 1. Poised, articulate, impatient, independent and impressive, he looks and sounds exactly like your best billers during the interview. Persuasive and a born self-promoter, he or she will convince you he can sell airtime to aliens by the time he leaves your office. But he can't, as you'll soon find out if you hire him.

Because he needs to be liked (tall column 3) more than he needs to win (shorter column 1), the passive charmer loves making calls and meeting new people but just can't bring himself to ask for the order. Customers might not like him if he tried to sell something. He'll take orders but won't ask for them because he takes "no's" as a personal affront. He'll have great, maybe even amusing explanations as to why he never makes the sale. The effect he'll have on the station's cash flow will be anything but funny.

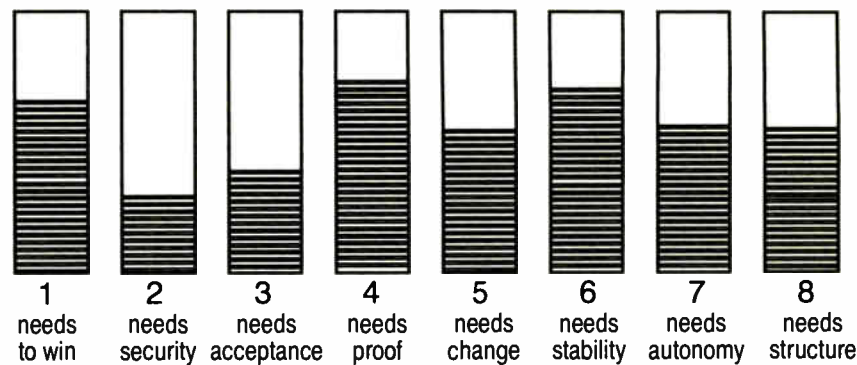
There are really only two ways to tell whether that glib, good-looking guy in your office is a passive charmer or a real salesperson—profile him before you hire him to measure his need to win or hire him and see if he can sell.

In rural or small markets, where his station is the only game in town, the passive charmer can survive as a "friendly order-taker." In tough, competitive markets, however, he'll get run over by real salespeople from other

biggest markets. They are aggressive (tall column 1), fast-paced (tall column 5), independent (tall column 7) networkers (tall column 3) who sell through persuasion and charm. Extremely competi-

Figure 3.

## The Problem Solver Sales Personality



details, put off paperwork, tend to talk more than they listen and frequently determine a customer's need before meeting him. Listening and problem solving sales training are critical if they are to develop their full sales potential.

### Problem solvers

The "problem solving sales personality," shown in figure 3, is the second sales personality frequently found in radio. Like the entrepreneur, the problem solver is driven by need to win (tall column 1). More fact-based than people-based

puts money in the bank.

The problem solver's best clients are probably bottom line individuals (controllers or cost-conscious small business owners) who want facts without a lot of hype. More comfortable presenting to an individual than a large group, a problem solver excels at selling to skeptical, price sensitive, first-time advertisers.

For radio, the entrepreneur is slightly preferable, although every station needs at least one problem solver to sell to first time advertisers and other analyticals.

continued on page 48 ►

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# STATION SERVICES

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## Revolution Radio Up for Barter

**MINNEAPOLIS** The National Alternative Network is offering Revolution Radio to commercial stations for barter.

The weekly one-hour program delivers exclusive live, in-studio and unreleased music along with top artists and special entertainment features.

For more information call Morgan Church or John Kuehne in Minnesota at 612-338-2211; or circle **Reader Service 31**.

## Oldies Christmas Packages

**BEVERLY HILLS, Calif.** Charles Michelson's drama/comedy half-hour 1994 Christmas special package is off on the fast track at New York station WABC, Los Angeles station KNX, Chicago station WBBM and stations in eleven other markets.

The dozen half-hour programs include "The Jack Benny Christmas Special," the "Burns and Allen Christmas Show," the "Dragnet Holiday Show" and other shows from days-gone-by. Many listeners will be hearing this programming for the first time while their elders will sit back and reminisce about yesteryear.

For more information call Charles Michelson in California at 800-648-4546; fax: 310-278-7932; or circle **Reader Service 53**.

## Talk Show Available

**FRESNO, Calif.** The Robert Thomas Group recently announced its national distribution of two daily five-minute shows, now available to News/Talk radio stations.

The first show, "A Fresh Look at Life in the '90s," is targeted toward adults ages 35-49.

The host is Randy McKai, who will discuss everything from the gas bill to Hillary and Bill. McKai also did "From Politics to Power Rangers."

The second show is "What's Cookin," hosted by Chef Ron. Along with cooking tips the program will discuss food origins, food history and food legends.

A season print ready and camera ready recipe book will be provided to affiliate stations at no extra charge, so they can gain additional revenue.

For more information call Kevin Thomas in California at 209-221-9190; or circle **Reader Service 20**.

## Surgeon's Health Report Offered to Stations

**HOUSTON** Dr. "Red" Duke's health report is now being offered to radio stations across the country in five weekly 40-second radio spots.

Since 1982, Duke, a renowned trauma Surgeon and professor of surgery at the University of Texas' Houston medical

school, has translated complex medical terminology into easy to understand language for television viewers.

For more information call Mark Carlton in Texas at 713-792-4633; fax 713-792-2984; or circle **Reader Service 62**.

## Focus on the Family

**COLORADO SPRINGS, Colo.**

Focus on the Family is offering 90-second programs designed to help adults create healthy relationships within their homes and cope with the challenges of life.

Noted author and psychologist Dr. James Dobson draws upon his own personal and professional experience to provide listeners with insightful messages.

For more information call Bob Dobbs in Colorado at 719-531-4501; fax: 719-548-4503; or circle **Reader Service 143**.

## Radio America Offers News Shows

**WASHINGTON** Radio America is offering two 29-minute news programs dealing with current events.

The first program, "What's the Story," is hosted by Fred Barnes of the New Republic and McLaughlin Group. The show critiques the media's handling of each week's top news stories.

The second program is "North American Forum," which looks at current events from a North American perspective. The host is Stefan Halper, who is joined by journalists from the U.S., Canada and Mexico.

For more information call Nicole Weber at 202-408-0944; fax 202-408-1087; or circle **Reader Service 92**.

## Sound and Stations Launches Alternative/College Show

**IRVING, Texas** Sound and Stations USA recently announced the signing of a marketing agreement with Collegiate Advantage Inc. to syndicate the college version of the "European Hit Survey."

The new show, already dubbed the "European New Music Survey," will be a one-hour show featuring current, alternative European music. It will deliver new releases before they hit the U.S. and will feature artist interviews.

For more information call Glen Gutmacher at 800-783-4237 ext 314; or circle **Reader Service 105**.

## New Winning Edge Products

**RICHMOND, Va.** Winning Edge Production and Software recently announced three new radio software publications that can be ordered or downloaded on a PC.

The first, "Mining the Internet for Radio" by Corey Deitz, is an electronic book that shows how to inexpensively log on Internet and retrieve a growing list of free show prep material.

The second "Cyberjock, E-mail for Radio" contains the e-mail addresses of broadcasters and other professionals involved with the broadcast industry.

Winning Edge also announced a free weekly newsletter titled "Radio 2000,"

which discusses how computing relates to radio. It is now available through e-mail.

For more information call 804-227-3390; or circle **Radio Service 136**.

## American Urban Announces NAACP Initiatives

**NEW YORK** In an effort to raise awareness of the NAACP's goals and missions, American Urban Radio Network recently announced a series of initiatives, which includes PSAs and the airing of the NAACP's 7th Annual Radiothon.

The PSAs began Nov. 7 and feature 30-second announcements ranging from voting rights to economic empowerment. The theme of the PSAs is "Imagine an America Without the NAACP."

The Radiothon is designed to increase the organization's membership. The radiothon will be held April 22 of next year and will consist of three hours of information and entertainment. It is expected to air on 100 radio stations across the nation.

For more information call C. Ottley at 212-486-4255; fax 212-714-1563; or circle **Reader Service 201**.

## New Generation X Programming

**SEATTLE** Broadcast Programming recently announced the release of Radio X, a new rock-alternative format aimed at "Generation X," whose age range between 18 and 29.

Radio X is designed and programmed by consultants Ed Shane and Cheryl Broz of Shane Media Services in Houston.

For more information call Keith Chambers at 800-426-9082; or circle **Reader Service 169**.

## New NFL Radio Contest

**DURHAM, N.C.** In an effort to promote Fox NFL games and SkyBox NFL cards, Fox Sports recently selected SkyBox International as the official trading card for the network's national winter radio promotion, which is scheduled for Nov. 29 through Dec. 12.

Almost 200 radio stations located in all 50 states will conduct the listen and win contest titled "Sounds of a Football Game."

Listeners correctly answering trivia questions will win a prize including Fox NFL merchandise and SkyBox NFL trading cards.

For information call Doug Drotman at 212-307-5300; fax: 212-582-8655; or circle **Reader Service 111**.

## New 'At-Work' Format Released

**WARWICK, R.I.** Identity programming last month released "A Touch of Class," a format mix of light jazz and romantic vocals.

The programming is geared towards "at-work" listeners ages 25 to 45, disenfranchised with other adult radio formats.

For more information call Gary Begin at 401-461-6767; or circle **Reader Service 71**.

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4. Comes with a "NO CONSOLE" sticker to post on your windshield when doing remotes in bad neighborhoods.
3. Features phony "13th fader" so your program director can think that he's adjusting levels.
2. If he sells enough consoles, Dan can afford to get married and settle down (he's not getting younger you know).
1. DNA tests confirm that no RS-Series console was anywhere near the Nicole Simpson murder scene.

\* Actually, there are hundreds of other technical and performance reasons why RS-Series consoles are right for your station. Call today to learn why Radio Systems consoles are your best broadcast value.

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World Radio History

## MANAGERS NOTEBOOK

# Management Styles Should Allow for Change

by Sue Jones

**BURKE, Va.** Today's radio listeners are different from the listeners of five or 10 years ago. The same audience last year does not have the same focus or mindset that it had last year.

Last year's bombshell promotion may be this year's milk and toast. A new format or promotion idea that takes off in one market may not even register in another.

To illustrate my point, think of the "personalities" of New York City, Washington, Chicago and Los Angeles. These major markets all have flavors of their own with multiple demographic layers. A market can drastically change its focus as the result of a natural disaster. San Francisco and Miami come to mind as recent examples.

To stay on top of your market and maintain top ratings, you must have a management strategy that supports the changeable and often fickle target audience.

## Develop a strategy

How is such a strategy developed? Start with asking these questions: Who is the target listener? Why does he or she listen? What value does your station provide to the target listener? What are the successful stations in your area doing that your station does not do? What are the three most successful things that your station is currently doing?

You may need to rethink how you manage your station to improve your ratings or turn them around. Instead of saying: We know the customer likes this music or talk show, change your thinking to: "We should ask the listener what he or she likes." You might be surprised at the answers that you get.

Tom Peters demonstrates this point in his book, "In Search of Excellence," with a failure story. He tells the story of a company that spent thousands of dollars on the development of a new dog food product. Vast amounts of money, time and energy were spent on getting the marketing message and packaging just right. The product was introduced with a multimedia marketing campaign, but the product sat on the shelves and was a dismal failure.

Someone finally asked the question: "Did the dogs like it?" The obvious answer was *no*. The marketing efforts may have been stellar but the product was not desirable to the end user (customer).

Successful management strategy today is customer driven. The old business practice of a station driven by profits and organized by hierarchy is inflexible and will not be

as successful as the new responsive customer-driven management style. What is profitable today may not be profitable tomorrow because your listeners have changed.

## Understand the differences

To understand the difference in the two types of management strategies, consider the contrasts between them in the following chart.

Figure 1.

Old Management Style	versus	New Management Style
Vertical	<i>Organization</i>	Horizontal
Autocratic	<i>Leadership</i>	Cooperative
Profits	<i>Focus</i>	Customers
Money	<i>Resources</i>	Information
Cost	<i>Advantages</i>	Time
Homogenous	<i>Work Force</i>	Diverse
Security	<i>Worker Expectations</i>	Personal Growth
By individuals	<i>Work</i>	By teams
Imposed	<i>Quality</i>	Personal

The focus of the new management strategy is not how much money the station is making but on how well you are meeting your listener's requirements. Listener satisfaction determines financial success. Because the listeners' needs and requirements can change rapidly, you must be continually monitoring your target listeners. In order to out-manuever the competition, convert your management approach to creating and delivering the best value to your listeners, not maximizing the profits. Profits will follow if your focus is on the listener.

