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**Paul Harvey Feted
During Radio-
Mercury Awards
See Page 40**

Radio World®

Vol 21, No 14

Radio's Best Read Newspaper

July 9, 1997

Tower Space Crisis Looms

by Bob Rusk

WASHINGTON Radio and television stations could soon find themselves without places to build new towers — unless the Federal Communications Commission takes quick action to brush aside some government regulations. Compounding the problem is the imminent switch to digital TV (DTV), which will require many stations to construct new towers.

That is the plea made in a petition filed with the FCC May 30 by the National

Association of Broadcasters and the Association for Maximum Service Television (MSTV). The petition asks that the FCC adopt a rule preempting certain state and local restrictions on the placement, construction and modification of broadcast transmission facilities.

Further, the petition points out that the FCC already has the power to overturn such rules. "The Supreme Court has stated that state and local regulations may be preempted not just by Congress, but also by a federal agency acting within the scope of

its congressional delegated authority," the petition states.

"The FCC should be sensitive to legitimate local interests," stated NAB President Edward O. Fritts. "But, in order to meet the DTV build-out schedule to which television broadcasters are dedicated — and to let all broadcasters improve their service — some local and state restrictions may need to be overridden. The FCC has the authority and we hope that this rule-making will go forward expeditiously."

In a letter to FCC Chairman Reed E. Hundt, which accompanied the petition, Fritts stressed the importance of these changes to radio stations.

"From a review of the FCC's data bases, it appears that hundreds of FM stations have placed their antennas on television transmission towers," Fritts wrote. "TV licensees and other tower owners have maximized the occupancy on their towers — to the very limits of 'wind loading' and other structural safety concerns. As a result, a substantial number of these radio stations may have to find different sites as the TV stations involved add DTV antennas to their tower structures."

MSTV President Margita White added, "Issues such as RF radiation, interference concerns, tower appearance and tower

SFX Removes EAS Units From Chain

by Bob Rusk

LITTLE ROCK, Ark. The ill-fated EAS test that forced hundreds of radio stations in several states to transmit dead air (RW, May 28) has prompted SFX Broadcasting to take immediate action to avoid such a mishap at their stations.

SFX Vice President of Operations and Director of Engineering Stephen McNamara sent a memo to SFX chief engineers that stated: "In light of recent EAS difficulties, and apparent lack of any known national emergency, it is my recommendation that your ENDECs (encoders/decoders) be temporarily taken out of the stations' program lines."

McNamara explained to RW that there was "a lot of pressure" from chief engineers to take action.

"They didn't want to run the risk of this happening in their markets. Broadcasters have a fiduciary responsibility to maintain program control, and not necessarily let somebody inadvertently take over the air chain. We've had some

See TOWER, page 12 ▶

See EAS, page 17 ▶

Radio works hand in hand with the Indy 500 to inform thousands; a tradition started in the early days of the race. See Page 11



AP/Wide World Photos

Monitor Radio Goes Dark After Sale Falls Through

by Sharon Rae

BOSTON Citing a lack of "sufficient station carriage commitment," World Times Inc. announced it would no longer continue with its initiative to purchase Monitor Radio.

Monitor Radio was put on the block April 14 by the Christian Science Church in an effort to concentrate its financial resources on other projects (RW, May 14).

World Times jumped at the chance to pick up the programming with a letter of intent, but not without contingencies, including the loyalty of affiliate stations for either the morning broadcast (Early Edition), mid-day broadcast (Mid-Day Edition) or any combination thereof. Other concerns included the viability of underwriting and the cohesion of the current news gathering staff.

"This was such an 11th-hour

situation," said Crocker Snow Jr., president of World Times and editor in chief of the World Paper.

"This all took place in very late days and the gamble was whether a lot of the key stations had already made alternative plans for other programs that would replace the Monitor Radio broadcast. Unfortunately, that's exactly what we found to be the case in a couple of very important situations — key markets such as Washington and Los Angeles."

Taps

Monitor Radio, the broadcast edition of The Christian Science Monitor newspaper, had produced programming for public radio since 1984 and was one of the largest suppliers of news and information programming to the industry.

Sue Schardt, manager of marketing and development for Monitor Radio,

See MONITOR, page 8 ▶

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NEWSWATCH

Senators Stall Klein Nomination

WASHINGTON The White House nomination of Joel Klein, currently acting assistant attorney general of the Department of Justice's Antitrust Division, to permanently fill that position seemed almost a shoo-in until recently.

On May 15, Sen. Conrad Burns, R-Mont., chairman of the Senate Commerce Committee's Subcommittee on Communications, wrote Klein to inform him he had requested that Senate Majority Leader Trent Lott, R-Miss., put a hold on the nomination. Burns cited a speech by Klein in which he stated that "the (Antitrust) Division would take the position

that the BOCs (Bell Operating Companies) should be forbidden to enter long distance under Section 271 (of the Telecommunications Act of 1996) until there is 'successful full-scale' entry into the local market," according to the senator's letter.

On June 11 Burns stated his concerns were allayed after meeting with Klein on the common carrier issue, and that he was lifting the hold on Klein's nomination. "His views regarding radio ownership in my view are in line with the intent of the telecommunications law," Burns stated.

Late in May, however, Sen. Ernest Hollings, D-S.C., also a member of the Commerce Committee, reinforced the

blocking of Klein's nomination. The senator was displeased with Klein's reading of the Telecom Act as it pertains to "congressional intent and entry into long distance and local service of both the Bells and BOCs," according to Hollings spokesman Maury Lane.

Since he assumed his current position in October 1996, Klein has overseen DOJ's investigation of a number of proposed radio industry mergers, including the Evergreen Media Corp. and Chancellor Media Corp. deal. Hollings' blocking of the nomination comes just when the industry had seemed to accept Klein's position that the market power of these conglomerates should be evaluated, as evidenced by his meeting with radio indus-

try heads through various National Association of Broadcasters-sponsored events.

Lane said that at press time it had not been determined when the Commerce Committee would vote on Klein's nomination.

Jackson Calls for Reform of FCC Minority Ownership Policy

WASHINGTON Rainbow-PUSH Coalition President Jesse Jackson met with outgoing Federal Communications Commission Chairman Reed E. Hundt last month about his concerns over what he perceives as a "dramatic decline in minority media and telecommunications ownership and employment opportunities."

Jackson asked the FCC to take three
See NEWSWATCH, page 3 ▶

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World Radio History

Index

FEATURES

MUSICAM EXPRESS Delivers by Alan R. Peterson	18
Europeans Focus on U.S. Market by Marguerite Clark	20
Yes, Virginia, It Sure Is Radio! by Frank Beacham	21
Hard-boiled, Classic Radio by Richard W. O'Donnell	22
Workbench: Stuff You Can't Do Without by John Bisset	27
Harris Looks at AM Modulation by Hilmer I. Swanson and John L. DeLay	28
Committee Keeps Tabs on Radio by D.C. Culbertson	30
Take Care in Your RF Planning by James Pinkham	31

SPECIAL FOCUS

Green Lights for Traffic, Billing by W. C. Alexander	32
Traffic Is a Breeze With CBSI Classic by Dena P. Karaszi	34
Columbine: KIIS of a Decade by Chris Peaslee	35
Automated Logging, No Hassles by Larry Wilkins	37
Stations Prepare for Year 2000 by James Careless	38

RUNNING RADIO

Harvey: 'I Love Advertising!'	40
A Beautiful Opportunity to Resurrect a Format by Lee Harris	40
Long-Time DJ Casts Net Afar by Dee McVicker	42
Scintillating Specialty Shows by Mark Lapidus	44
Ensure Long-term Survival by Sue Jones	45
Zamboni Road Trip Makes 'Ripleys' by Sharon Rae	45
Community 'Reel' Awards Inspire by Sharon Rae	46
Reach for This Handy Phrase Book by Sue Jones	47
Adieu A-Go-Go From the Cyber-Mutt by Alan Haber	48

STUDIO SESSIONS

Yamaha 03D: Another Success by Ty Ford	49
Fast EdDit: Power for Old PCs by Alan R. Peterson	50
Sony DAT in a 10-Gallon Hat by Chris O'Brien	53
A Romp Through the 'Attic Tapes' by Alan R. Peterson	54
Make Client's Name Part of Production by Gowan Gray	55

INTERNATIONAL UPDATE

CSA to Reassign FM Frequencies

by Diane Seligsohn

PARIS The French radio landscape is poised for major changes with the approval of a new law regulating the audiovisual media by the French parliament this spring.

As a result of the law — and months of discussions among broadcasters, politicians and the Conseil Supérieur de l'Audiovisuel (CSA), the French broadcast regulator — 15 years of chaos on the FM band is expected to end this year, with frequencies being reassigned in a more rational and equitable way.

Supply and demand

The problem thus far is that the demand for FM frequencies far outweighs the supply. The FM band cannot be extended, and the 6,100 channels that exist in France have long been occupied.

Public service broadcaster Radio France possesses half of these frequencies. The rest are divided among community radio stations, private local stations and the commercial networks.

When the French FM airwaves were liberalized in 1981 under President François Mitterrand, claims to this uncharted territory were quickly staked out, often without official approval.

So long as FM radio remained on the fringe, the authorities saw no reason to interfere. But over the years, FM has attracted the lion's share of the audience, first among young people and then general audiences, making previously dominant long-wave services obsolete.

The older private general-interest sta-

tions, RTL, Europe 1 and Radio Monte Carlo (RMC) were taken by surprise. They found themselves in direct competition for audience and advertising with new commercial national music networks such as NRJ, Skyrock, RFM, Fun Radio and Nostalgie, all of which developed from small, inconsequential local stations.