If your listener moves away from your currently profitable approach, your profits will decline. However, if you stay with your listener's needs, your profits and ratings will remain high.

## Build a consensus

Management must also design and continuously promote and improve consensus thinking across departments integrating functions such as engineering, programming, sales and business operations to encourage teamwork. The key concepts to the new flexible management style are listener satisfaction, consensus thinking, department integration and teamwork. To take advantage of this new approach, you must have a good grasp of your station's organization and market.

You cannot take a haphazard approach to knowing your listeners. You must refocus your department managers' thinking toward the listener and organize your whole staff to work as a team instead of a group of departments working for the same station.

Focus on systems thinking. In a competitive market, you cannot hope to survive in a system that is out of control. You are out of control if you do not:

- ✓ Know exactly what your listeners want
- ✓ Have a well-defined process for translating those requirements into internal actions
- ✓ Align all of your tasks and processes along common goals and objectives
- ✓ Use key measures to manage by fact
- ✓ Involve everyone in continuous improvement
- ✓ Seek ways to be faster and more flexible throughout the station
- ✓ Promote prevention rather than reaction
- ✓ Give everyone in the station the business goals so they will become shared goals
- ✓ Look for opportunities to form partnerships with clients, suppliers and listeners
- ✓ Value results
- ✓ Satisfy your listeners

## A new philosophy

Skilled general managers are embracing the new management philosophy because it makes them and their stations more effective. Profits depend on how well a station does in three areas: Strategy development, market performance and internal performance. The new management style strengthens a station in three ways:

1. It contributes to more efficient strategies and better business decisions and helps stations respond to a changing audience.
2. It increases listener retention, market share and revenues, which improves performance in the marketplace.
3. It improves productivity and lowers operating costs, which improves internal performance.

Shifting your thinking away from the bottom line is not easy and you may be reluctant to do so. Pursuing listener satisfaction management will not be at the expense of profits. The difference in the two management styles is profits will improve as listener satisfaction improves.

□ □ □

Sue Jones is a senior manager for Computer Data Systems Inc. in Rockville, Md. She can be reached at 703-323-0491.

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# Hire a Sales Achiever

► continued from page 45

Where do you find real salespeople like entrepreneurs or problem solvers? Stealing your competitor's top billers is not always the best solution because they could cost you more than they're worth or demand a management position they can't handle—they're too aggressive or impatient to coach or develop others.

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Look everywhere—many real sales people are stuck in dead end jobs. Anybody in any industry who is competitive, assertive and dissatisfied with their current growth or earnings potential could have real sales ability.

And remember, no matter how good they look or sound during the interview, the need to win and willingness to do what it takes to make it happen is what separates sales superstars from washouts.

You probably don't want them if they're not already thinking they'd really like your job some day.

□ □ □

Mary Ruth Austin is the marketing and communications manager for The Omnia Group Inc., an employee selection and management consulting firm with an international base of 7,500 clients. Austin began her career in radio as a morning news anchor and staff reporter for WTAN(AM)-WOKF-FM Clearwater, Fla. She served as news director at Colgate University's WRCU-FM and has served as news, public service and public affairs director for WYNF-FM and news director at WUSF-FM.

The Omnia Group will provide a complimentary profile and interpretation to RW readers who call 1-800-525-7117 and request one.

For more information on the Omnia Group.



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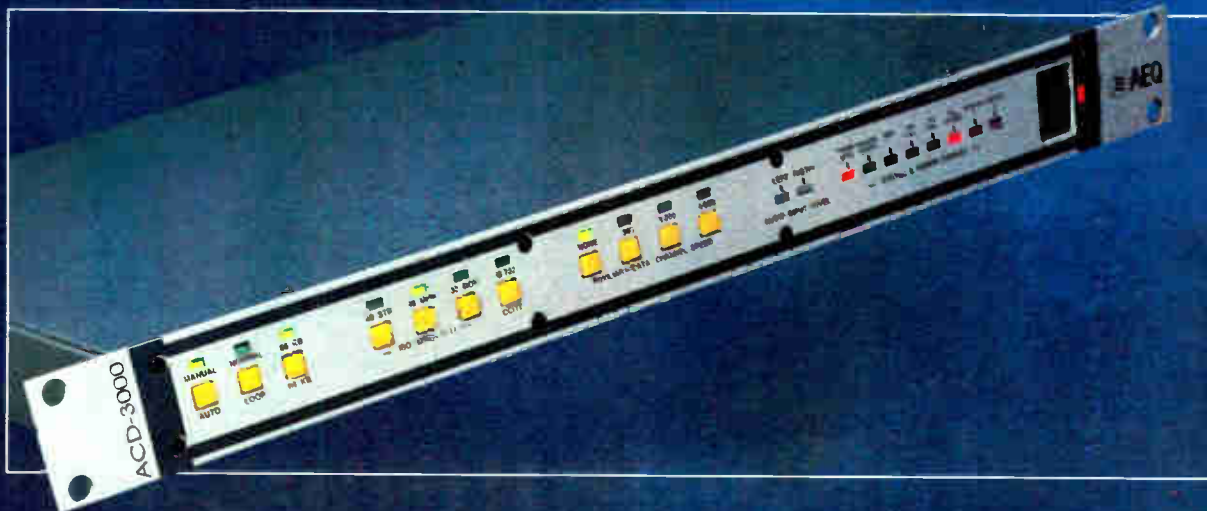
- ▶ Audio coding and decoding in conformity with ISO/MPEG Layer II.
- ▶ Versions for DTMF or Continuous Data Channel telecommand.
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- ▶ Language selection.
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- ▶ Selectable file sort criteria.
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- ▶ Audio file management and editor.
- ▶ Manual and automatic play lists.
- ▶ Multiple templates with up to 24 simultaneous immediate access keys.
- ▶ Printable transmitted advertisement log lists.
- ▶ All work station associated to the System are multitask, enabling the management of the transmission, recording, play list and template edition and automatic transmission from any of these.
- ▶ The System can be expanded from a single basic configuration, incorporating more work stations.
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- ▶ The ACD-3.000 offers the flexibility of user defined operating modes. The selection is made on the front panel keyboard, and is fully indicated by LEDs, as well as the communication status and alarms.
- ▶ 24 STEREO, 48 MONO, 32 MONO and G.722 modes are available.

### Features:

- ▶ Input / output bit rate selectable at 56 or 64 Kbits, with any of the operating modes.
- ▶ Manual and automatic synchronization. Last synchro. configuration is stored in memory, for a fast resynchronization, in the event of a power failure.
- ▶ Auxiliary Data Channel available when the ISO/MPEG Layer II algorithm is selected.
- ▶ LOOP and TEST modes available.
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### Specifications:

- ▶ Two analog inputs (transformer coupled).
- ▶ Two analog outputs (transformer coupled).
- ▶ Digital interfaces V.35 and X.21 / RS-422.
- ▶ RS-232 interface for Auxiliary Data Channel.
- ▶ 16 bits Sigma-Delta A/D and D/A converters.



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# MARKETPLACE

## Recently Introduced Products for the Radio Broadcast Professional

### Eight-I/O ISDN Interface

The Q-Box rack-mounted stereo ISDN interface from **Audionics** enables a user to remotely switch one of eight cue sources to the codec. The Q-Box also acts as an eight-input, electronically balanced distribution amplifier for incoming ISDN audio.

Its features include cue switching by DTMF signals on the incoming ISDN audio circuit; ISDN line distribution; DC switching for each cue input; and simultaneous monitoring through a front panel, fixed gain, headphone socket of one channel of the incoming and outgoing audio signals.

For information, contact **Phil Davies or Phil Myers in England at 44-1742-422-333; fax: 44-1742-433-913; or circle Reader Service 160.**



### Easy CD Automation

The Power-Seg from **Indy Audio** is a Sony CDP-C910 10-disc changer with an added interface board that reads and decodes the index 3 EOM commands, boosts audio levels to balanced pro-level outputs, allows you to program up to 194 CDs in non-volatile memory and pro-



vides a 25 dB output connector that is pin compatible with Otari ARS-1000 cables.

Added proprietary microprocessor circuitry allows the Sony 10-disc changer to interface with almost any automation system no matter how old it is.

Power-Seg features active balanced

outputs, end-of-magazine alarm output, random, delete and continuous play programming options and instant connection to most automation systems.

For information, contact **Mike Rabey in Indiana at 317-848-3486; or circle Reader Service 118.**

### Custom Interface Box

A new eight-channel data transfer interface box and format converter from **Jiri Donovsky** connects Alesis ADAT digital eight-track recorders with a variety of other production gear.

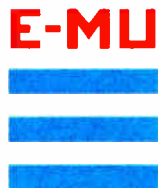
It interfaces the ADAT with Sony, Otari and Mitsubishi digital recorders and with eight channels of Yamaha DMC 1000 and DMP 7D digital mixers.

For information, contact **Jiri Donovsky in California at 213-960-9472; fax: 213-461-7391; or circle Reader Service 104.**

### Flexible Digital Sampler

The new ESI-32 32-voice digital sampling instrument from **E-mu Systems** offers professional quality, functionality and audio resolution at an entry-level price.

ESI-32 features up to 32MB of RAM single in-line memory modules; compatibility with Emulator IIIx, Emar II and Akai S1000/S1100 sound libraries; two channels of 128-times oversampling sigma-delta A-to-D conversion; 32 four-pole digital reso-



nant filters; time compression/expansion; and virtually distortionless pitch transposition over a 10 octave range.

It also features expandability via a number of upgrade options including alternative internal 3.5-inch Syquest removable media

drive, RAM memory and the inclusion of a SCSI 50-pin port and S/PDIF digital I/O.

For information, contact **Robert Faulkner in California at 408-438-1921; fax: 408-438-8612; or circle Reader Service 190.**

### Real-Time Adaptive Digital Equalizer

The REAL-Q real-time adaptive digital equalizer from **Sabine** monitors program material during a performance and maintains any specified equalization curve. Engineers can choose exactly what portion of frequency spectrum is controlled by the REAL-Q and what portion is manually controlled.

It offers a full-featured real-time analyzer; pink and white noise generators; memory locations to store EQ settings; and a 31-band digital master EQ and 31-band digital correction EQ that can be superimposed on an LCD display. The interface is designed for easy access to and control of all functions and includes dedicated menu selection keys, cursor movement keys, a data wheel and a dedicated "Help" button.



The REAL-Q offers digital audio interface for input and output of all digital formats, and the unit is capable of processing an analog and digital input simultaneously.

For information, contact **Sabine in Florida at 904-371-3829; fax: 904-371-7441; or circle Reader Service 74.**

### Q10 Software Upgrade

**K.S. Waves Ltd.** released version 1.1 of its Q10 parametric equalizer software. Q10 is a 10-band, two-channel fully parametric equalizer developed to enhance Digidesign Sound Designer II software.

New features of the software include

select-and-drag editing, direct keyboard entry and control of all parameters. Left and right channels have been color graphed for quick reference. Also new is IDR—increased digital resolution—a proprietary process that combines noise-shaping and dithering to improve resolution of the digital signal.

Version 1.1 also contains an extensive equalization setup library with presets optimized for specific applications, including



multimedia, mastering and post production.

For information, contact **David Ball or Gilad Kerin in Tennessee at 615-588-9307; fax: 615-588-9472; or circle Reader Service 166.**

### High-Speed Networking

MediaNet from **Sonic Solutions**, a high-speed network for multimedia applications, is based on the 100MB FDDI standard and is implemented at NuBus circuit cards for use on Apple Macintosh computers.

Designed specifically for use with digital audio and other multimedia files, MediaNet includes Sonic Solutions' Media Optimized File Systems (MOFS). MOFS is optimized for high-speed retrieval of multimedia data with special media-oriented transaction protocols.

The end result is a network capable of



### SONIC SOLUTIONS

handling more than 80 channels of CD-quality digital audio.

A MediaNet 1.4 for UNIX is scheduled for release this fall.

For information, contact **Tom Bennett in California at 415-485-4800; fax: 415-485-4877; or circle Reader Service 121.**

### Keep Cool with Instant Shelter

**International E-Z UP** offers a line of "instant shelters" that set up in less than 60 seconds, no assembly, tools or ropes required. E-Z UP instant shelters help broadcasters keep cool at remotes, off-air events, promotions and other outdoor events that require attention-grabbing call letters and station colors.



E-Z UP instant shelters are available with a reproduced silk screen of the station logo and come in many different colors. Also available are sidewalls, rail skirts and bug screens to lend extra protection or to transform a simple E-Z UP into an intriguing display.

For information, contact **E-Z UP in California at 909-466-833; fax: 909-944-2884; or circle Reader Service 35.**

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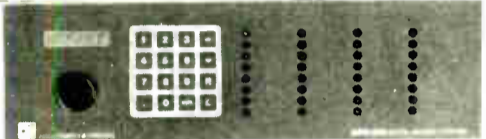
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**READER SERVICE NO. 199**

# Japanese Resistant to Syndication

by Robert Zix

**OSAKA, Japan** It is as difficult to make sweeping generalizations about radio in Japan as it is anywhere, except to say that talk radio is more often on AM and music is on FM, which runs from 76 to 90 MHz. That, however, is where the similarity between radio in Japan and much of the rest of the world ends.

Although many stations have an overall theme such as pop or classical, few stations in Japan have a set format. Most stations are block programmed and each program has its own format, producer, director, engineer, talent and assistants. It is rare for a DJ to self-operate the console.

Each programming block or show is usually sub-contracted by the station to various production companies. The director reports to the producer who is the only member of the chain directly employed by the radio station. In essence, each show operates almost as an individual radio station might.

Each show director picks the music for the show and provides the talent with a daily playlist, often hand-written. The talent may or may not have a say in music selection. There are few restrictions on the director, except for songs or artists that do not fit the station format or image. For example, a particular song or artist may be too "teeny-bop" for some stations.

A wide variety of programming is broadcast in Japan, running the gamut from sports and talk shows to just about every genre of music.

As in most countries, AM radio is the domain of talk-oriented programming. Music on AM stations is usually aimed at either a more senior audience or at children. Also, AM stations frequently feature local artists that have a more traditional domestic appeal.

Most AM stations are now stereo, and AM Stereo add to the appeal of broadcast sporting events. Much care is taken to

place microphones to achieve the for maximum stereo effect.

As in every culture, there are a variety of music formats in Japan—pop, standards, oldies, teenybop, rock, metal, alternative, NAC, soul, jazz, reggae, classical, enka, etc.—and each has its following.

A few years ago there was a foreign music boom in Japan. World music was the rage and listeners could not get enough of their favorite tunes from other countries. Now, perhaps as a backlash to the bursting economic bubble, the trend is toward domestic music, commonly called "J-Pops."

A few months ago, the more popular FM commercial radio stations featured mostly foreign music with maybe one or two Japanese songs per hour. Now, the stations play up to 50 percent domestic material.

Helping to drive this trend is karaoke. Karaoke continues to be one of the most popular nighttime activities among Japanese people of almost all ages. Karaoke bars and parlors are socially approved gathering places where people go to unwind, have a few drinks, bond and belt out their favorite songs.

The stations playing music that people like, and can sing along with to practice for their nightly karaoke outings, win the ratings: It is as simple as that. The popularity of J-Pops probably owes much to the fact that it is easier to learn a song in your own language than in a foreign tongue.

Another reason for the increased popularity of J-Pops is quite simple: It is good music. Although there is as much drivel and teeny-bop pablum here as anywhere, there also are some significant musicians worthy of international recognition and air-



play. Quite frankly, it is a mystery to me why so much good music has not gotten beyond the Nippon archipelago.

Also contributing to the popularity of J-Pops is the long-established practice of advertising agencies connecting products with soon-to-be-released songs. Previously, the hit song was often for-

ign, but now it more fashionable for these to be domestic. Part of the song is played in the part of TV spot for the product.

Virtually every programming syndication resource available to broadcasters elsewhere is available in Japan. Unfortunately, not much of it translates well, excepting jingles and some production elements. Few listeners in Japan understand English, or any other foreign language for that matter. Therefore, even the most poignant information is incomprehensible to the average listeners.

Stations do, however, make use of some syndicated programs, like Rick Dees Weekly Top 40 and Quiet Storm, but the trend is away from syndicated programs in favor of locally produced shows. Stations use locally produced shows to heighten their station personality and individuality. In a nation where "me-too" is the rule rather than the exception, this is not as easy as it may sound.

If you are considering producing a show for airplay in Japan, it is important to know the local music. Few syndicated programs produced outside of Japan include any Japanese language or music. In fact, not many foreigners can pronounce Japanese artists names, much less the song titles, even if they are written in Roman alphabet characters.

When it comes to creating foreign-language programs for Japanese radio, forget content and go for style. It does not matter as much what you say as how you say it and the feeling or atmosphere created by the words. Most young listeners understand key English phrases and can usually pick out the names of artists or groups, but everything else is just window dressing.

□ □ □

Robert Zix is president of Nickong Ent. Inc. based in Hawaii. He also is on-air as Kamasami Kong at FM802 in Osaka, Japan, and is a consultant to ICRT Radio in Taipei, Taiwan. He has been active in the Pacific region since 1971, having worked at stations in Korea, Japan, Hawaii, and Taiwan. Contact him via e-mail at CompuServe 75022.2175.

## Japan Radio Management Differs

**OSAKA, Japan** Differences in the way Japanese radio stations operate extend beyond just programming. From attitudes toward automation to the way advertising time is sold, radio here operates differently than in other parts of the world.

In Japan, there are only a handful of stations and radio is a fairly limited industry. If stations here operated "lean and mean" with labor saving devices like automation and/or computers for selecting music, a lot of people would be out of work. The line of thought is that a computer with programming capabilities puts a director out of work and a system capable of even semi-automation puts an engineer out of work. In essence, it is all about jobs.

Although it is easy to spot flaws in this logic, it must be considered that most decisions are made by senior managers who do not have much familiarity with computers and especially not with programming software that is written primarily in English.

In fact, there is little, if any, use of music programming software in Japan. Radio Computing Services (RCS), however, has undertaken the monumental task of translating its Selector program into Japanese. This is no easy task considering the size of the program and its instruction book. To add further difficulty to the RCS task, there are four basic types of written characters in Japan—Hiragana, Katakana, Kanji and Romaji—all of which appear on any typical Japanese CD.

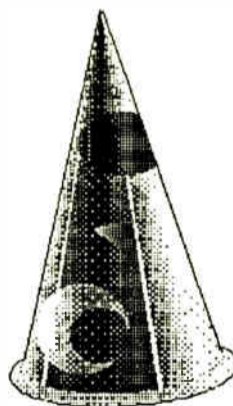
Also different in Japan is the way the sales department works. Selling spots is a new trend in Japan. On stations that do sell advertising spot time, it is usually sold in 20 seconds segments, not the more common 30 or 60 seconds sold in elsewhere.

Most programs have one sponsor that underwrites the entire program. Programs run from 15 to 30 minutes up to about three hours. And tobacco and alcohol advertising is permitted.

—Robert Zix

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World Radio History

PRODUCT EVALUATION

# Telos One Underpins Documentary

by Frank Beacham

**NEW YORK** In preparing to produce a recent radio documentary, I faced a precarious technical situation loaded with risk. How could I record consistently high-quality telephone interviews at varying locations in the field without engineering support?

The documentary for a public radio program about the history of Carolina beach music and the dance, "the shag," was to be recorded on portable DAT equipment mostly in night clubs and dance halls along the Carolina coast.

**Pursuing quality**

But several of the key subjects I was going to interview lived in small towns throughout the South, and traveling to each of them would not be economically feasible. Telephone interviews were the only answer.

My previous experience with recording

telephone sound has been dicey. Using the direct phone line/tape recorder connectors found at Radio Shack to record an interview is a crap-shoot. More often than not, the condition of the phone line leaves

shows using digital hybrids.

But do digital hybrids work in the field, and are they simple enough to use on a wide range of phone lines without engineering support? To find out, I placed a few



Good in the field—the modem-sized Telos One

one with a distorted audio soup that doesn't cut it for broadcast purposes. The only places I knew that got consistently good telephone audio quality were talk

on-line queries and got back the same answer from several sources.

"Telos...call Telos," the e-mail messages said. "Check out the Telos One."

**More than one**

The Telos One fit the bill for what I needed. Actually, there are three Telos One models. There's a dual hybrid rack mount version and a single hybrid version available in either rack mount or a compact modem case. For portable use, I wanted the modem size. It could easily be mistaken for a computer modem; it's about 1.5 inches high, 7.2 inches wide and 9.5 inches deep and uses a "wall wart" for power.

After receiving the Telos One I found that it had features I didn't even know that I needed and some capabilities for field recording that simplified the whole process. The well-written manual helped me configure the device for my application.

In addition to a standard modular phone jack loop-through, the Telos One has three XLR connectors on the rear. One connector, an input, is for a microphone (or mixing console carrying a feed of the interviewer's voice.) Another is an output carrying only the caller's voice, and the third connector is a switchable output with a choice of a mix of the interviewer and caller's voice or the caller alone.

To have redundancy for my phone interviews, I used two tape recorders with the Telos One. To one recorder, I fed the main output and recorded only the voice of the

**Product Capsule: Telos One Portable Phone Hybrid**

<p><b>Thumbs Up</b></p> <ul style="list-style-type: none"> <li>✓ excellent audio</li> <li>✓ user friendly</li> <li>✓ highly portable</li> <li>✓ excellent customer support</li> <li>✓ readable manual</li> <li>✓ reasonably priced</li> </ul>	<p><b>Thumbs Down</b></p> <ul style="list-style-type: none"> <li>✓ needs level adjustment for dynamic mics</li> </ul>
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For more information, circle **Reader Service 211** or contact Telos at 216-241-7225.

## Pike & Fischer FCC Rules Easy to Access on CD-ROM

by Alan Haber

**WASHINGTON** If uncharted waters were as easy to navigate as Pike & Fischer's Communications Regulation on CD-ROM, we'd all be skippers sailing the high seas.

Simply put, this handy multimedia compendium of Federal Communications Commission (FCC) rules, Notices of Proposed Rulemaking and Inquiry issued by the FCC, and United States statutes can be every station management's safety net in case of an emergency; it can also be a highly useful resource if you're just curious about a particular rule or statute.

**What you need**

Multimedia computer-enabled radio stations will rejoice as they slip this silvery disk into the CD-ROM drive in their Microsoft Windows-based computer (if your station isn't riding on the multimedia bandwagon, this could be your reason to invest in this technology).

Pike & Fischer suggests that you have at least a 386-level computer with two megabytes of RAM (four megs is suggested for top performance), at least 1.3 megabytes of free space on your hard drive, a monitor able to display graphics, and a mouse.

No more lugging multiple paper volumes off the shelf—everything you'd need to consult is on this extraordinary product, which is shipped with printed FM (and TV) engineering charts. (Pike & Fischer supplies a DOS version on the CD-ROM disk, in addition to the Windows version; floppy disk editions of Broadcast Rules on Disk, in both Windows and DOS formats, are also available).

Communications Regulation on CD-ROM never goes out of date—subscribers receive a new disk every month, up-to-date as of the last day of the month before the disk is issued (the September 1994 disk was reviewed). And, to make identification of the latest version easy for station personnel, this date is printed on the disk itself and is featured on each "infobase's" opening screen.

Access to information is quick and easy. The screen layout is extremely user-friendly; even first-time users will be able to poke their way around with little or no missteps (a tutorial is accessible, for those who need it).

**Breezy installation**

Installing the disk is a breeze: simply run the installation program and you're good to go. A Pike & Fischer program group is automatically set up for you on your Windows desktop; double-clicking on the group's icon reveals separate icons for the NPRM, Rules and Statutes infobases. Double click on the infobase you want to access, and you're quickly transported there. Infobases are set up to be accessed by double-clicking the mouse on the red hypertext links visible at the top of them. However, a bug in version 3.01 of the Folio PreVIEWS read-only interface (see below) made this impossible (after a Pike & Fischer representative worked with me over the phone to edit the LNAME.INI file, the interface created in my Windows directory, this feature performed flawlessly). You can also click on the "Open" button on the screen.

Say you've chosen Rules. You're greeted with the Table of Contents screen for this infobase, from which you can link to particular pieces of information thanks to the lightning-fast hypertext engine. The first part of the Table of Contents tells you what's new in Rules on the disk.

I saw that section 0.91, Functions of the Bureau, had been revised, and I wanted to view the revision. I simply double-clicked on the entry in the Table of Contents (hypertext links are in red), and it was instantly displayed on the screen.

The meat and potatoes of the program is its query feature (Communications Regulation

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caller. To the second recorder, I sent the mixed output. This gave me a back-up tape as well as a "clean" copy of the caller's voice for editing purposes.