Clarifying the situation

To make matters worse for the older stations, legislation prevented them from developing by buying local frequencies, confining them to their traditional broadcast zones: the north for RTL and Europe 1 and the south for RMC.

Today, NRJ, the second most listened to station after RTL, has 230 frequencies and can be heard throughout France, while RTL has only 130 frequencies, limiting its reach to certain parts of the country.

Shareholders in the private general-interest stations reacted by investing in new FM music networks such as Europe 2 or by buying out their competitors, increasing the concentration of ownership.

The situation was exacerbated by the 1994 Carignon Act, allowing large media groups to expand their national FM networks. In order to do so, more frequencies were needed. Since they were all in use, the only solution was to take over already existing stations.

Legally, however, local broadcasters only lease their frequencies, and they are not authorized to sell them. As a result, under-the-table deals were made, with many local stations officially belonging to the large networks.

The new audiovisual law strengthens

the hand of the CSA and facilitates the procedures for assigning FM frequencies. The regulatory body will publish a call for candidates and establish a deadline by which applications must be submitted.

A committee of experts, including broadcasters, will make recommendations on the management of frequencies to the regulatory body.

Expected changes

The law stipulates that the CSA must take into consideration the "variety of services offered to the public and the need to avoid abuses by those in a dominant position, as well as practices that hamper free competition."

Before any new assignment of frequencies, an audit is to be conducted by the CSA, in collaboration with broadcasters, to determine the possibilities of optimizing spectrum use. According to experts, somewhere between 5 percent and 20 percent of FM frequencies in France are currently underutilized.

The result, according to the CSA, should be more stations for everybody. Europe 1 and RTL are expected to receive frequencies in additional cities, as are the private broadcasters RFM, Montmartre FM, Rire et Chansons, BFM and Radio Classique.

The audit may even lead to a complete reorganization of the FM band, where a

particular broadcaster would have a single frequency all over the country. This would help listeners of their favorite station and probably would result in higher ratings for the local stations. It could also help pave the way for DAB.

One area of conflict remains, however. The commercial stations take issue with the plans of Radio France to use its priority access to frequencies in launching a new youth-oriented station for 15- to 25-year-olds. They question whether such a publicly financed station is truly in the national interest and suggest that more airtime could be devoted to youth on the already existing public channels.

Pointing to the declining audiences of Radio France's two leading stations, general-interest France Inter and all-news France Info, is this, the broadcasters ask, the right time to start up yet another public station?

Meanwhile, feeling too hemmed-in on the French FM band, a number of private radio networks are seizing opportunities to develop and conquer new advertising markets in foreign countries.

Nostalgie, for example, is seeking minority shares in local radio stations to which it can provide services such as ready-to-broadcast programs and professional training.

Already present in Central and Eastern Europe and West Africa, Nostalgie has plans to expand into Canada, Argentina, Hong Kong and Singapore in the coming years.

■ ■ ■

Diane Seligsohn, a journalist for Radio France Internationale (RFI) English Service, reports on the industry for RW from Paris.

NEWSWATCH

► NEWSWATCH, continued from page 2 immediate steps. First, he called for a moratorium on the auction of telecommunications licenses while the commission revises its minority ownership policies. Second, he urged the commission to commence the "Adarand study," which, based on a 1995 Supreme Court case, would require the commission to compile research to demonstrate the effectiveness of its minority ownership policies.

Finally, he asked for reform of the FCC EEO (equal employment opportunity) policies, including repealing "the rulemaking order proposing the exemption from EEO enforcement of most of the radio industry." In a NPRM released Feb. 16 the commission stated: "We are concerned ... that our EEO requirements may unnecessarily burden broadcasters, particularly licensees of smaller stations and other distinctly situated broadcasters, and therefore propose changes to our Rule and policies to provide relief to such broadcasters." Action on this NPRM is still pending.

Hundt's official statement on how the commission would treat Jackson's suggestions: "I look forward to working with Reverend Jackson on our common goals. I consider it an honor to have him involved in our debates."

Jackson recently made headlines when he asked the FCC to hold up the

sale of Viacom's four Washington stations to Evergreen Media Corp., pending a review of whether Viacom violated an agreement it allegedly made to seek minority buyers for the stations.

Buzenberg Goes From NPR to MPR

ST. PAUL, Minn. Bill Buzenberg, former vice president for news and information at National Public Radio, was named senior director of news and information at Minnesota Public Radio.

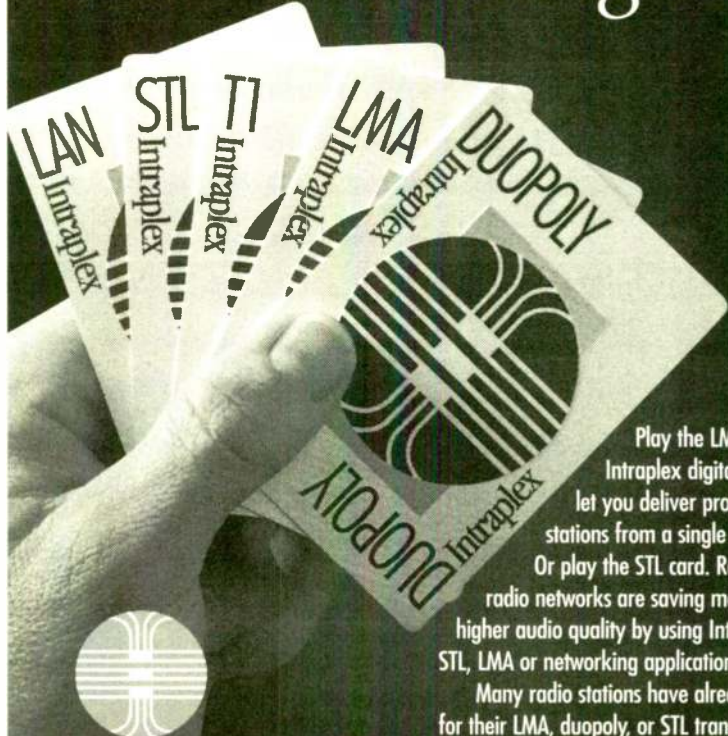
Buzenberg resigned from NPR in January amid speculation that he was forced out over disagreements with NPR President Delano Lewis.

NPR has tentatively hired Jeffrey Dvorkin, formerly of the Canadian Broadcasting Corp., to replace Buzenberg; the board of directors is scheduled to vote on Dvorkin at its meeting July 23-24.

MPR President Bill Kling said: "Bill brings with him exemplary credentials, strong convictions and a solid commitment to thoughtful, analytical news coverage that is the essence of MPR's broadcasting mission."

Buzenberg was scheduled to join MPR as a consultant in July and will come on board full-time in January. In the meantime, he is completing a book on former CBS News President Richard Salant.

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Fire Ants Die, Radio Thrives

If you had a tough time renting a tuxedo or evening dress a couple of weeks back, blame it on the Radio-Mercury Awards.

Radio's creative community was treated to a glittering bash at the Waldorf-Astoria. These awards have hit the big time. More than 1,000 people showed up to honor the best commercials of the year as the Radio Creative Fund handed out \$225,000 in cash prizes. The judges had plenty to choose from; there were 980 entries and 45 finalists.

Radio Savant Productions of Los Angeles took the \$100,000 Radio-Mercury Gold Award for best overall commercial for its spot, "ORTHO Antstop Fire Ant Killer." It was a good couple of weeks for them; the same spot was honored in May as best commercial of the year in all media at the Andy Awards.



April Winchell and Mick Kuisel of Radio Savant

★ ★ ★

So what makes a radio spot work? Decide for yourself. Here is the text of the winning spot, written by April Winchell and Mick Kuisel, and produced by Winchell:

(Male voice, no music bed)

Fire ants are not lovable.

People do not want fire ant plush toys.

They aren't cuddly, they don't do little tricks. They just bite you and leave red stinging welts that make you want to cry.

That's why they have to die. And they have to die right now. You don't want them to have a long, lingering illness, you want death.

A quick, excruciating, see-you-in-hell kind of death.

You don't want to lug a bag of

chemicals and a garden hose around the yard; it takes too long.

And baits can take up to a week.

No, my friend, what you want is Antstop Orthene Fire Ant Killer, from ORTHO.

You put two teaspoons of Antstop around the mound, and you're done. You don't even water it in.

The scout ants bring it back into the mound, and — this is the really good

part — everybody dies. Even the queen. It's that fast.

And that's good. Because killing fire ants shouldn't be a full-time job.

Even if it is pretty fun.

Antstop Orthene Fire Ant Killer, from ORTHO. Kick Fire Ant butt.

For best results, always follow label instructions.

★ ★ ★

Congratulations as well to the rest of the winners. Gold winners took home \$20,000 prizes; silver awards earned \$5,000. The winners:

Humor

Gold: "Family Dinner" for Little Caesar's, by Cliff Freeman & Partners, N.Y.

Silver: "Bookstore" for Anheuser



Busch/Bud Light, by DDB Needham, N.Y.

Music and Sound Design

Gold (tie): "Hit the Target" for Target Stores, by Martin Williams, Minneapolis, and "Hidden Message/Moving" for Twentieth Television/Gordon Elliott Show, by World Wide Wadio, Hollywood
Silver: "Beautiful Okinawa" for Cherry Coke, by Cliff Freeman & Partners, N.Y.

Radio Station Produced

Gold: "Your Life Is Not..." for The Hudson Valley Shakespeare Festival, by WHUD(FM), Peekskill, N.Y.