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# Music, Community Win Big for KSPI

by Harry Heath

**STILLWATER, Okla.** Nostalgia is paying off here in red dirt country, where memory music headlined by "The Old Professor" is capturing listeners for KSPI(AM).

The "prof" is not a reincarnation of Kay Kyser and his Kollege of Musical Knowledge, but there's no doubt that his listeners dig the big band music of the Kyser era.

KSPI's "Old Professor" is just that. He's Dr. Carl Anderson, a 60-year-old professor emeritus at Oklahoma State University, whose "Memory Music Club" show is anything but stuffy despite his former work as a dean's assistant and his teaching and writing in such fields as school business and finance, organizational theory and personnel administration.

## Immersed in the stuff

The reasons for his on-air success are simple: 1) he started playing trumpet in the fourth grade, when Harry James was at his peak; 2) he holds a music degree from the University of Kansas and taught music in the Kansas City school system; and 3) his combo, "Men of Note," is one of today's most popular dance units in north central Oklahoma.

Dr. Carl has been involved in the music industry in one way or another since 1948. He first appeared on stage with the Kansas City Rhythm Kids, then organized and fronted his own dance bands.

He has composed and arranged music, played both drums and trumpet in dance bands and was a member of the Kansas City Philharmonic Pops orchestra. In addition, he has been a booking agent and has packaged musical entertainment for myriad organizations and conventions.

In short, he knows music, he knows

performers, and his line of patter as a popular deejay fits his audience and their preference for the big band tunes from the '30s, '40s and '50s.

If the number is right, the old professor even plays songs from the 1960s or later. But they have to fit the mood he has created for his popular Memory Music Club.

## The dances have been an excellent promotion for KSPI, building audience and goodwill.

Since being granted disability retirement from Oklahoma State University in 1982, Dr. Anderson has been able to spend more time with his first love, music, "more as a hobby than anything else," he says.

For one thing, he enjoys "stepping back into the classroom" in the state's Elderhostel program. He has created 10 Elderhostel sessions focused upon the big band era.

## Synergy abounds

He also plays in the Stillwater Community Band, fronts his five-piece combo and has two radio programs, "Carl Anderson in the Afternoon," airing Tuesdays and Thursdays from 1 to 5 p.m., and his Memory Music Club, Saturday mornings from 8:05 to 9. Recently he has taken on new responsibilities as KSPI's director of operations and promotions.

There's a natural tie-in with the second part of that title, for the Stillwater Publishing Co., parent company of KSPI and its sister station KSPI-FM, sponsors

a schedule of free dances each year for the Memory Music Club featuring Anderson's combo. The dances have been an excellent promotion for KSPI, building audience while they build goodwill for the station.

Leon Matthews, KSPI general manager, is enthusiastic about the big band emphasis. "We're the only station in north central Oklahoma playing this format," he told RW. "Folks like it and are urging us to keep it. We plan to do that."

Matthews said the station gets phone calls and letters from big band fans in Oklahoma City, Shawnee, Alva, Enid, Ponca City and as far north as Wichita.

## True believers

At the corporate level, James R. Bellatti, former international president of the YMCA and one of the guiding lights in the Stillwater Publishing Co., shares Matthews' enthusiasm.

"Our AM goal is to serve a mature adult audience with big band music," Bellatti said. Despite its programming for those who grew up in the Glenn Miller, Tommy Dorsey and Bennie Goodman era, the station also is hearing from young people who have discovered swing after years of rock and roll. We're pleased with the response."

On the FM side, the station uses a triple-A approach: adult alternative album programming, introduced by "The Z Man," Paul Ziriaux. Such groups as Smashing Pumpkins, Collective Soul and Gin Blossoms are featured.

Program Director Jim Randolph reports that other radio stations are calling for information on how to get into the format.

Ziriaux, who created the Triple-A while serving as assistant program director, said KSPI-FM is the only Oklahoma station using the format.

The station's popularity in Oklahoma City called it to the attention of the capital's trendy entertainment and social life weekly, The Oklahoma Gazette. That may have had something to do with the growing interest, staff members told RW.

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Harry Heath is a professor emeritus at Oklahoma State University.

## Telos One Proves Itself Versatile in the Field

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After a simple set-up of input and output levels with a couple of trimmer pots on the front panel, operation of the Telos One boils down to the position of three controls.

One, the override button, engages two independent functions: caller ducking and acoustic ducking. Ducking is the switching action that takes place between send and receive audio. When caller ducking is active, there is about 6 dB of ducking applied to the caller audio when the interviewer speaks. Acoustic ducking helps prevent feedback when using speakers. Telos recommended that I leave this button on, which I did.

The second button, selected AGC, the telephone dynamic gain processing includes automatic gain control and a smart noise gate/downward expander function. (More about this later.)

The third control (actually it's a pair of buttons that say "On" and "Off") allows the Telos One to seize the phone line.

One point to remember here. When pushing the On button the line is grabbed, and the system sends out a burst of white noise. This allows the digital adaptive filters to adjust to the phone line's impedance. It is very important to firmly push this button and hold it for at least a quarter of a second so the tone is fully deployed. A quick flick may not be good enough and may severely limit the operation of the device.

I encountered only two minor problems in setting up the Telos One. One involved the type of microphone I used. Initially I tried both a handheld dynamic and a headset dynamic. Though the mic levels checked out fine in the set-up procedure and the callers could hear me, the output level of the dynamic mics were inadequate and too low to work properly with the Telos One's mix output. In fact, my voice barely could be heard in the mix.

This problem was quickly remedied by switching to a much "hotter" condenser mic mounted on a headset. It would be useful if Telos could include some kind of adjustment for different microphone types, especially on hybrids being used in the field without mixers.

The second problem involved the varying level of phone lines. When using the standard Telos software with my office phone line in New York City, I got mildly distorted caller audio when the AGC button was engaged. I also found that my voice bled over into the callers audio.

Don Kolter, customer support engineer for Telos, recommended I install different chips in the unit to "Dallas" software.

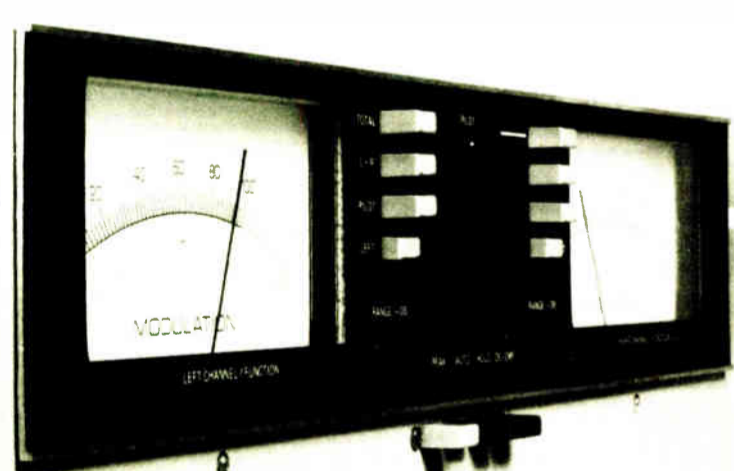
The Dallas software is optimized for poor phone lines with widely varying levels. It has more aggressive AGC for the caller audio and it adds more ducking. It also fixed my problem in New York and worked fine in the Telos One in other cities during work on the documentary.

The Telos One was a breeze to use on the road. It fits perfectly into a sub-notebook computer case for travel and takes only two to three minutes to set-up. All the operator needs to do is make the call, press the On button and start the tape recorders rolling.

The audio quality was consistently excellent. Of the dozens of interviews recorded for the documentary, overall quality varies due to phone lines but every one is of broadcast quality, thanks to the Telos One.

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Frank Beacham's documentary "Forbidden Fruit: How 'Race' Music Became 'Beach' Music on the Carolina Coast" will air on public radio stations in 1996.



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## OFFBEAT RADIO

# School Pioneer Thrives on Change

by Dee McVicker

**FARMINGTON** Dick Robinson was schooled in the ways of broadcasting long before he opened the doors to the Connecticut School of Broadcasting 30 years ago in September.

He started spinning records during his boyhood, and by his late 20s, Robinson had interviewed just about every rock

radio and to shake hands with other notable groups and personalities, including the Rolling Stones, Diana Ross and even President Bush and President Carter.

Robinson also went on to start the Connecticut School of Broadcasting, often referred to as the oldest and largest group of broadcasting schools in the country. "That year, after The Beatles hit, I started thinking that this (Connecticut) would be

Enrollment has remained steady over the years. "We have the same enrollment; if anything it's gone up, but they come from all ages and all backgrounds," Robinson said.

The school's campuses reflect the trends in broadcasting. "The biggest change I see is the women getting into broadcasting. All forms of radio and TV... have women today," he commented.

The campuses also reflect the growing interest in radio and TV from all walks of life. "We have people from all backgrounds and jobs. People that are lawyers, doctors, preachers; people with master's

degrees to people that were high school clowns," he added. Robinson has always believed that the true test of talent is in the doing, not in the academics. Many times, Robinson observed, it's the class clown that exceeds in radio, not the lawyer.

In 1980, Robinson sold his on-campus stations WRCQ(AM)-WRCH-FM to become more active as the Connecticut School of Broadcasting's president. Today, he stays active in student life, but still has a recording studio at his home, located on top of Rattlesnake Mountain in Connecticut where he likes to spin a few records on occasion.

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*Dee McVicker is a freelance writer and regular contributor to Radio World. She can be reached at 602-545-7363.*



Dick Robinson leans into fame.

group and rock group hopeful of the 1960s as a DJ. And always, from his first exciting encounter with radio as a fresh kid behind the mic until he sold his two stations in 1980, Robinson has demonstrated a passion for teaching broadcasting.

"I was so bitten by the (radio) bug, (that) a couple of the guys got together and we began putting these lesson plans together so we could really tell it like it is, teach it like it is," he said.

That was in 1964. It was a remarkable year on many counts, most notably the arrival of the British "rock" Invasion, and one event in particular would greatly influence Robinson's desire to start a broadcasting school.

## Meeting the Beatles

At the time, Robinson was a DJ for WDRM(AM) of Hartford, Conn., and The Beatles was still an upstart band. Then, Robinson recalled, "All of sudden this thing hit... everybody went crazy, so we went down to the plane where they were welcoming the boys in from London, and I had interviews with The Beatles. I was asking the silly questions everyone wanted to hear at the time: 'What's your favorite color?' 'When was the last time you got a haircut?'"

Robinson, fighting back a frenzied New York City crowd, somehow managed to get in the way of the camera lens of a UPI photographer, who took a picture of Robinson peering from the corner of what would become a famous promotional shot of the rock group.

The next morning, his face appeared alongside that of The Beatles in a number of newspapers and film footage announcing the group's upcoming appearance on the Ed Sullivan Show. That night, The Beatles went on to superstardom and Robinson went on to a successful career in

a great place to open a school," he said.

He was right. Paying little for air time on WDRM, he advertised the first class. Over 400 people applied. While the British Invasion continued to pervade the nation, and the Dickie Robinson music/oldies night show on WDRM was commanding 60 shares, Robinson worked feverishly behind the scenes formulating plans for the Connecticut School of Broadcasting.

## Class starts

In September of 1964, he enrolled 44 students and began the first Connecticut School of Broadcasting class from a suite in downtown Hartford's then Hotel America. Ironically, on the first day of the school's existence, Robinson's voice gave way—as it sometimes had since his early childhood, when he became dogged by vocal problems as a result of a childhood emergency tracheotomy and asthma. He called on fellow broadcasters for help for several weeks until his voice returned.

That was 30 years ago. Since then, the school has grown to include its headquarters in Farmington, Conn., and campuses in Stratford, Conn.; Wellesley Hills, Mass.; Hasbrouck Heights, N.J.; and Palm Beach, Fla. There are also franchises in Atlanta, Cleveland, Cincinnati and Chicago, most operated by former Connecticut School of Broadcasting graduates.

Thousands of broadcasters have embarked on broadcasting through the school's doors, including WYNY DJ and voice of HBO Bill St. James, DJ and TV producer Jim Robinson and Satellite Music Network DJ Bob Leonard. As it has been since the school opened, each campus opens its doors to 100 students annually. Courses are offered three times a year, running eight weeks for day classes and 16 weeks for evening classes. To be accepted, all students must pass an audition.