Silver: "Three Bears" for Gardner Mattress Makers of Salem, by WEZE(AM), Boston



Cousin Brucie Morrow catches up with ABC's Tom Joyner.

Hispanic

Gold: "Perrita" for San Juan Star, by Badillo Nazca S&S, San Juan, P.R.

Silver: "Tango" for Procter & Gamble,

by Bromley, Aguilar & Associates, San Antonio, Texas

Non-Humor

Gold: "Don't Drink Our IPA" for Full Sail Brewing, by Radioland, Portland, Ore.

Silver: "Bud" for Community Hospitals, Indianapolis, by TraverRohrback, Kalamazoo, Mich.

PSA: "Wadia Jamal," Stop the Violence/Increase the Peace, by WUSL(FM), Philadelphia

In addition, 16-year-old Sara N. Napoli of New Jersey received the Dick Clark Fellowship for her PSA "Drunk Driving." She is a high school sophomore who works as an intern at college radio station WBZC(FM) at Burlington County College. The award is presented in cooperation with the National Association of College Broadcasters.

RW Managing Editor Paul J. McLane was on hand at the awards. He tells me that, among the many highlights of the evening, perhaps the finest was the presentation of the first Lifetime Achievement Award to newscaster and commentator Paul Harvey for his "extraordinary contributions to radio as an advertising medium." Harvey's acceptance remarks, as usual, went right to the heart of the moment. You can read his speech on page 40. But you'll have to

add his famous inflection yourself.

The ad industry's richest awards show is funded by 60 radio broadcasting companies to help generate better radio advertising. Mel Karmazin, the president of the CBS Station Group and the event chairman, was correct

when he said, "The Radio-Mercury Awards have played a key role in improving the quality of radio commercials."

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Bergen County, Jukebox Radio

Dear RW,

A correction and comment about your article "FCC Rocks Jukebox Radio" (June 11).

The caption under the picture, "The Fort Lee Transmitter Site," is incorrect. That is actually a picture of the building the second floor of which houses the Dumont studios of Jukebox Radio.

I, along with Gerry Turro, was a founder of Jukebox Radio, the original intent of which was to serve the older, affluent audience in Bergen County, N.J., the largest county in the country without its own FM. We formed the non-profit Bergen County Community Broadcasters Foundation and purchased a 10-watt non-commercial license from Ramapo/Indian Hills High School in Franklin Lakes, N.J., believing that by utilizing Turro's transla-

tor in Fort Lee, N.J., about 18 miles away, we could garner enough revenue from underwriting to operate the station and pay ourselves livable salaries. It soon became apparent, however, that it would be almost if not totally impossible to pick the original WJUX signal off the air at the Fort Lee translator site.

I left the station after less than a year because I did not want to be party to the direction I believed the station, under Turro's aegis, was taking. Now Turro and his partner Wes Weiss are facing possible license revocation of the new, commercial WJUX in Monticello, N.Y., as well as Turro's translators, and \$1 million in fines, for allegedly participating in deception and the commission of infractions of FCC rules.

The other loser in this battle, however, is the loyal, committed Bergen County listener to Jukebox Radio. Perhaps WVNJ(AM), Oakland, N.J., can fill the void, but they have problems of their own in the form of reception difficulties.

Your article states, "The FCC will have to decide if its rules are really in the public interest or simply serving to protect the interests of established broadcasters." If the FCC really wants to do the right thing, it will figure out a way to allow Bergen County to be served by its own FM, albeit sans present management. The listener should not be made to pay for the machinations of a few individuals.

Lee Martin

Radio Netherlands, North America
Livingston, N.J.

Protect the Golden Egg

Dear RW,

Thanks for putting a voice to my thoughts about the state of radio today ("We Can Do Better," April 16). In the rush to cut expenses and "consolidate," I fear we broadcasters have cut too much of our public service.

Several radio stations in a particular midwestern market I know are co-owned/co-located with a TV station. At 5 p.m., they just patch the audio from the TV news onto the radio station! Can anyone really believe the public wants to hear TV news instead of news written specifically for the ear? Come to think of it, with today's media-savvy consumers, do we really believe a satellite automation format is fooling anyone, even with local liners played over song endings?

I understand not everyone can have a full-time news crew or live jock. But before we look at automation and TV audio as our salvation, let's remember the fable about the goose that laid the golden egg. If we drive away our audience by not adequately meeting their needs, how will we attract advertising dollars tomorrow? Let's not kill our goose in the search for more golden eggs.

Mitch Barber
Elkhart, Ind.

Low Power: Akin to Public Access

Dear RW,

I agree with almost every word of Kent Waterman's Guest Commentary ("Peanuts

Who Speaks for AM Stations?

Any time a community evolves, there is sure to be unrest, dissatisfaction, even a certain degree of outright rebellion. This is good. It conveys the strength of that community and the passion felt for it by its people.

The radio industry is no different. In the last few years we have witnessed tremendous downward pressures on the ownership and operating structures of stations — the effects of technological improvements and efficiencies of scale that have hammered smaller stations and groups.

It is no surprise, then, that we are seeing a swell of grassroots activity in radio.

Earlier this year, some AM station licensees said "enough." They decided to form a new broadcasting association. Its goals: to push the Federal Communications Commission to redefine radio markets, allow AM stations to simulcast on FM translators and keep foreign entities out of U.S. broadcast markets.

The American Community AM Broadcasters Association sprang, in part, from a Feb. 19 issue of RW. We published a story about a request by Kentucky station WMTA(AM) for a Justice Department investigation. The story generated a "flood" of response, according to WMTA General Manager Bryan Smeathers, who "related their concerns over the impact on small-market operators of the rapid consolidation resulting from the Telecom Act of '96."

The common thread in that overwhelming response, said Smeathers, was a desire for a new national association for AM broadcasters only. Such an organization is necessary, the station managers said, to fill a void left by the National Association of Broadcasters and most state associations, whose primary concentration, the organizers feel, is on "big stations."

To date, ACAMBA is 103 stations strong. Whether it can improve on the record of the NAB in advancing the goals of AM stations remains to be seen.

That the group banded together at all, however, is a sign of a healthy radio business. In this, we see similarities to the recent decision by some anonymous radio equipment manufacturers to form REMAA, an association to compete with or pressure the NAB to address their concerns. The development of new industry groups is good for radio. They stir debate, encourage participation and press the entrenched bureaucracies to improve.

Perhaps ACAMBA can work with NAB in an advisory capacity, thus reaping the advantages of what the Washington Post dubbed "the perfect lobbying machine," without wasting energy trying to "reinvent the wheel." Any dialog can only help further AM aims.

In any case, ACAMBA deserves to be watched and supported by other AM stations. It, at least, had the nerve to go public.

— RW

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Next Issue of Radio World
July 23, 1997

or Pirates. Make 'em Legal." May 18) about small and unlicensed broadcasters. Fifty years ago, I also had a phonograph-transmitter, which could be received in about a one-mile radius from my house (as measured by car radio). Because I lived way out in the country, my unintended audience may have been at most 20 or 30 people. Nobody complained, and no FCC agent came to shut me down.

It is hard to imagine that a 100-watt station is anything for today's radio giants to worry about, until I realize that the big guys are simply driven by greed. If they lose even one listener to the little station, that is potentially one less dollar they will make somewhere down the line. This explains why the high-power guys strong-arm the NAB and the FCC to outlaw their low-power competition.

The part of Waterman's article with which I don't agree is licensing the low power stations. Don't license them. Remove any present laws that prohibit them. Just make some simple rules that low-power stations must follow, and then leave them alone as long as they follow the rules.

I think low-power stations are analogous to the free public access channel required to be on cable TV networks — something the NAB/FCC should mandate and encourage, not restrict and prohibit.

C.F. Nye
Cottonwood, Ariz.

FM-Talk, FM-News

Dear RW,

Great article on how an AM format can work on FM ("FM-Talk, FM-News: Why Not?" by Mark Lapidus, April 30).

I purchased WTIM(AM) Taylorville,

Ill., in December 1992. It was a stand-alone AM with 1,000 watts, two-tower directional daytime, and 63 red-hot watts two-tower directional at night.

I barely cover the city of Taylorville at night.

I filed for an FM to combo with WTIM, and after buying out two competing applicants, WMKR(FM) went on the air at 94.3 MHz on July 12, 1996.

But I wanted to improve WTIM's signal. Further nighttime power was out of the question. So, what to do? We filed for yet another FM frequency, got it dropped in, and had only one competing applicant apply — the folks that owned the FM 18 miles down the road in Pana, Ill., the same county.

Bottom line: We had to buy their station in order to get them to dismiss their application for the second FM in Taylorville, as well as a new FM I dropped in to serve another nearby town.

We took ownership of their Pana station May 1, and expect to have what will become WTIM(FM) on the air at 97.3 by Sept. 1, as well as the other new FM we're building.

Yes, I'm moving WTIM's news/talk format from AM to FM. My contention is: In small markets, it doesn't matter how you deliver it, as long as you have a product people want to tune in for!

We plan to sign WTIM(AM) off and turn the license back to the commission, unless one of the non-comm religious groups want to turn it into a satelator.

Again, bottom line, they'll tune in if you have what people want to listen to!

Randal J. Miller
Miller Media Group
Taylorville, Ill.

GUEST COMMENTARY

REMAA Didn't Do Its Homework

In our May 28 issue, RW reported that a group of equipment makers has formed REMAA, the Radio Equipment Manufacturers Association of America, to express displeasure with policies of the National Association of Broadcasters. Members of REMAA complain that the NAB treats radio exhibitors at its annual conventions unfairly.

An executive with one manufacturer, speaking for REMAA, said the NAB's Exhibitor Advisory Committee, made up of members of the manufacturing community, has been "giving nothing more than good lip service" to radio companies, and that the members of the committee have not paid sufficient attention

NAB show, and I did my best to voice my concerns both to NAB Senior Vice President of Conventions and Expositions Haidee Calore, other committee members and the NAB representative for radio. I have done so since being elected three years ago.

During the NAB show, I visited several radio vendors to get their opinions on the show. Needless to say, they were not good. Most of them complained of the same things you mentioned to Radio World. During our EAC meeting in Las Vegas, I conveyed these comments to Haidee and the committee. I did not seem to make any headway. The members of the committee who belong to enormous vendors

the remainder of the show, I was assured by Haidee and other NAB staff members that I had it all wrong, and that they did care about radio, etc. I believe they try, but I understand the dynamics of why things are the way they are. That doesn't make them right, but it makes them awfully hard to change single-handedly. To directly dispute Haidee's comments, I did, along with another person, make the suggestion of isolating just radio/audio to the Sands. The reply was, "It is something to be considered," but the floor plan was already done for 1998. Not a possibility.

After reading your remarks, I was highly annoyed that you assumed the EAC Committee did little more than provide lip service. Get your facts, then give your comments.

It would be nice if some of the loudest complainers would attend EAC meetings, fly to meetings not at conventions, and sit through conference-call meetings before making erroneous comments about how the committee operates. I don't even want to hear the excuse that "We didn't know we could participate," or "We didn't know who our representative was." Information on the committee and its members has been published in virtually every NAB newsletter as well as all exhibit guides.

I must give credit where credit is due: The NAB has worked hard to give the Exhibitor Advisory Committee every chance of success and quality of input.

No input

It seems particularly strange that, as one of the only two radio reps on the committee, I have never received a call or letter from a disgruntled exhibitor asking for my representation or help. I'm just supposed to know the problems, and complain to NAB alone or with one other rep.

I do welcome the "wake-up call" your voice will no doubt provide. But please, take it easy on the people in the background. Things are not good for radio with the show, but they are a lot better than they were before Haidee took over. At least they give us a voice now. We just need more voices.

I think a more sound approach and presentation to the NAB staff members is a more reasonable way to go. Radio World would have been a much better forum to present something like, "We have discussed this with the NAB staff and the EAC committee; here is where we are."

I will be available to assist you and your members in your efforts, and of course to represent your concerns as effectively as I possibly can.

Debbie Hamby is sales manager of software supplier Datacount Inc. in Opelika, Ala., and radio/audio representative to the NAB Exhibitor Advisory Committee. Reach her at (334) 749-5641.

RW welcomes other viewpoints. Mail comments to: Radio World, Readers Forum, P.O. Box 1214, Falls Church, VA 22041, or send e-mail to 74103.2435@compuserve.com. Please include your phone number.

It would be nice if some of the loudest complainers would attend EAC meetings, fly to meetings not at conventions, and sit through conference-call meetings before making erroneous comments about how the committee operates.

to radio/audio needs. The spokesman declined to be identified.

Debbie Hamby of software supplier Datacount Inc. is a radio/audio representative on the NAB Exhibitor Advisory Committee. Here she responds to the comments by the REMAA executive.

Dear Spokesman,

I understand your position on the matter of the NAB show, floor space and their position or "perceived" position on radio. But you have more than assumed you know what the Exhibitor Advisory Committee has tried to accomplish for radio.

I am a representative for small audio and radio. I, too, am upset about the

seem to be concerned only with GES and electrical contractor services, and how difficult it was to get their phone connected.

Can't go it alone

During this meeting, I told these vendors that I know these types of issues are important, but we radio vendors can't worry about phones. We are just worried about getting floor space or getting separated from our main attraction — the radio/audio hall. We can't afford to be segmented — we are the little guys! I made my comment and we moved to the next subject.

At the end of the meeting and for

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World Radio History

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Tribune and Emmis contract:

Tribune Co. signed a contract with Emmis Broadcasting Corp. to manage WQCD(FM) in New York. The transaction becomes effective upon regulatory appeal.

Under the agreement, Emmis Broadcasting will manage the station for up to three years, after which Emmis has the right to purchase the station for an undisclosed amount. During the management contract, Tribune will seek to identify a suitable property to be acquired in an exchange transaction.

Tribune owns four other stations: WGN(AM) in Chicago, and KOSI(FM), KEZW(AM) and KKHK(FM) in Denver.

Along with WQHT(FM) and WRKS-AM-FM, Emmis owns and operates KPWR(FM) in Los Angeles, WKQX(FM) in Chicago; KSHE(FM) and WALC(FM) and WKKX in St. Louis, and WENS(FM), WNAP-FM and WIBC(AM) in Indianapolis.

Evergreen first quarter results:

Evergreen Media Corp. announced first quarter revenues and broadcast cash flow for the period ended March 31.

For the three months, consolidated net revenues increased 53.4 percent to \$81.9 million, from \$53.4 million last year. Broadcast cash flow grew to \$28.9 million in the first quarter of 1997, an 81.3 percent increase over the corresponding period of 1996.

Evergreen reported a first quarter net loss attributable to common stockholders of \$6 million, or \$0.14 per share, compared with \$15.5 million, or \$0.55 per share for the 1996 period.

Douglas Broadcasting Adds Three Stations:

The recent acquisition of three AM radio stations by Douglas Broadcasting Inc./Personal Achievement Radio networks has boosted the networks' combined total number of stations to 18.

KDFC(AM), WBZS(AM) and WZHF(AM) were purchased from Evergreen Media Corp. KDFC is changing its children's programming and WBZS will change its traditional talk format to the Personal Achievement Radio format, which focuses on topics such as business and health. WZHF will change from health and fitness talk to Douglas Broadcasting's AsiaOne Network ethnic format.

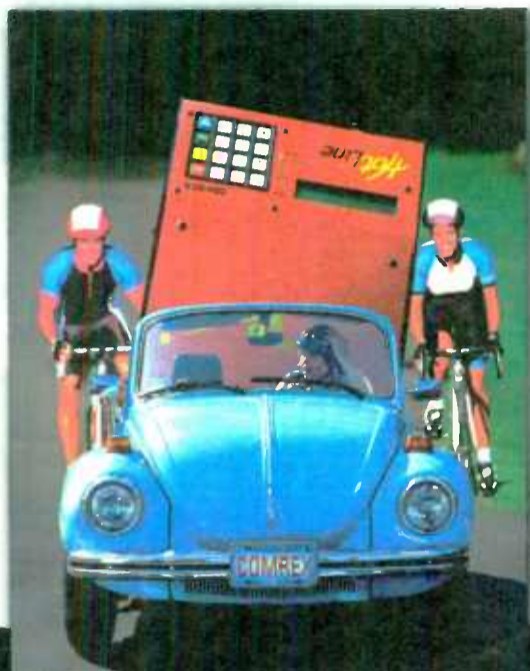
Allied Radio Partners to Represent New York Yankees:

Allied Radio Partners is now the exclusive representative for New York Yankees radio broadcasts on WABC(AM) in New York and the Yankees Radio Network for in-game spot avails. Allied has been retained to represent the Yankees radio broadcasts by Madison Square Garden Network, the team's radio rights holders.

Regular season Yankees broadcasts on WABC will continue through the end of September. John Sterling and Michael Kay provide the play-by-play.

September is **Remote** Month and Comrex is Celebrating
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Globo Radio Network uses the
HotLine™ to cover the Tour de France



J. Claudio Barbedo, Operations Director for the Globo Radio Network in Brazil, used HotLines™ to cover the Tour de France bike race from Lyon, France, back to Globo studios in Rio de Janeiro. "I have never had a remote sound so good," he reported. "They sound gorgeous!" Barbedo said that people from other stations were swarming around his broadcast booth to find out how Globo was achieving their great sound.

WLW and Reds' Network broadcast
game on the HotLine™

Doug Walker, engineer for Jacor Cincinnati, wasn't planning to broadcast this important game on a plain telephone line. But when the telephone company let him down and didn't get his ISDN line installed in time, he sure was glad to have the HotLine™. "The HotLine™ enabled us to save our tails when the phone company didn't complete the ISDN order," said Walker.



the phone company didn't complete the ISDN order," said Walker.

Princess Cruise's newest
"Love Boat" introduced
via the HotLine™

When multiple radio stations converged in Florida, there were not enough ISDN lines to go around. However, listeners of WFNX in Boston and WRQX in Washington, DC, could not have known that the program had been relegated to a plain phone line. Marc Gordon, Chief Engineer of WFNX, remarked: "It was hard to believe audio this good was coming over a dial-up line." WRQX Engineer Dave Sproul agreed: "It was supremely easy! We just dialed (the HotLine™) and we were connected. There was no fiddling to be done."



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Monitor Radio Goes Silent

► MONITOR, continued from page 1
said she was very disappointed. "It's been quite a ride the last few months for all of us. It was a 13-year investment ...

will be closed," said Schardt. "We are not still expecting to sell Monitor Radio."

Snow agreed that timing was the killer. "We were very excited about the venture

to end on June 27th, and they didn't see any light at the end of the tunnel and therefore had made, contractually and otherwise, arrangements for other broadcasts to replace it."

World Times had intended to initially provide public radio stations with an in-depth news magazine that closely followed Monitor Radio's current format

a lot of time, money and research put into the production of this programming. The clock just worked against us."

At press time Monitor Radio was slated to go dark on June 27. "The operation

... but we had to be realistic about it," he said. "It looked like we were swimming against the tide at this late date. It seemed as if some of the key stations were assuming that Monitor Radio was going

The best-laid plans ...