## Quantum FM

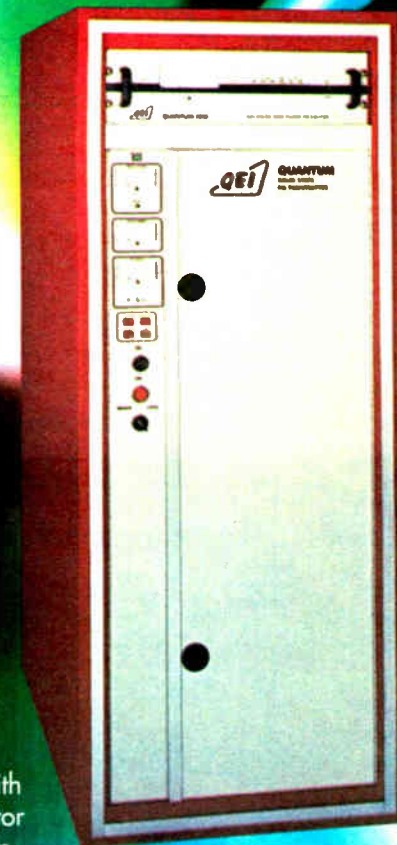
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## COLE'S LAW

# Have You Paid Your FCC Fees Yet?

by Harry Cole

**WASHINGTON** Even though we are well past the relevant deadlines, it's probably not a bad idea to ask ourselves whether we filed all of the required annual FCC regulatory fees. In view of the newness of the regulatory fee process, it's hard to tell just how well the industry at large has actually complied with that process. And so, in case it has escaped your attention thus far, we offer this little reminder.

First, some background. While regulatory fee checks must be made payable to the FCC, it is not really the FCC's fault that we have to write the checks in the first place. Rather, that responsibility belongs to Congress, which passed "The Omnibus Budget Reconciliation Act of 1993" which created the fee requirement.

The idea is to "offset costs" associated with the Commission's enforcement, public service, policy and rulemaking activities by creating a whole new revenue stream flowing into the FCC's coffers (and, through them, the government's general coffers). This means the money must come from the pockets of FCC regulatees such as broadcasters.

Bear in mind, the regulatory fee requirement is over and above the longstanding application fee requirement. In other words, you still have to pay fees for each application you file. It's just that where your application fee used to be like a

one-time-only admission ticket, it is now more like a down payment on a perpetual lease.

The regulatory fees vary depending on the type of license(s) or permit(s) you hold. They can range from \$250 for a little old Class D AM license, to \$900 for a Class C, C1, C2 or B FM license, to \$18,000 for a VHF TV license in one of the top ten markets.

## Bear in mind, the regulatory fee requirement is over and above the longstanding application fee requirements.

If you're not sure what class your station is, the FCC can provide that information, call their Fees Hotline at 202-418-0220.

For construction permits the fees range from \$100 (for all AM permits) to \$500 (for all FMs) to \$4,000 (for all TVs). And don't forget each and every auxiliary authorization you might have, like those STLs and remote pickups and the like. Each auxiliary license costs an extra \$25. Oddly enough, though, there is no fee for FM translator or booster licenses (at least in 1994).

This is not to suggest that you can or should try to include any particular fee amount as a recurring budget item when it comes to planning for future years. The

FCC advises us that the amounts of its regulatory fees are likely to change each fiscal year. For those of you who would at least like to try to plan for next year, it's probably a safe assumption that the fee in any year is not likely to be less than the fee in the preceding year. The near-certainty of future increases in the regulatory fee was illustrated earlier this year when the FCC announced increases in virtually all of its application fees.

Those increases went into effect in mid-July, so if you haven't filed any applications since then, you should be sure to consult the updated

application fee schedule before you file.

This year's regulatory fee payments were due to be filed by September 2 (for AM licensees) and August 10 (for FM licensees). If you missed the relevant deadline, you should hustle up and get your fee filed as soon as possible. The FCC has warned that it can tack on a 25 percent "monetary penalty" for failing to pay the fee as required. In addition, the Commission has threatened to dismiss pending applications or even revoke licenses for failure to pay.

While it's not really clear whether (and if so, how and when) the FCC intends to make good on these threats, discretion may be the better part of valor here, especially in view of the potential stakes.

In keeping with the existing application fee process, all regulatory fees must be sent to Pittsburgh. The FCC, of course, doesn't have any offices in Pittsburgh, but

it has a nice relationship with a bank there which processes all payments and forwards any related paperwork on to the commission in Washington.

That paperwork, in this case, includes an "FCC Remittance Advice - FCC Form 159" (together with its continuation sheet, FCC Form 159-C, in case you need more room to answer the questions). One helpful tip; when the Form 159 asks you for your "FCC Account Number," what it really wants is the payer's tax payer identification number, which all of you presumably have. If you don't have one, you can use your telephone number (including area code). You can pay by check, money order, wire transfer or even Visa or MasterCard.

One interesting quirk of the new regulatory fee requirement is that the obligation to pay a fee this year and the amount of the fee depend on the status of the authorization as of October 1, 1993. But the obligation to pay falls on the shoulders of the permittee or licensee in place as of the due date of the fee. In other words, if you bought the station in, say, June, 1994, you're on the hook for the fee. The good news is that if the station you bought happened to have only a construction permit as of October 1, 1993, you owe a regulatory fee for a permit only, even if, by the time you bought it nine months later, it had been licensed.

In this new era of spectrum auctions and the like, these regulatory fees are probably just a harbinger of more to come, as the government seeks increasingly to fund its own operations from various profit-making sectors of the economy.

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Harry Cole is a partner in the Washington-based law firm of Bechtel & Cole, Chartered. He can be reached at 202-833-4190.

## FCC Rules on CD-ROM

► continued from page 53

on CD-ROM utilizes the Folio PreVIEWS read-only interface, which allows users to carry out a variety of tasks, including searching the disk's contents and printing the results).

Let's say your station is considering involvement in a duopoly situation. A single mouse click on the Query button on the left side of the desktop brings you to the query screen. Just type your request in the section marked "Query For." By the way, you can search in individual infobases, or in all of them, by clicking on the "Apply to All" button on the "Query" screen (make sure that you've opened, or engaged, each infobase you want searched).

The number of "records with hits" is displayed in a section at the top right of the Query screen. Click on "Okay" to see the actual records.

If your station resides on the AM dial, you might want to see how many references there are to AM on the disk. By typing "AM" in the "Query For" section, I found a total of 449 "hits" scattered among the three infobases. I was interested in finding references to "AM propagation"; by typing "AM propagation," I narrowed the field to a single "hit" found in the Rules infobase—Subpart A - AM Broadcast Stations, section 73.183 - Groundwave Signals, (e) Example of the use of equivalent distance method.

Concerned about on-air indecency?

Who isn't these days? Looking up indecency is a snap. In the September 1994 edition, I found 10 "hits" in the NPRM infobase. Want to know about EBS? I found a total of 216 "hits." Typing "EBS Rules," I narrowed the total number of EBS-related hits to 32. You can access each successive "hit" by clicking on the "Next" button on the screen (you can also access "hits" you've already seen by clicking on the "Previous" button).

The handy toolbar on the left side of the screen allows you to perform a variety of functions in addition to "Next" and "Previous," with a simple click of the mouse; for example, you can view a "map" of your path as travelled during your session.

Need a printout of a particular hit? Choose Print from the File pulldown menu at the top of the screen, and, *voila!*—you have a handy piece of paper to circulate to those who need to know.

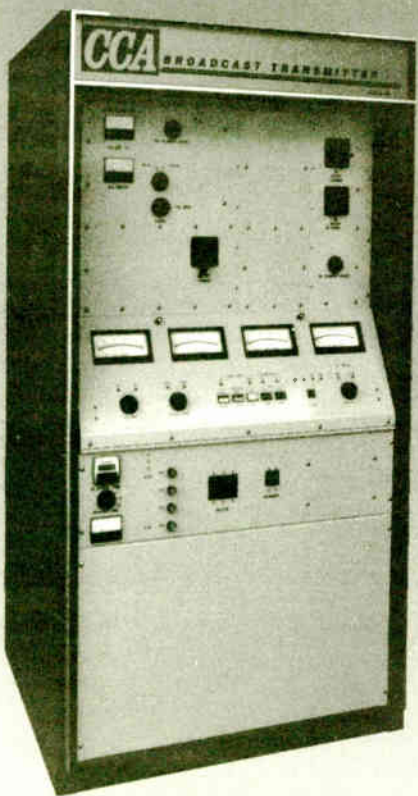
By enabling "Show Hits" in the "Page Setup" utility, accessible under the "File" pulldown menu, the words that make up your query are printed in bold and underlined on your printout, allowing immediate identification.

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Regardless of your requirements, you could very well find yourself consulting *Communications Regulation on CD-ROM* on a regular basis. Call 301-654-6262 for more information.

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#### BAD SOUND SUCKS.

Our Foam Can Dramatically Improve Your Station's On-Mic Air Sound!

**Studiofoam Sound Absorbent Wedges**  
The industry's most absorbent foam! Uniform cut for clean & easy installation. Up to 90% more effective than other name-brand foams that can cost 5 times as much! Passes California firecode, 48% more flame retardant than Sonac. Available in 1, 2, 4 & 12 inch (base trap) sizes in 2'x4'sheets. Long-lasting, doesn't crumble like other brands can. Wide range of colors. What A Value!!!  
1"-\$7.99, 2"-\$10.99, 4"-\$20.99

**Sonomet Convuluted Acoustic Foam**  
Cut in the industry-standard "eggcrate" shape. 4'x8' or 2'x4' sheets. 2 inch thick, charcoal gray. 85% as effective as Studiofoam Wedges & just as long-lasting & flame retardant. Beats other brands that cost 5X as much. 4'x8' sheets sold in pairs only @ \$34.99 per sheet. 2'x4' min. 1 box of 12 sheets @ \$9.99 per sheet. Spend more or less elsewhere & you're not getting the best value for your money! Call today!

CALL FOR FREE SAMPLE KIT  
USAfoam - Box 20384 - Indianapolis IN 46220  
**1-800-95-WEDGE**

Circle (93) On Reader Service Card

### AMPLIFIERS

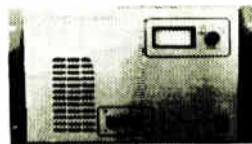
Want To Sell

LPB DA-116, never used. J Gelo, J&H Music, POB 1697, Marco Isl FL 33937. 813-642-6899.

Tepco RF amp J-319-10 3 outputs, tuned to 99.3 MHz, \$1750. Call 602-234-6355.

Pacific Recorders SDA-8 DA with XLR connectors. J Miller, KABC 3321 S La Cien-ga Blvd, LA CA 90016. 310-840-4996.

### B-500 BROADBAND FM AMPLIFIER



#### FEATURES:

- 100% solid state
- No tuning required
- Rugged power supply
- VSWR, current, & temperature overloads
- Power trim standard
- Full remote control capability, with outputs for all main parameters
- FCC notified
- 600 W max output

Broadcast Technology Company

**BT**

PO Box 751  
Lamar, Colorado 81052  
tel: 719-336-3902

Perma Power S-102 with S1420 battery pack, mobile/port PA, 12 W out, excellent condition, \$90. R Sumner, CAVU, 44632-112 Guilford Dr, Ashburn VA 22011. 703-450-2288.

Want To Buy

### WANTED:

Pultec EQ's; Fairchild, Teltronix, dbx, UREI, Sontec Limiters. Neumann, Telefunken. AKG and RCA mics. MacIntosh or Marantz Gear; Lang, Neve and API gear. Misc old tubes and guitars.

**DAN ALEXANDER AUDIO**  
1340 Mission Street  
San Francisco, CA 94103  
(415) 252-7102  
FAX: (415) 252-7524

McIntosh MI-200 rackmount tube amp. 212-343-0265.

### ANTENNAS/TOWERS/CABLES

Want To Sell

Advance 333 620' communications tower, 48" face, 3" angle iron legs, heavy galvanized, painted, perfect cond, \$20,000. A Walters, 2003 N Locust Ave, Lawrenceburg TN 38464. 615-762-3143.

Shively 6 bay HP, on 104.1, \$8000 + shipping. S Fortenberry, WCXL, 179 Lovers Lane, Elizabeth City NC 27909. 919-335-0856.

Andrew A10R 50507 1 5/8" coax w/connectors, 275' rolls (6), \$1100/roll. S Ross, Quinn Bldg, 733 N Green St, Brownsburg IN 46112. 317-852-9119.

### FM - ANTENNAS

Designed and built for your frequency. Choose from 1 to 12 bays and five power levels. Financing available.