World Times had intended to initially provide public radio stations with an in-depth news magazine that closely followed Monitor Radio's current format ("with a little spice to the current mix," said Snow), and to utilize the core editorial staff of Monitor Radio. There were also negotiations surrounding a possible collaboration with WBUR(FM) in Boston.

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MONITOR



RADIO

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Monitor Radio plans to offer up to six months severance pay to staff members. "There are about 75 staff members here in Boston and other dedicated staff people around the globe, including our Washington Bureau, who will be out of work," said Schardt.

Snow called the situation "bittersweet."

"It's just very regretful for the journalists involved and all the others," he said. "I hate to see a quality broadcast dissolve."

"We're very proud of the 13 years that we did," said Schardt. "We provided a very valuable resource and were integral to the evolution of public radio news and information programming."

David Cook, editor of The Christian Science Monitor newspaper and Monitor Radio, voiced similar sentiments. "We appreciate all the stations who worked with us on the effort to sell Monitor Radio ... their help speaks to the quality of the programming our talented staff has produced ... and the goodwill the Monitor has won in the public radio system."

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World Radio History

Indy Network Covers Brickyard

Indy Motor Speedway Radio Net Crew Comes Together for Annual Race

by James Careless

INDIANAPOLIS Radio and the Indianapolis 500 go back a long way — 75 years, to be exact, when the few people in Indianapolis who actually owned receivers were able to get play-by-play from two now-defunct stations, WOH and WLK.

Since those early days the Indy 500 has been covered by a number of stations and networks, including NBC and Mutual. But it wasn't until 1952 that the present broadcast unit, the Indianapolis Motor Speedway Radio Network, came into being. Anchored by local station WIBC(AM), a group headed by Gil Berry, Bill Dean and Sid Collins, IMS took over the coverage from Mutual, which had lost its main broadcast sponsor after substantially raising its advertising rates. This group operated the radio network until 1972, when the Speedway brought coverage "in house."

Today IMS is still responsible for presenting the Indy 500 to the world radio audience. In the United States the network feeds broadcasts to about 600 affiliates. IMS also provides race coverage to the Armed Forces Radio and Television Network. For civilians worldwide, the feed is also available on U.S. shortwave station WHRI, and, on the Internet, at <http://www.theautochannel.com>

The coverage

Although this year's race wasn't scheduled until May 24, actual radio broadcasts from the "Brickyard" began when the track opened on May 3.

"We provided two-minute recorded reports that were updated three times a day," said Tom Allebrandi, technical director for IMS. "These were stored on a digital recorder and played back continuously. Stations could then access these through our '1-800' lines, dubbing it to their own systems for airing."

As race day approached, IMS began offering a weekly half-hour evening call-in program called "Indy Live." Unlike the previews, these reports were fed from the dining room of the Brickyard Crossing motel by ISDN directly to satellite uplinks, for distribution over Galaxy IV and Satcom C5. "We use these satellites because they're both popular with broadcasters, especially small radio stations who may only have one dish each, and a fixed dish at that," said Allebrandi. "For those without satellite dishes, we also offer our broadcasts over a 1-800 dial-up number."

In order to get the maximum capacity out of a single ISDN line, IMSRN used one "B" channel of the ISDN line to feed a digital transponder on Satcom C5. This signal was then downlinked and re-uplinked on an analog C5 transponder by Learfield Communications in Jefferson City, Mo. The second "B" channel of the ISDN line was then used for the feed to Galaxy IV.

On, the four days of qualifications for

the race, IMSRN offered two half-hour live shows. "Then between those programs, we do three-minute reports every 15 minutes past the hour."

Coverage began in earnest on May 21, when the first qualifying heats were being run. However, it wasn't until race day itself



Early Radio Coverage of the Indianapolis 500

— May 24 — that IMS' full production team got into action. "That's the day we cover the race live and in living purple," said Allebrandi, "starting at 10 a.m., and going to 2:30, depending on how long the Indy 500 actually runs." However, rain delays kept IMS staff twiddling their thumbs until May 27, when the weather let up enough to let the race proceed.

The team

IMSRN's actual production layout is impressive. At its heart is the broadcast booth. It's located five stories up in a tower at trackside. On-air this year again was anchorman Bob Jenkins, well-known for his work at ESPN. He was backed by "driver expert" and three-time Indy winner Johnny Rutherford, statistician Howdy Bell and historian Donald Davidson.

"All of the announcers here use Sennheiser headsets, which connect to Clearcom AB-100 boxes," explained Allebrandi. "These units allow them to use the same headset mic both for on-air and intercom functions, and gives them both an off-air feed and an intercom link to the director."

Meanwhile, this team was supplemented by eight other announcers — four of them located at each of the track's four turns, and the other four roving in the garage and pit areas. The corner announcers were "hard-wired" to the studio, while the pit crews use Sony WR-820 wireless microphones. The pit reporters received program return and director IFB via a UHF radio link.

Making sure that these wireless feeds get through is a major headache for Allebrandi. That's because the Indy 500 race track "is the RF sewer of the world," he said. Put plainly, IMSRN, ABC-TV and Telx Entertainment use over 40 frequencies for wireless mics and RF cameras. "Then

you've got 35 race teams, all of whom are using two-way radios. Most of these are repeater-based, so you've got another 66 frequencies to contend with. And then there's fire, police, track safety, track management, ambulance crews and so on and so on."

To prevent cross-talk and interference, all RF frequencies are pre-assigned before race day. But, of course, it just takes a few outsiders walking in with their own mobile radios to foul things up completely. This

how vulnerable IMS' Indy 500 coverage is to wireless interference, especially when fans such as "Joe Blow and his buddy from the plumbing store," as Allebrandi called them, "can come to the track and decide they can keep in touch with each other using the shop's Handie-Talkies."

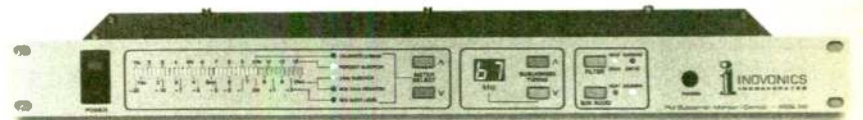
All of the feeds — whether from the studio, the corners, or the pits — eventually end up in the studio's 16-channel Ward-Beck mixing board. All other audio — music, prerecorded interviews, stings — come from a series of 360 Systems Digicart-II hard-disk recorders, which were linked together by a D-Net LAN. Once mixed in the tower control room, the program was routed down to the ground floor master control room for the final mix. Ambient sound was added at this point. The final mix was then sent to a Telos Zephyr ISDN codec, and fed by ISDN telephone to IMSRN's two satellites: to Galaxy IV via National Public Radio's uplink in Washington, and to Satcom C5 via ABC in Keystone, N.Y.

To say the least, getting the Indy 500 to air is a complex job. Not only are a lot of things happening live, but there's always the risk of interference — all compounded by the fact that the on-air crew themselves only come together for this annual event. The rest of the time, they're off at their day jobs, in different companies and locations.

However, on this last point IMSRN is fortunate, because its crew has been together for decades. Allebrandi himself has worked on the broadcast for 31 years, while the board operator — whom he called the "short-timer" to reflect his relative newness to the team — "has at least got 10-11 years experience on the job."

Finally, what makes the big difference is that "none of us do it for the money," Tom Allebrandi added. "We're properly compensated, but what makes the broadcast actually work is the fact that we're all having fun doing it."

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New Market for Avails in ROME

by John Montone

SAN FRANCISCO Mike Jackson set out to "use technology to overcome obstacles in media." The result is Buy Media, an on-line database for media buyers and television and radio sales forces.

It features an exchange called ROME, which allows stations to list unsold spots on the Internet, where media buyers have instant access to them. Jackson hopes it will change the way time is bought and sold.

ROME stands for Real-time Open Media Exchange. The idea, said Jackson, "is to connect every radio and TV station

in the country to 2,100 media buyers and planners, representing \$15 billion in annual broadcasting advertising. These agencies and advertisers currently use Buy Media to review station media kits before making buys."

The obstacle Jackson seeks to overcome is what he calls "communications" — the difficulty buyers and sellers have in communicating.

"We're making it easier for advertisers to buy spots at the last minute," he said. "We allow them to place an order in real time in a matter of minutes. By doing that we will bring in new advertisers and more money."

Before the service debuted in May, Jackson had projected that 200 stations would use the service, and that each station would have an average of \$2,000 in last-minute availabilities. In fact, "in the first 10 days, 360 stations signed on with double the number of avails," he said.

For radio stations, Jackson makes the bold claim that ROME is a "third sales channel." After selling locally and nationally, many stations still have unsold inventory. Jackson compares that unsold inventory to a shopping mall, and said the method of buying is similar to financial market trading.

"If a buyer needs to place an order this week or next in multiple markets, he can make hundreds of calls to find out what's available," he said. "That's an almost impossible task. But now he can just click a button."

When in ROME, do ...

After Reaching Jackson's brainchild at www.buymedia.com, a buyer clicks on "Buy Radio." He is presented with a list of markets. Click again: stations and availabilities appear, broken down by price and daypart. Click. Click. Click. Place the order. ROME also provides an on-line credit check for stations.

A. Paul Starke, director of marketing for the SynQuest Agency, plans to use ROME to present affordable radio buying opportunities to those clients not using radio. Jerry McKenna, market manager for American Radio Systems stations in Sacramento, Calif., said, "I expect this new marketplace to bring new advertisers to the radio industry."

Jackson claims the new ad dollars will flow naturally because agencies will find it so much easier to buy radio. He is counting on radio stations to keep signing up because there is no up-front charge. Buy Media takes a 7-percent commission on sales. Jackson called that the lowest cost-per-sale available.

Another condition sure to please local station managers: Buyers cannot use the discount rates offered to negotiate. They

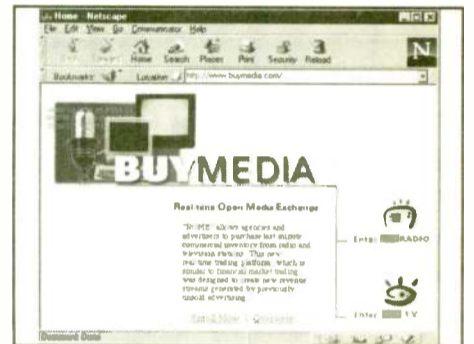
must buy at those rates. "Of course, price will not solely be driven by discount rates," said Jackson. "Some top-tiered stations are asking premium rates for their few unsold spots."

Fall of ROME?

Less sanguine about the ROME potential is Gary Fries, president of the Radio Advertising Bureau. Fries believes ROME can indeed generate new dollars for radio stations, but he doubts it will achieve the status of a "third channel" for sales.

He predicted the money ROME generates will not be significant compared to regular national and local sales figures, especially, he said, "in our current economy, when there isn't much prime inventory available."

Fries also said the concept of making unsold or "secondary" inventory available in bulk is "an age-old radio practice." He compared it to unreserved rooms offered



A Page From Buy Media

by hotel chains as part of vacation packages. However, he said that offering inventory over the Internet makes it "more accessible, convenient and gives you a broader reach."

Fries predicted that ROME will not have much impact on rep firms, because rep firms work closely with stations, and he doesn't believe those relationships will suffer.

Still, many people who make a living buying and selling radio and television time are bullish or at least curious about ROME's possibilities. Among Jackson's clients are Bozell Jacobs, Jeep Eagle, Coca-Cola, American Airlines and Volkswagen.

NAB Petitions FCC On Tower Space

► TOWER, continued from page 1

height are matters of federal regulation. Television stations simply will not be able to meet the DTV buildout schedule if local procedural rules stymie the alteration of existing towers or the citing and construction of new ones."

SBE support

It is becoming increasingly difficult for radio and TV stations to construct new towers, or make alteration to existing structures. As more towers have gone up in recent years, some jurisdictions — hoping to control the development and "potential environmental harm" — have imposed stricter zoning ordinances.

In his letter Fritts wrote, "Every month, more and more broadcasters are contacting NAB about the increasing difficulties they are experiencing in citing new or modified facilities. These problems also are being experienced by

every other terrestrial, spectrum-using firm. Indeed, these delays are threatening the core of the commission's allocation and licensing scheme for broadcasting and for other services."

Terry Baun, president of the Society of Broadcast Engineers, applauded the petition. If some stations are not allowed to build new towers, they "literally could be faced with going out of business," he said.

"It's a bad confluence of things right now. Everybody wants tower space. Vertical real estate is like gold these days. People want space for paging, PCS and the expansion of cellular phone. SBE favors some clarification on the rights of municipalities to arbitrarily impose regulations."

At press time, an FCC spokesman said no action had been taken on the tower petition, but it was under review in the Mass Media Bureau.

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Circle (28) On Reader Service Card

AM Stations Rally to Effect Change

by Matt Spangler

CENTRAL CITY, Ky. AM station licensees took their fate into their own hands and formed a new broadcasting association that hopes to push the Federal Communications Commission to redefine radio markets, to allow AM stations to simulcast on FM translators and to keep foreign entities out of U.S. broadcast markets.

Thanks in part to *RW*'s coverage of community broadcasting earlier this year, a group of independently owned and operated AM stations in May announced the formation of the American Community AM Broadcasters Association.

In the Feb. 19 issue, *RW* published a story about a WMTA(AM) request that the Department of Justice investigate Starlight Broadcasting's alleged attempts to gain a monopoly in the Central City, Ky., market. Then, in a *Guest Commentary* published May 14, WMTA General Manager Bryan Smeathers said that over the subsequent few months his station was flooded with calls from small AM owners and managers from all over the country, "who related their concerns over the impact on small market operators of the rapid consolidation resulting from the Telecom Act of '96."

"Several of these stations have communicated a need for a new national association, for AM broadcasters only, to fill the void left by the NAB (National Association of Broadcasters) and most of the state associations whose primary concentration is on the 'big stations,'" Smeathers wrote.

This interest lead to the formation of ACAMBA. Smeathers said the new association will focus on "community radio stations only and their ability to survive and serve their community." By mid-June, 103 stations had pledged membership to the association, which is led by Smeathers and California radio consultant Ed Crook.

In addition there are five regional heads: Jeff Smith, president of WRPQ(AM) in Baraboo, Wisc.; John P.

Frew, chief engineer with WYXC(AM) in Cartersville, Ga.; Bob Stevens, president of WHJB(AM) in Greensburg, Pa.; Don Kennedy, president of KJBC(AM) in Midland, Texas; and Chris Kidd, general manager of KTHO(AM) in South Lake Tahoe, Calif.

At press time ACAMBA's incorporation was nearing completion. Dues for associate members, which would go towards defraying legal costs, will be \$100 annually. There will be a tiered rate, depending on stations' wattage, for full membership.

Competition

ACAMBA was formed in response to the loosening of ownership limits in the Telecommunications Act of 1996, which resulted in more than 2,100 stations changing hands, for a total of \$15 billion

think they're serving a segment of the market ... that is not well-represented," she said.

NAB would not comment on the new association.

Agenda

The association has pledged to tackle a number of issues facing community broadcasters. First, a clearer definition of what constitutes "a market" is needed before a group's concentration within a marketplace can be determined.

"For example," the website reads, "a county in Tennessee may have four stations, a 500-watt AM, a 1,000-watt AM, a 3,000-watt FM and a 100,000-watt FM. The 100,000-watt station directs its attention to a larger community, such as Nashville, about 75 miles away. The other stations could care less about

The new association will focus on 'community' radio stations only and their ability to survive.

in transactions, in 1996. Since the passage of the act, the industry has seen the consolidation of CBS, Infinity Radio Group and Westwood One, Evergreen Media Corp. and Chancellor Media Corp., American Radio Systems and EZ Communications — and the list goes on.

"(T)his new deregulation favors the major-money and much larger broadcasting entities ... and the many others who have continuously worked on consolidating many of the nation's broadcasting markets, eliminating a diversity of broadcasting voices and views in many instances as a result," reads the welcoming message on ACAMBA's website.

Lynn Chadwick, president of the National Federation of Community Broadcasters, doesn't view the new association as a competitor, as NFCB represents only non-commercial stations. "I

Nashville — they are busy serving their community of license: their signals are even servicing Nashville yet they are all considered to be in the Nashville market by present standards. Under the standards we are operating by today, one company could come in and buy all four of this county's local radio stations because they are in the Nashville market ..."

DOJ officials could not be reached for comment on how they define a market when performing competition analyses of radio mergers and acquisitions. Joel I. Klein, acting assistant attorney general of the DOJ's Antitrust Division, said in a speech earlier this year: "We usually rely on a metropolitan area as the appropriate market and most people agree that's reasonable."

ACAMBA opposes foreign ownership of broadcast entities. An FCC

spokeswoman said that the commission's recent notice of proposed rulemaking that would reevaluate the rules and policies on foreign participation in U.S. telecommunications markets would not affect the broadcast industry.

Sen. John McCain, R-Ariz., recently introduced a bill called the "International Telecommunications Investment Bill," which exempts broadcast licenses from the removal of statutory limitations on foreign indirect investment in U.S. telecommunications corporations.

The association said it also opposes a bill from McCain that would eliminate the newspaper-radio cross-ownership law, which prohibits a newspaper from being co-owned with local radio or television station (see *RW*, May 28). At press time the Commerce Committee had not scheduled a hearing on the bill.

"Those rules were put in place for a purpose, and a good purpose," Smeathers said. "The number-one purpose was to ensure diversity in a community, and the way news was reported. We're going backwards, I think."

Smeathers said the association is preparing a petition that would ask the FCC to adopt rules that would enable AM stations to extend their nighttime coverage — "when most have to reduce power to little more than a CB radio" — through the use of FM translators. Smeathers said that he and Crook have located at least five FM translators being used by two different AM stations in Alaska. They contend that the same exception should be extended to AM stations in the continental United States.

"Historically, when the service was first introduced," a spokesman in the FCC's Audio Services division said, "we had some waiver requests ... and based on the showings made, we determined that for isolated villages, that did not have any other services, we would allow a waiver." The spokesman said the commission examined the issue of allowing AM stations to rebroadcast on FM translators in 1991, and determined that the AM service "should grow on its own" without taking up space on FM frequencies.

For more information on ACAMBA, see the website at <http://www.broadcast.net/acamba>

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INTERNATIONAL UPDATE

Deregulation on Rise in Nigeria

by Franz van der Puye

LAGOS, Nigeria With more than 100 million people, Nigeria is surely a good candidate for a laissez-faire media industry.

But, like most other African nations, successive governments during the first three decades following the colonial era have persistently discouraged private citizens from owning and running broadcasting stations.

Several explanations

As elsewhere on the continent, African officials have always been ready with several explanations for their reluctance to liberalize the airwaves, most frequently citing a need to preserve the security of the state.

However, the trend towards independent broadcasting has now taken hold in Africa, and, judging from events in Ghana and Nigeria alone, it is a trend likely to become a veritable flood within the next few years in the sub-Saharan Africa.