Call Jimmie Joynt at  
**214-335-3425**

Want To Buy

FM on 104.3 and wide band on 97.7. B Lacy, WAVQ, 2025 N Hwy A1A, Indialantic, FL 32402. 407-773-1962.

### AUDIO PRODUCTION

Want To Sell

dbx 155 4 chnl encode/decode type 1 NR (2), BO. P Cibley, Studio C, POB 767, NY NY 10156. 212-532-2980.

Delta AM stereo setup, Delta exciter, mod monitor, Orban Optimod, all manuals. D Graichen, 123 E Main St, Lafayette LA 70501. 318-233-1330.

SAE 5000 impulse NR system, excellent condition, \$125; Bogen Techcraft TCE-200, 1/3 octave graphic EQ, excellent condition, \$75. R Sumner, CAVU, 44632-112 Guilford Dr, Ashburn VA 22011. 703-450-2288.

ADC 1/4" patchbays & cords, new, under half price; ADC TT patchbays \$149 up, new cords \$9.95. W Gunn, POB 2902, Palm Springs CA 92263. 619-320-0728.

### CASSETTES • CARTS • REELS

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20899 Kelvin Pl.  
Woodland Hills, CA 91367

Circle (70) On Reader Service Card

Bulk erasers for 1/2" \$79, Stewart direct boxes mono & 4 ch \$50 up, Cue command decoder \$125, ABC Network decoder \$125, Audiotechnica ATP-12T tone arms new in box (2) \$95 ea, Eventide H949 harmonizer \$495, new Tascam midlizer MTS1000 \$750, AB 200w power amp \$249, Dyna stereo 120 rack mt amp \$229, Gates tube Sta-Level pair, both \$400, Sherwood FM tuner, new tubes \$79, Altec 250 SU classic 10x2 tube recording console, rebuilt \$2500, Infonics 7" reel copier 3 copies \$300 ea, Shure M67 remote mixers \$125, Crown & Furman elec crossovers \$95. W Gunn, POB 2902, Palm Springs CA 92263. 619-320-0728.

Good used studio tape 1/2" \$15, 1" \$30, 2" \$55. W Gunn, POB 2902, Palm Springs CA 92263. 619-320-0728.

RECORDING STUDIO EQUIPMENT: 16x8x2 CONSOLE, ANALOG RECORDERS, OUTBOARD GEAR, MONITORS, MIC'S. CALL STEVE AT 309-579-2142.

Want To Buy

Ampex tube mixers, recorders, especially MX10, MX35, 602-1 or 602-2. W Gunn, POB 2902, Palm Springs CA 92263. 619-320-0728.

UREI 811 or 813; Tascam DA88 & remote; Mackie 24/8 or 1604; Technics SLP-1200 or 1300s; Aiwa ADF770 or 990; Shure SM57 or 58s; Sennheiser 421; EV RE20; Crown PSA2; Tascam PB64; Numark CD9000; Ashly SC77. Will buy but prefer to trade acoustic foam or acoustic foam & partial cash. Call Eric at 1-800-95-WEDGE.

### AUTOMATION EQUIPMENT

Want To Sell

350 Carousel, fair condition, \$200/BC; IGM Go-Carts (2), excellent condition 78 trays, racks also available, \$300/ea; racks, deluxe, \$100. R O'Kelly, KLOO-AM 1221 SW 15th, Corvallis OR 97339. 503-753-4493.

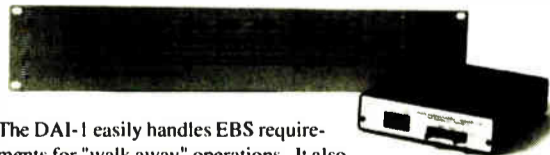
IGM Cart Encoder including video terminal, IGM FSK encoder & cables, barely used, BO + shipping. T Anderson, KXLY, 509-324-4000.

IGM Basic A parts and service, several source cards, spare entire systems, cables, extra memory, etc, call for price. R O'Kelly, KLOO-AM 1221 SW 15th, Corvallis OR 97339. 503-753-4493.

IGM Instacart 48, decent cond, rack avail, \$400; deluxe rack, \$100. R O'Kelly, KLOO-AM 1221 SW 15th, Corvallis OR 97339. 503-753-4493.

### Announcing New Crisp Voice

The RFC-1/BHV3 provides transmitter power control, has alarm dial out for 6 numbers, and provides up to 64 channels of control and metering.



The DAI-1 easily handles EBS requirements for "walk away" operations. It also allows direct access to the air chain in addition to providing remote broadcasts. The best & lowest cost 'dial-up' remote control available.

**SINE SYSTEMS**

### Complete Backup System under \$ 7,000!

Henry Radio 500W solid state transmitter  
BEXT 25W exciter  
SWR 1 bay antenna  
100' Andrew 1/2" cable & connectors

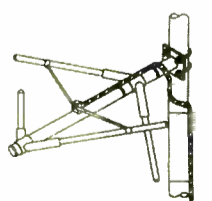
### Energy Onix

- Modern Solid Stage Technology
- Frequency Agile with Front Panel Selector
- Remote Control & Metering

0-30 Watt FM



Ideal for low power FM broadcast stations or translators that require circular polarization.



88-108MHz, 500Watts Model FMEC

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Circle (139) On Reader Service Card

World Radio History

## AUTOMATION EQUIP...WTS

SMC ESP-2 system, 86" racks (2), ARS-100 R-R (4), dual direction 450 Carousels (6), monitor CRT's w/keyboards (2), Brain w/fiber optics interfacing and more. D Engelhardt, KYEZ, 1510 E Iron Ave, Salina KS 67402. 913-823-1111.

Cetec 7000 system with terminal encoder & cables, ITC PB reels (3) with racks, IGM 42 tray Go-Carts with racks, 3" disk drive, case of paper, printer, all, cables, switchers and more, all machines factory rebuilt, will deliver w/in reasonable distance, Best Offer. T Yarbrough, WCDT, 1201 College St, Winchester TN 37398. 615-967-2201.

Printed circuit boards for SMC DS-20 switcher and 452 bi-directional Carousels. R Statham, WSTU/WHLG, 100 Alice Ave, Stuart FL 34994. 407-692-1000.

SMC 25 Hz tone generator and 25 Hz decoder, \$200 ea/\$375 both. R Statham, WSTU/WHLG, 100 Alice Ave, Stuart FL 34994. 407-692-1000.

SMC DX-20 switcher, brain, RAC31 remote control, power sup, PDC clock, encoder with video terminal, sell as package or by piece. R Statham, WSTU/WHLG, 100 Alice Ave, Stuart FL 34994. 407-692-1000.

Introducing: NEW! The AUTO-MATE *Digital Hard-Drive Automation* self-contained automation or live playback. Uses IBM(tm) 286+ compatible PC's, with *SoundBlaster(tm)* audio card. **Software introductory price: \$149.95!** For free information and demo disk: CALL: 503-769-2886.

Sentry FS-12C, good/excellent condition, \$2900; TS-1 also available. Call 806-372-5130.

## Want To Buy

TM Century auto segue/audio interface box for UDS system; also Sony CDK-006 jukebox. A Neri, WGK, POB 590, Middlebury VT 05753. 802-388-4101.

## CART MACHINES

## Want To Sell

Dynamax CTR10 stereo, 100 slot wall mount racks (2), 255 slot floor rack; 300-400 Scotchcart II NAB Type AA. Jerry, WGER, 6165 Bay Road, Saginaw MI 48604. 517-792-1063.

ITC mono R-P, good condition, \$450; Spotmaster 405 mono, \$100. R Statham, WSTU/WHLG, 100 Alice Ave, Stuart FL 34994. 407-692-1000.

AudiCord mono cart machine, mint condition, \$650.00. Call 806-372-5130.

BE 5300C tripledeck, stereo, PB, mint less than 50 hours, Best Offer. R Kaufman, Pams Productions, POB 462247, Garland TX 75046. 214-271-7625, after 3PM CDT.

Great Prices on original equipment tape heads for ITC, BE, Fidelipac, Otari, Tascam & others!  
(804) 984-4255  
**HE HALL Electronics**

TURN YOUR COMPUTER INTO DIGITAL CART MACHINE. SEE AUTO-MATE AD UNDER AUTOMATION EQUIPMENT.

## Want To Buy

ITC, BE, Fidelipac cart machines: single, triple, mono, stereo, play & record/play. Call M O'Drobinak @ 619-758-0888.

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Thousands Serviced • Unbeatable Rates  
Precision Capstan Resurfacing  
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**PRICE-QUALITY-SERVICE**  
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## Want To Sell

Revox A-77 (3) 3.75/7.5 ips, rack mounts, good condition, \$250/each; Revox PR-99 automation decks 7.5/15 ips, PB only with built-in tone sensor, good condition, \$600/each. R O'Kelly, KLOO-AM 1221 SW 15th, Corvallis OR 97339. 503-753-4493.

Crown SX-722 1/2 track stereo in portable case, \$300 + s&h; Uher 4000L recorder, case, AC/charger, mic, stand & wind screen, \$100 + s&h. G Hultman, 300 Limpy Creek Rd, Grants Pass OR 97527. 503-474-6466.

Ampex 440 4 trk, 1/2" with remote and roll around stand, \$750; Technics 10A02, 1/4", 2 track, 4 dBm in/out, \$500. G Guarino, Sorcerer Sound, 19 Mercer St, NY NY 10013. 212-925-1365.

MCI JH-114, 24 track, 2" with autolocator remote, 16 track head stack, \$12000; Nagra E, 1/4" full track mono, \$750. G Guarino, Sorcerer Sound, 19 Mercer St, NY NY 10013. 212-925-1365.

ITC 750 R-R, R-P, good condition, \$450. R Statham, WSTU/WHLG, 100 Alice Ave, Stuart FL 34994. 407-692-1000.

Tascam 34B 4 trk R-R w/matching 4 chnl console. D Graichen, 123 E Main St, Lafayette LA 70501. 318-233-1330.

Nagra E needs tune up of transport and cleaning, heads in fine condition with atn power supply, mono, excellent recorder, \$500/Best Offer. D Bates, Cedar Post, 209 Yale Ave, Swarthmore PA 19081. 610-328-3668.

Revox A77 (4), some working, with manual, \$500/4. M Grubbs, KRNH, 1216A Sidney Baker, Kerrville TX 78028. 210-896-4990.

Tascam 1/2" test tape for model 38, \$25; rack mt adaptor for mdl 38, 34, 32, \$25. P Cibley, Studio C, POB 767, NY NY 10156. 212-532-2980.

## REVOX PARTS/SERVICE

Cassette-CD-Open reel  
Rebuilt A77s, \$850.00  
Capstan resurfacing, ALL BRANDS.  
**JM TECHNICAL ARTS**  
30 Music Sq. W. #156  
Nashville, TN 37203 (615) 244-6892

Rcvr capable of FM squared to PU 1-23 MHz, will consider just demod with power supply. R Watts, WAPF, 206 N Front St, McComb MS 39648. 601-684-4116.

Teac A-3300-SX, 3 3/4" x 7 1/2" ips, 7" and 10 1/2" reel modes, 1/4 track stereo, excellent condition, \$450. S Lawson, KAK Productions, 928 Hyland Dr, Santa Rosa CA 95404. 707-528-4055.

Technics 1500 1/4", 2 track, +4 dBm in/out, \$450; Revox ATT, 1/4" 2 track, 4 dBm in/out, \$350. G Guarino, Sorcerer Sound, 19 Mercer St, NY NY 10013. 212-925-1365.

MCI JH110B 2 track, roll around, good condition. J Gelo, J&H Music, POB 1697, Marco Isl FL 33937. 813-642-6899.

Otari MX5050, 2 chnl R-R. Jerry, WGER, 6165 Bay Road, Saginaw MI 48604. 517-792-1063.

## AMPRO-SCULLY CONSOLES CART RECORDER PARTS AND SERVICE

**SEQUOIA ELECTRONICS**  
(408) 363-1646  
FAX (408) 363-0957

Otari ARS 1000 R-R, PB only (3); \$350 each/\$900 all. R Statham, WSTU/WHLG, 100 Alice Ave, Stuart FL 34994. 407-692-1000.

Studer B67 with manual, \$1650; Studer A67 in wood case, \$600. India Navigation, 177 Franklin St, NY NY 10013. 212-219-3670.

Ampex ATR 100 (2) 4 track \$3500 each, 2 track 1/2" \$4000, (2) 2 track 1/4" \$2500 each. 212-343-0265.