The thrust toward deregulation in Nigeria has been curiously slow in licensing radio broadcast stations.

Although the Nigerian National Broadcasting Commission (NBC) has been operating for sometime now, the rush to establish popular radio stations has not been as overwhelming as it had predicted.

The prohibitive costs of infrastructure and equipment, among other things, have been blamed for the slow uptake of radio broadcasting here. But another underlying factor many observers tend to overlook is a prevailing sense of uncertainty about how the government might react to the socio-political content of radio programming given the current volatile nature of Nigerian politics.

The NBC bears the responsibility for regulating both public and private broadcasting at the federal and state level. But

in terms of licensing, the federal broadcasting institutions are licensed by the decrees that establish them.

The responsibility of the NBC for licensing extends only to the private sector, although state-owned broadcasting institutions are to be licensed by the NBC too in the future. Because no specific department monitors private broadcasting as a separate entity, all the guidelines, standards and objectives that the NBC sets will apply to all sectors — private and public alike — equally.

In 1987, a major conference of the Nigerian communications industry was convened, and a strong voice was raised in favor of Nigeria moving toward the establishment of private broadcasting.

The conference focused on a single question: "If the print media had been so privatized for so long, why is it taking so long for the electronic media to follow suit?"

Of course there were historic factors to take into consideration. As a whole, the print media in West Africa grew from private efforts, specifically missionary institutions, and their development continued in that pattern.

Official mouthpiece

On the other hand, British colonial authorities in Nigeria established broadcasting as an arm of official policy. The bulk of broadcasting operations center on relaying news from Britain and only incidentally serving the needs of the local populace. Broadcasting was, thus, the prerogative of the rulers.

However, this mold began to break in the mid-1950s. When Chief Obafemi Awolowo, who later became prime minister, in Western Nigeria found he could not use the radio to reply to criticisms leveled against him, he fought to include the liberalization of broadcasting as a major item in the negotiations for independence. This action enabled the differ-

ent Nigerian states to have their own broadcasting services separate from the centrally controlled NBC.

It was only the beginning of the fight for deregulation, however. The negotiations did not grant individual entrepreneurs the right to operate private radio stations. It took another three decades for that right to be fully won.

During the last civilian regime, which ended in 1983, it became clear what the

trend would be. Different political parties that controlled different areas and whose ideas differed from those of the central government used the electronic media to put forward their own views through their own institutions.

This was a key element in the development of independent broadcasting. The number of broadcast stations in the states surged between 1979 and 1983 to promote various viewpoints. The law permitted them to do this.

■ ■ ■

Franz van der Puye is associate editor of the Netherlands-based Ghanaian Newstrunner. He is currently on assignment in West Africa.

New Study Links Radio Listening With 'Net Surfing

by Chris Hamaker

NEW YORK An analysis of the 37 million adults who use on-line computer services makes at least one thing clear: Internet users are heavy users of radio.

"Among the electronic media, a higher percentage of Internet users are heavy users of radio than of either broadcast television or cable," according to "Radio in Cyberspace: Embarking on the Journey," a report prepared by Michele Skettino of the Interep Research Division.

The report was compiled from data from the Simmons Spring 1997 study, a national qualitative survey that measures media, brand and product usage.

The strong synergy between Internet users and radio listeners is borne out by other findings, all of which indicate "that the Internet is a superb match with radio," in the words of Marla Pirner, Interep executive vice president and director of research. "Each medium offers complementary strength to the other," Pirner said.

TV an also-ran

There is bad news for television in the Interep analysis of data from the Simmons study.

The most-watched TV program among Internet users reaches fewer people than the cumulative audiences for five distinct radio formats: classical, modern rock, new AC, all-news and AOR (in descending order). And that program — NBC's "The Single Guy" — recently was canceled.

Better yet for the radio industry, 19 percent of heavy users of the medium also surf the Internet — more than twice the percentage of average adult Internet usage (9 percent).

And 88 percent of all Internet users listen to the radio — 4 percent more than watch television, and a whopping 22 percent more than read the daily newspaper, one of radio's major revenue foes.

Men and women

"Radio in Cyberspace" undermines the notion that the Internet is dominated by male users. Males compose the majority of users, but not by an extremely large margin. The study

shows a 57-43 percent male-to-female usage ratio among those who accessed the Internet via an on-line service within 30 days prior to the survey period.

Skettino said this statistic could reassure stations that have been reluctant to exploit Internet technology. "A lot of stations are testing the water to see if they actually want to get involved with the Internet," Skettino said. "I think this just shows that ... if you're trying to reach all consumers ... you would want to know that it isn't only men that you're reaching out there."

The study supports another impression about Internet usage, however. The bulk of Internet users falls within the 18-44 age range. A mere 8 percent of surfers are 55 or older.

The racial composition of Internet users closely corresponds to the makeup of the general population. Notable discrepancies include a 5-percent usage level among blacks — slightly lower than the national percentage of blacks — and a 5-percent usage among Asians, who comprise only 2.29 percent of the U.S. population.

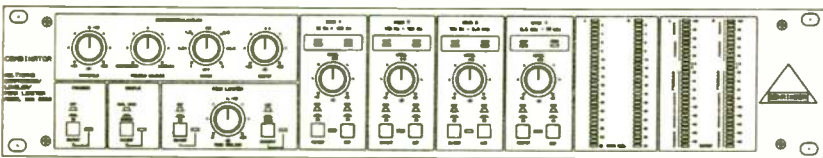
Education levels indicate that Internet users are more learned than the general population, with college graduates comprising 51 percent of all surfers. Only 4 percent did not graduate from high school.

Consequently, most users work in white-collar occupations, mostly as managers and administrators. Household incomes among these workers are higher than average, with 22 percent earning more than \$100,000 — 165 percent above the national average. And 58 percent earn more than \$60,000.

Skettino summed up many of the advantages of the compatibility between radio listeners and Internet surfers. "(The Internet is) kind of an extension of a radio station. For instance, you can offer promotions (over the Internet) and not take up as much air time.

"And it also is good from an advertising perspective. If they can play an ad over the air on the radio and get someone's attention, and then direct them to the website to get additional information or visual information, it works well synergistically in that sense, too."

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Classics CD Result of Agreement

by D. C. Culbertson

WASHINGTON Although the congressional threat to discontinue all funding for public radio is no longer an immediate one, funding still has been cut to the point that organizations like National Public Radio have been forced to look for more creative ways to raise money.

One of the more unusual projects to spring from this search is "The Mystic and the Muse," a CD of Renaissance and traditional music by the Ensemble Galilei, Based in Annapolis, Md. It resulted from a three-way, mutually beneficial agreement between the group, its recording label Dorian (based in Troy, N.Y.) and National Public Radio.

Original idea

The idea for the album originated with group founder Carolyn Anderson Surrick. She was searching for the best way to record the group's next scheduled album,

The final agreement involved Dorian donating a number of CDs to NPR to cover the recording costs.

which was to be its fourth and the group's second on the Dorian label.

While the label prefers to make live digital recordings, usually in the nearby Troy Savings Bank concert hall, the group preferred the idea of recording the album by the analog multitrack method. When the group members mentioned this to their producer, Charlie Pilzer, he told them that NPR primarily records in this way, and suggested they get in touch with Benjamin Roe, a senior producer there.

Last June, Roe, fellow NPR engineer Mark Greenhouse and Dorian engineer Brian Peters met at NPR headquarters in Washington for an initial discussion of the feasibility of the project. Eventually a common working agreement was crafted, although it took about six months to work out.

"It was incredibly hard," Surrick said. "It took a very long time (with) lots of e-mail and lots of time on the phone." But, she said, "it seemed to be a way for everyone to get what they wanted."

NPR fans

Surrick said the six women who make up the ensemble "are big fans of NPR" and are aware that "NPR is going to be forced to find different funding streams." NPR, in turn, has been good for Ensemble Galilei. The group has appeared on the network or its affiliates more than 25 times.

The final agreement involved Dorian donating a number of CDs to NPR to cover the recording costs, and for a per-disc portion of the sales to be donated to NPR and its affiliates. In addition, Dorian initially donated 5,000 copies of the album for NPR to use as part of its spring fund raiser. In turn, the album will be regularly promoted on NPR.

The album was recorded in NPR

Studio 4A, its largest and best-equipped studio, with each musician separated from the others by cubicles of large foam blocks. Despite the seating arrangement, awkward for musicians accustomed to seeing each other, the members of the group were so familiar with the music that many of the tracks turned out to be first takes and the album was recorded in only six days.

Although "The Mystic and the Muse" is actually the sixth album to carry the "NPR Classics" designation, it differs from the other albums in that it is the first released to the general public on a commercial label. All previous NPR Classics were available only as part of

NPR fundraising activities, and many of these were compilations of live broadcasts rather than newly recorded albums.

Surrick said that "The Mystic and the Muse" is selling well in the group's Baltimore-Washington home base since its release in the first week of March. The results are promising enough that Roe of NPR has become interested in thinking about more projects along similar lines.

"We're not trying to play record company," he said, "but I think it is in our interest to find creative new ways for partnering."

Surrick said, "It is always interesting to put unusual deals together" in a way "that makes things good for everybody."



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FCC Tries to Finalize Third AM List

by Lynn Meadows

WASHINGTON A scarce resource in great demand is an age-old recipe for dissension. And woe to the federal agency that tries to divvy that resource even-handedly to a select few.

Such is the scene in the Audio Services Division of the Federal Communications Commission, where employees have tried for more than three years to hand out spectrum in the expanded band to AM applicants. The idea was and still is to relieve congestion on the dial.