Ampex ATR800 mono, Tascam 25-2, Tascam 7300, Ampex ATR700, \$695 ea, Scully 16 track 2" \$3450, Tascam 52 top of line, \$1150, Ampex AG350 electronics \$75, 3M M56 16 track \$5500, M79-24 fully rebuilt \$11500, Tascam locator for 85-16 \$495. Sony TCD-5 & Marantz stereo 3 head portable cassettes both \$475, Fostex E22 1/2" center track timecode deck \$1800, Fostex A80 8 track & 450 mixer \$1950, Tascam 80-B & M5 \$1950, Nagra 10" reel adaptor \$1400, Nagra 4.2 sync mono, Haliburton case, Tote, AC ps \$2500, Tascam 38 8 trk w/dbx \$1650. W Gunn, POB 2902, Palm Springs CA 92263. 619-320-0728.



**VERTIGO BURNISHERS AND INJECTORS RESTORE ORIGINAL PERFORMANCE TO YOUR PATCH BAYS**  
**\$34.95 Ea.**  
**VERTIGO RECORDING SERVICES**  
12115 Magnolia Blvd. #116 818-907-5167  
North Hollywood CA 91607 fax 818-784-3763

Ampex 350, 3 motors, 2 spd, all cables, \$495, with new Inovonics electronics, elect never used, \$1495. WBXX, POB 398, York SC 29745.

Otari Mark II-IV 1/2" 4-track, multi-track, mint, less than 50 hours, Best Offer. R Kaufman, Pams Productions, POB 462247, Garland TX 75046. 214-271-7625, after 3PM CDT.

Scully '100' recorders, record/play amplifiers, 8, 16, 24 track heads. Sequoia Electronics, 4646 Houndshaven Way, San Jose CA 95111. 408-363-1646.

UHER 4400 report monitor, \$650; UHER 4400IC stereo, \$125. S&G Electronic, 215-474-7663.

Ampex, ITC, Scully Reel-to-Reel Tape Recorder Spare Parts, Accessories Motor Remanufacturing.

**VIF INTERNATIONAL**  
PO Box 1555  
Mtn View CA  
94042 U.S.A.

Inside USA: 1-800-848-4428  
Outside USA: 1-408-739-9740  
FAX: 1-408-739-0809

## Want To Buy

Ampex ATR100 taperecorders for parts. Circuit cards, heads, motors, machine parts, or electronic parts. Call 818-907-5161.

Nagra 4S, crystal sync not necessary. Reasonable price. Noel 215-474-7663.

## COMPUTERS

## Want To Sell

Compuadd AM/FM stereo, new computer card (3), 8 bit, Windows only software, graphical tuner, \$50 each. Brian, CDJ, 1861 Brown Blvd, Arlington TX 76006. 214-364-4523.

Many computer items. Call for info or to be faxed a current list. Some store demos from closed computer store, some gently used. Call Eric at 1-800-95-WEDGE.

## Want To Buy

Tandy 6000HD with at least 1 floppy drive. Mel Crosby, 408-363-1646. FAX 408-363-0957.

## CONSOLES

## Want To Sell

Audio Technica 4 track, Yamaha 16 channel mixer, \$1250; Korg DW8000 with heavy case, \$300; Casio CZ 101, \$75; Arp Omni 2, \$250; Opcode Studio 3 MIDI interface, \$200; AKG 414 mic, \$450. G Fitz, Fitzmusic, 718-446-3857.

## EMPLOYMENT

To place ads in this section, use the ActionGram form. To respond to box numbers write Radio World, PO Box 1214, Falls Church, VA 22041. Attn: \_\_\_\_\_

## POSITIONS WANTED

AM/FM/TV pro, 20 yrs experience, would like F/PT announcing/production, S Jersey/Phila, all formats. Dan, 609-547-3616.

Bro-Zam eccentrically comedic and entertaining radio duo, exc writing and prod, well read, educated, and potty-trained, Chicago market exp. Dominick, 708-860-0754.

Country mornings w/adult attitude, brains & mouth work in tandem, topical, humorous. Mike, 608-723-2723.

Dr Mindbender is ready to rock the airways. Lee, 918-627-2586.

Gerald Jones entering broadcast to meet your needs, engaging on-air, slick production, creative copy, authoritative news, willing to relocate. 405-848-8994.

Gifted tech and computer skilled BSEE grad seeks PT broadcast eng job in NC or VA, Ham, EIT certified, with DOS, Windows and VB experience. Chris, 919-985-2863.

20 yrs experience, broadcast school grad, AM/FM, any format, FCC 1st class/Gen/Radar, Marine, rest, ham, SBE cert. C Hamlin, 509 W 4th St, Corbin KY 40701. 606-528-5460.

## HELP WANTED

**CHIEF ENGINEER** for Class C FM & Class B AM in Southeast. Must be knowledgeable in both high power AM, FM & studio equipment. Send resume to:  
Radio World, POB 1214  
Falls Church, VA 22041  
Attn Box#: 94-11-16-1 RW

Have mic, will travel, dynamite air and production skills, can sell, ready to move now. Dennis, 918-234-8528.

Hot rock to hot country, strong air personality, dynamite prod/news, hard worker, quick study, willing to move. Kevin, 918-462-7828.

Mature female wants opportunity to learn talk radio from ground up, outstanding news, copywriting, production skills. Karen, 918-224-4749.

PT Volunteer, hardworking, to learn all phases of broadcasting, production, on-air. Mark, 914-344-1118.

7 year radio pro interested in doing voice overs for any format, reasonable rates. John, 302-475-0814.

Recent anncr grad skilled in copywriting and production, seeks position with a superior production team, willing to travel. Stormwalker, 405-364-0606.

Space limits detail here, KY native seeks FT announcing shift, first PD gig, tired of excuses, PT work. Call Janet, 502-895-5888.

Terrific voice, air personality, love news and production, hard-working, stable, good attitude, team player. Rhonda, 918-582-9131.

You don't have to call him Ted or Teddy or even Theodore, but you do have to call him if you want radio's best entertainer. 405-631-1768.

Rick Allen a.k.a. Rick Savage from Akron, OH is available. 216-773-1549.

Young, ambitious annou cer/production whiz looking for post, can move immed. David, 918-245-8974.

Bright, friendly, ambitious and creative, seeks position using writing, vocal and prod skills. Lynn, 405-628-3707.

Genuine warmth, up & bright, talk or music, 25 yrs exp, in Seattle, but wants to move east. Tom, 206-217-9241.

Graduate, loves country/easy listening, sharp on-air, production, OKC or Tulsa pref, also relocate to Nashville or Colorado. Andrew, 918-425-2120.

Positive attitude, just out of school seeks on-air, production, sales, ready for broadcasting. Brian, 405-372-2364.

## ABOUT OUR EMPLOYMENT SECTION

**HELP WANTED:** Any company or station can run "Help Wanted" ads for \$1.50/word or buy a display box for \$60/column inch. Payment must accompany insert, use your MasterCard or VISA; there will be no invoicing. Blind box numbers will be provided at an extra charge of \$10. Responses will be forwarded to listee, unopened, upon receipt. Call 800-336-3045 for details.

**POSITIONS WANTED:** Any individual can run a "Position Wanted" ad, FREE of charge (25 words max), and it will appear in the following 2 issues of Radio World. Contact information will be provided, but if a blind box number is required, there is a \$10 fee which must be paid with the listing (there will be no invoicing). Responses will be forwarded to the listee, unopened.

Mail to: **BROADCAST EQUIPMENT EXCHANGE**  
PO Box 1214, Falls Church, VA 22041  
Attn: Simone Mullins

CONSOLES...WTS

RCA BC308S 8 input stereo, never used, spare cards, timer, manual, transformer in out, step attenuators, \$1000. D Brassell, Aldon Video, 424-S Commerce Ln, Berlin NJ 08009. 609-768-2439

Ramko DC5AR 5 channel mixers, vgc, \$175 each. 916-725-2434.

Shure M67 mic mixers, 4 inputs, excel cond, \$125; Model 677 10 inputs, \$100. R Sumner, CAVU, 44632-112 Guilford Dr, Ashburn VA 22011. 703-450-2288.

Autogram IC-10 10 channel stereo, good condition, \$2300. S Cilurzo, San Diego Digital, 9853 Pacific Heights Blvd, San Diego CA 92121. 619-452-9000.

Ramsa 8615 never used, in original factory cartons, 7 mono, 4 stereo modules, Best Offer. R Baur, KUTT, 414 4th St, Fairbury NE 68352. 402-729-3382.

Kustom 6 rotary pot, mono, solid-state, nds work, \$1300/BO. R O'Kelly, KLOO-AM 1221 SW 15th, Corvallis OR 97339. 503-753-4493.

MCI 528 was \$82,000 new, excellent condition \$16500. Quantum 32x16x24 as used by LA Philharmonic \$4950, Auditorics 501 \$3500. W Gunn, POB 2902, Palm Springs CA 92263. 619-320-0728.

RCA BC-14 rack mount console, good condition, \$100 + shipping; Monsanto 105-A freq counter, mint condition, \$200 + shipping; Audio patch bay, \$35 + shipping. W Tinsley, AirChecks USA, 1123 Holcomb St, Watertown NY 13601. 315-788-0914.

Want To Buy

Neve console, any type and parts. 212-343-0265.

DISCO-PRO SOUND EQUIPMENT

Want To Sell

Community CB 594 fiberglass bass horns, uses 15 or 18" driver, with EV 15DLX drivers \$225; with out drivers \$100. D Brassell, Aldon Video, 424-S Commerce Ln, Berlin NJ 08009. 609-768-2439

FINANCIAL SERVICES

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EQUIPMENT FINANCING ON ALL RADIO EQUIPMENT

- Easy to qualify
Fixed-rate, long-term leases
Any new or used equipment
100% financing, no down payment
No financials required under \$50,000
Refinancing existing equipment



Call Mark Wilson (800) 275-0185

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LOANS BY PHONE (800) 699-FLEX

- We finance all types of Broadcasting Equipment
Flexible Credit Criteria
Flexible Payment Plans
No Down Payment, No Payments For 90-Days Available

To apply or request additional information call Jeff Wetter.

FLEXLEASE, Inc.

LIMITERS

Want To Sell

Optimod 9100, AM processor. A Sutton, POB 5, Union SC 29379. 803-427-2411.

Harris SMP-90 AM peak limiter, requires ext NRSC, \$100/Best Offer. R O'Kelly, KLOO-AM 1221 SW 15th, Corvallis OR 97339. 503-753-4493.

Marti CLA-40H compressor/limiter, \$75; Dorrrough 310, 3 band processor, \$100. M Ritland, WXCE, POB 1260, Amery WI 54001. 715-268-7185.

Optimod 8100-A, \$4100; Optimod 8000, \$1695. J Davis, SCB, POB 7762, Amarillo TX 79114. 806-355-1044.

Orban 8000A excellent condition, with manuals, \$1300/Best Offer. R Fess, WLMD, POB 250, Macomb IL 61455. 309-833-5561.

Orban Optimod 8000A very good condition, factory recaped every 2 years, \$1500. D Missad, WOOD, 180 N Division, Grand Rapids MI 49503. 616-459-1919.

CBS Volumax stereo FM, slimline version. B Caithmer, WMBI, 820 N LaSalle Drive, Chicago IL 60619. 312-329-4304.

Want To Buy

903 (4) and 905 (2), want modules only. R Streicher, Pacific Audio-Visual, 545 Cloverleaf Way, Monrovia CA 91016. 818-359-8012.

Orban Optimod 8000 and 8100, in good out of service or non working condition. Emie, CBP Productions, Box 411, Alexandria KY 41076. 800-526-5450 ext 308.

Fairchild 670 or 660 tube compressor/limiter, Teletronics LA-2A tube compressor/limiter or UREI LA-3A solid state compressor/limiter, call after 3PM CST. 214-271-7625.

MICROPHONES

Want To Sell

Altec coke bottle tube mic, original power supply, case, \$350. Bob, Clockwork Sound, 606 Mamaroneck Ave, Mamaroneck NY 10543. 914-381-0661.

AKG C422EB, large diaphragm stereo, phantom power, remote pattern selector, 20-meter cable, windscreen and shockmount, exc cond, \$1850; AKG D-140 cardioid, \$225/pr. R Streicher, Pacific Audio-Visual, 545 Cloverleaf Way, Monrovia CA 91016. 818-359-8012.

Ampex PR 10 2 channel tube mic pers, vintage 1950s, with mic transformers, \$425. Bob, Clockwork Sound, 606 Mamaroneck Ave, Mamaroneck NY 10543. 914-381-0661.

API 512B mic pre/direct box, 48V, phantom power, 20 dB pad, mint cond, \$375; API HPR horizontal 500 rack, holds 2 units, self powered, excellent condition, \$375. Bob, Clockwork Sound, 606 Mamaroneck Ave, Mamaroneck NY 10543. 914-381-0661.

Sony ECM377 large dia cond mics (2) \$495 ea, RCA 77DX \$950, 44BX matched set of 3 \$3950, Shure SM5 \$325, SM7 \$295, AKG D12 \$195, Crown GLM200 lavalier like new \$125. W Gunn, POB 2902, Palm Springs CA 92263. 619-320-0728.

Want To Buy

Electro-Voice 309 Gray, shock mts in gd cond, for RE-20. H Cotterill, WZAD, POB 978137, Wurtsboro NY 12790. 914-888-0077.

77-DX's, 44-BX's, WE KU-3A's On-Air lights, red/g lights & audition lights. Top price paid. Fast response. Bill Bryant Mgmt, 2601 Hillsboro Rd, G12, Nashville TN 37212. 615-269-6131, FAX: 615-292-3434.

RCA 77DXs/44BXs ribbon, chrome/TV grey, good cond, BO. R Kaufman, Pams Productions, POB 462247, Garland TX 75046. 214-271-7625, after 3PM CDT.

RCA ribbons, AKG 451's, Neumann KM84's, EV 635A. W Gunn, POB 2902, Palm Springs CA 92263. 619-320-0728.

MISCELLANEOUS

Want To Sell

Teletypewriter receive/send, stored for years, condition unknown, on stand, \$165. WBXK, POB 398, York SC 29745.

ABC radio network printed matter from 50's - 80's, cue sheets, promo kits, program schedules, affiliate lists, also airchecks. H Cotterill, WZAD, POB 978137, Wurtsboro NY 12790. 914-888-0077.

AUDIO TRANSFORMERS

Table with columns: MODEL, IMPEDANCE, PWR, SEC, MAX PWR, PRICE. Includes a small image of a transformer.

USA & CANADA ORDERS (800) 634-3457 FAX ORDERS (800) 551-2749 SESCOM, INC. 2100 WARD DR. HENDERSON, NV 89015 USA

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Power Packs: 6V, 14AH Nicad battery in compact carrying case, \$40; Lithium: 12V, 15AH light weight! Great Power! Only \$12.50 pack. S&G Electronic, 215-474-7663.

Audio Transformer Magic advertisement featuring an image of a transformer and the Audisar logo.

Want To Buy

Jazz record collections, 10" LP/12" LP be-bop, swing, dixie, highest prices paid. B Rose, Program Recordings, 228 East 10th, NNY 10003. 212-674-3060.

Radio Transcriptions. Any year. Send description. Andy Lanset, 328 West 101 St, NYC, 10025. 212-662-6540.

MONITORS

Want To Sell

McMartin TBM 10050 FM rebroadcast receiver, new, for rebroadcasting, simulcasting, translators or monitoring of RF, modulation, or injection. ALSO: (used) AM/FM modulation monitors, Buy or Sell, Repair & Calibrate McMartin, Belar, Call Goodrich Ent Inc., 11435 Manderson St, Omaha, NE 68164. 402-493-1886 fax 402-493-6821.

Belar SCA-1 SCA monitor for 91 kHz, \$400. T Ingram, POB 73, Batesville MS 38606. 601-563-4664.

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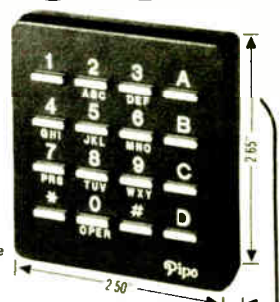
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Sony ST555ES stereo FM tuner, 8 presets, 2 antenna inputs, \$125. R Streicher, Pacific Audio-Visual, 545 Cloverleaf Way, Monrovia CA 91016. 818-359-8012.

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Gentner SPH-3A single line telephone interface system, refurbished, with manual, \$325. R Sumner, CAVU, 44632-112 Guilford Dr, Ashburn VA 22011. 703-450-2288.

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**SILVER LAKE AUDIO • 516-623-6114 • FAX: 516-377-4423**

Marti STL8 stereo STL with all combiners, good condition, \$2800. T Ingram, POB 73, Batesville MS 38606. 601-563-4664.

Marti RMC2-AXT(A), RMC2-AXT(10) needs repair, will supply new stepper, \$325. WBXK, POB 398, York SC 29745.

TRC-15 16 channel remote control switch; Gates FT-80 modulation monitor and stereo monitor. Jerry, WGER, 6165 Bay Rd, Saginaw MI 48604. 517-792-1063.

Moseley TRC-15 15 channel remote control system, good condition, \$500. S Cilorzo, San Diego Digital, 9853 Pacific Heights Blvd, San Diego CA 92121. 619-452-9000.

## SATELLITE EQUIPMENT

### Want To Sell

Channel Master 6128 consumer TV satellite receiver, \$75; Wegner 1601, satellite receiver mainframe, \$125; Houston Tracker, automatic satellite locator, \$150. M Ritland, WXCE, POB 1260, Amery WI 54001. 715-268-7185.

Scientific Atlanta SEDAT card, \$1000. J Leutzinger, KOCD, 3001 W 13th St, Joplin MO 64801. 417-624-1230.

SCPC demod/downconverter, frequency agile, low cost for new 501(c)3 public station. E Truax, KEOS 89.1, POB 78, College Stn TX 77841. 409-779-5367.



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## STATIONS

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FT 1 kW AM w/real estate, for listing of equip: R Hobbs, WMLR, 2009 Cromwell Dr, Nashville TN 37215. 615-373-2351.

LPTV permit, ready to build, Channel 26, Santa Barbara/Goleta CA. G Erway, 3450 SE Martinique, Stuart FL 34997. 407-283-6871.

Historic East TN town w/retirement village, only station in town, 1 kW, excel equip and offices, low overhead, w/or w/out real estate, will consider some financing. Mr Lowe, 615-458-9563 after 3 pm EDST.

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**Want To Buy**

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**TEST EQUIPMENT**

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**Hewlett Packard 200CD**, audio oscillator, \$100; Gen Rad 1309A, low distortion audio oscillator, \$100. G Guarino, Sorcerer Sound, 19 Mercer St, NY NY 10013. 212-925-1365.

**Potomac Instruments AA-51** audio analyzer with manual, very good cond, with all cables. \$1000. J Sands, KXTZ, 2300 Paseo del Prado #D-204, Las Vegas NV 89102. 702-595-2281.

**Hickok 800A** tube tester with 600A factory wiring, good condition, \$115; 400 misc audio and rectifier tubes, mostly new. WBXK, POB 398, York SC 29745.

**PAL SWR meter KW-1**, gd cond. F Fabre, WFVL, POB 201, Lajas PR 00667.

**Potomac FIM-21** field strength meter. A Sutton, POB 5, Union SC 29379. 803-427-2411.

**Sound Tech 1710A** distortion measurement, audio generators, distortion analyzers, RF gens, NTSC/PAL signal gens, RF bridges, scopes, vector scopes. C Porter, POB 489, Carthage IL 62321. 217-357-3128.

**Tektronix 475A** solid state portable, dual trace 250 MHz scope, like new cond, w/manual & probe, \$1050. R Sumner, CAVU, 44632-112 Guilford Dr, Ashburn VA 22011. 703-450-2288.

**Tone generator 25 Hz**, Downlink Systems TG 440. J Gelo, J&H Music, POB 1697, Marco Isl FL 33937. 813-642-6899.

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**Want To Sell**

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**FM - TRANSMITTERS**

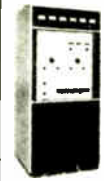
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**TRANSMITTERS - TV/FM/AM**, new and used. Tubes, xmtr parts. 305-757-9207.

**CSI T-1-F FM**, 1 kW, excel cond, spare parts kit, \$6100. WBXK, POB 398, York SC 29745.

**RCA 20Kw FM** without exciter, good cond, from metro market, \$16,000.00. Call 806-372-5130.

**Want To Buy**

**FM4 - 6000 W**, must be in good working order. B Lacy, WAVQ, 2025 N Hwy A1A, Indialantic, FL 32402. 407-773-1962.

**QEI FM amps and exciters**; AEL 15QE exciters; CSI 20E exciters; CSI EXG-20F; Versacount LA-150 amps and exciters. B Brown, S&C Comm, 27 Grant Dr, Laurel Springs NJ 08021. 609-232-1625.

**McMartin AM/FM xmtr**, any model, exciter or stereo modules. Goodrich Ent, 11435 Manderson, Omaha NE 68164. 402-493-1886.

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**Want To Sell**

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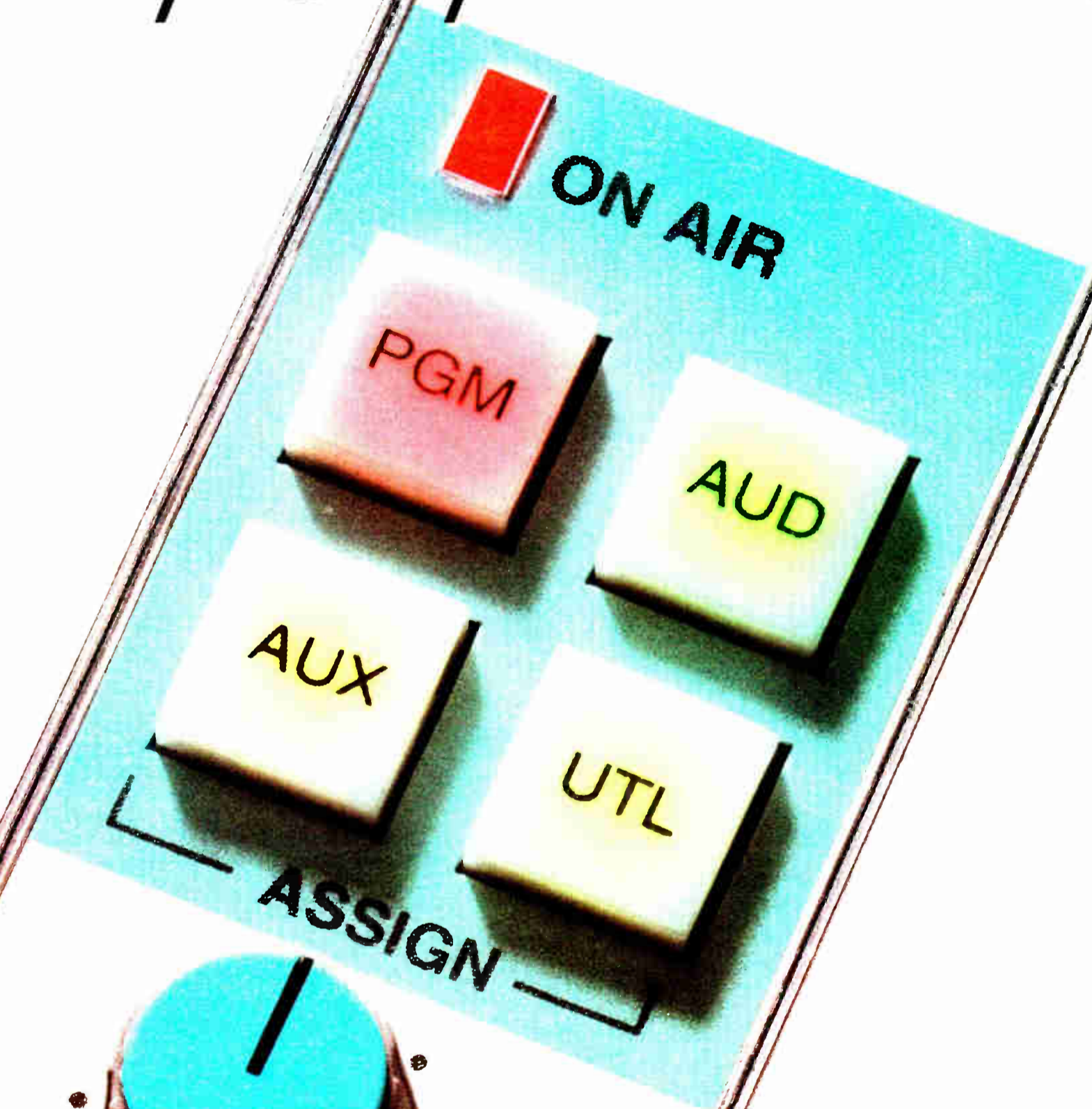
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