In 1993, when the FCC adopted the plan to expand the AM band (1605-1705 kHz),

several hundred AM stations applied for the frequencies. But the three allotment plans released so far make it clear that fewer than 100 stations will be allowed to migrate.

The first two plans — released in October 1994 and March 1996 — were withdrawn because of technical errors brought to light by petitions for reconsideration.

The third allotment plan released in March (RW, April 16) provides hope that the matter can be settled. As if to cement its finality, the FCC also requested that the 88 stations on the new list file their applications for the new frequencies by mid-June. About 20 had turned in their applica-

tions by early June.

Once the allotment plan becomes final, if a station does not get authorization and no application is pending after one year, the allotment will be withdrawn. Competing applications will not be accepted, but petitions to deny will be.

Finalizing the plan

The trick, of course, is getting to the point where the allotment plan becomes final. With so much at stake — 10,000-watt frequencies on clear channels — those who do not make the list have a definite interest in finding technical errors in the agency's computations.

Two petitions for reconsideration have been submitted in response to the third plan. One, filed by Press Broadcasting in New Jersey, asks the FCC to reconsider the five-year transition period for stations moving up the band. Press suggested that because most receivers can receive the expanded band frequencies, a station should give up its existing frequency when it gets the expanded-band license.

It is interesting to see how stations take advantage of the two frequencies. Because of unique circumstances, for instance, WJDM(AM), Elizabeth, N.J., was granted special temporary authority to hop on the

Press suggested

a station should

give up its existing

frequency when it

gets the expanded-

band license.

expanded band in October 1995. The station continued to program 1530 kHz with its old format and used 1660 kHz for Radio Aahs children's programming.

What the commission has said before, explained Peter Doyle, an assistant chief in the Audio Services Division, is that the "five-year period helps justify significant expenses relating to construction of a new facility." The FCC originally was concerned about the existence of receivers and the uncertain viability of stations operating in the expanded band.

With all the time that has gone by since those rules were made, it is unclear what the FCC will say now about the transition period.

Petition number two

The other petition for reconsideration of the third allotment plan came from WONX(AM) in Evanston, Ill. WONX was slotted for 1700 kHz on the second allotment plan but was bumped from the third plan.

The station contends that the FCC ignored its own rule for determining protective contours. According to consulting engineer Ted Schober of Radiotechniques, in communities with a population of 2,500 or less, the FCC rules call for a one-half-millivolt protective contour. Otherwise, the rules call for a 2-millivolt protective contour.


Schober said the FCC used the one-half-millivolt protective contour, which prevented WONX from keeping the slot at 1700 kHz. In its petition, WONX stated that it is in a community of 20,000 and the 2-millivolt protective contour should have been applied. Further, WONX argued that KKSO(AM), Des Moines, Iowa, which is now slotted for 1700 kHz, had a lower ranking and would definitely overlap the coverage area of another station at its new frequency.

As it does for many AM stations, an expanded band frequency means a lot to WONX. The ethnic-format station has authorization for 1,000-watt non-directional daytime and 2,500-watt directional at night on 1590 kHz. The station does have a construction permit to boost its daytime signal to 3,500-watt directional.

Schober and WONX Station Manager

See AM, page 17 ▶

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SFX Takes EAS Units Out

► EAS, continued from page 1
 incidents at SFX in Albany (N.Y.) and other markets, where there were false EAS (triggers)," he continued. "In Albany, the system was tripped six times in one day."

McNamara said, "We gave our stations that are not operating unattended the option to temporarily remove the ENDECs from the program line." McNamara said this move will remain in place until he can find out what measures have been taken to correct the mistake that affected stations in Ohio, Florida and Louisiana.

The problem occurred when a closed-circuit EAS test from the Federal Emergency Management Agency went awry. The test, intended just for WLS(AM) in Chicago, went to the other stations when a FEMA operator failed to deselect them.

OK with the FCC

It is acceptable to take EAS equipment out of the program line — as long as an operator is on duty, according to Frank Lucia, director of emergency communications in the FCC Compliance and Information Bureau.

"Every station has the option of running their equipment either in a manual or automatic mode," said Lucia. "When they are in the automatic mode, they're in the interrupt mode because the machine has to be in the program line in order to interrupt it. So they are

perfectly legal in determining how they want their stations to operate. As long as they do not operate unattended in the manual mode, there is not a problem."

At SFX in Tucson, Ariz., Chief Engineer Jeff Bemrose does not have his LP-1 and LP-2 stations in the program line because "we're originating (the EAS) all the time." At SFX stations KPLN(FM) and KYXY(FM) in San Diego (which are not LP designees), Chief Engineer Lee McGowan has chosen to run EAS in manual mode.

"Our problem with it is configuring the unit to send either the weekly or the monthly test," he said. "It's two different

configurations. We have about two dozen air people at the stations. To get them up to speed on how to do it on their own is difficult. I usually end up getting paged, particularly when a monthly test comes in. They look at it and still aren't sure what to do, despite the fact that we have instructions posted."

Getting the bugs out

McGowan acknowledged that, while some air talent can run the system smoothly, it is particularly difficult for part-timers who may run just one monthly test a year. "To expect them to remember the key-strokes to set it up and understand what's going on is difficult," he said.

Jim Woods, director of studio products, Harris Corp., Broadcast Division, which markets the Sage ENDEC system, said, "EAS is very complex to implement. There are a lot of issues related to it." He stated that the problems are "not an ENDEC difficulty; the ENDEC performs. I won't tell you that the ENDEC is perfect, but it's doing exactly what it's supposed to be doing."

The software upgrade that was recently sent to stations "addresses some bugs that were identified, and has feature enhancements making the unit easier to program," he said.

McNamara agreed that the problem is not with the ENDEC. He concluded, "I am confident that EAS will eventually work, but until such time, we have to safeguard access to our program chains."

While broadcast and video production environments have changed over the years, your need for a Shure mixer has remained.

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AM Winners Raise Issues

► AM, continued from page 16

Ken Kovas said they are frustrated because some stations applied for expanded band frequencies whether they truly wanted one or not.

"There are stations on the list that will not avail themselves of it," said Kovas. "We're very eager to have it."

Schober agreed. Several of the current "winners," he said, will probably keep the frequency for five years, make some money on it and then give it back.

"If I had my druthers between 1,000 watts on 640 and 10,000 watts on 1620, you know what I'd take?" he said, noting the substantially greater coverage at the lower end of the band.

"This has been a very troubled procedure for the FCC," said Schober, expressing sympathy for the staffers caught in the middle. The Audio Services Division is no doubt excited to move forward with the third plan. Both summer vacations as well as other pressing issues at the commissioner level, however, may delay the resolution of the two petitions for reconsideration.

And Doyle could not rule out a fourth plan.

"If recon affects either the frequency preclusion program or allotment program," he wrote via e-mail, "a different allotment plan is possible. Look what happened last time."

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MUSICAM EXPRESS Delivers

Alan R. Peterson

This is the first in a three-part series on digital delivery systems — services that send commercials and music to radio stations via ISDN and POTS phone lines. RW will describe each service, the technology behind it and the future of each, as explained by representatives of the companies themselves.

Remember worrying that the spot that absolutely had to hit the air tomorrow morning at 5:30 a.m. would make it to the station in time? The burning in your gut when the UPS truck or the FedEx courier drove right by your building

without dropping off *that* reel?

All of that changed a few years ago when direct digital delivery to radio stations became a reality.

No more worries about bad dubs, misplaced reels or late shipments. A production director could stroll into the studio at 9 a.m., coffee in hand, then press a key on a terminal and check the inventory of spots that had been downloaded automatically overnight.

A lot has happened since radio stations first began to use those early "ATM machines," so nicknamed because, according to one manager, "they had a yellow screen and printed money for the radio station." Standard

phone lines gave way to ISDN connections and satellites; managers began to understand the potential offered by the Internet.

Stations began to consolidate and automate. Competition between couriers heated up, and technological improvements in computers changed the landscape.

Up first

RW spoke with the three largest distribution services for this series of articles. Today: MUSICAM EXPRESS.

The service began in 1995 as a joint venture between StarGuide Digital Networks (formerly VirteX) and Infinity

Broadcasting (now part of CBS Radio). Compression technology was provided by MUSICAM USA. In addition to delivering commercials and music as the other major services do, MUSICAM EXPRESS has moved into distribution of long-form program material.

The keystone of the service is a system called WinDaX (for *Windows Digital Fax*). A Pentium-based PC running under Windows 95 stores and forwards audio with the simplicity of e-mail. WinDaX units are in the top 75 radio markets.

"We have WCBS(AM) and -FM in New York," said Karin Marke, marketing and affiliate manager for MUSICAM EXPRESS, "as well as the Don Imus flagship station WFAN(AM), and WXRK(FM), Howard Stern's home base."

Other heavy-hitting stations with WinDaX are KROQ(FM) and KIIS-FM, Los Angeles, and WGN(AM) and WRCX(FM) Chicago, to name a few of the 1,500 stations using the technology.

Program provider

The MUSICAM EXPRESS WinDaX system is more than a commercial forwarding and storage system. The company also is providing programming to affiliates of SW Networks and Westwood One.

Long-form programming from Westwood One includes MTV Radio Network, Bloomberg Business Radio, SPIN Radio Network and "Last Night with Jay Leno."

Keith LaHonta, vice-president of sales and marketing, said, "You could call us a full-service delivery system for programming and spots, basically a 'public network.'"

Would this not then make MUSICAM EXPRESS an actual network unto itself — much like ABC or Mutual — and less like the delivery system that it claims to be? Not in this sense. If a "network" is defined as an entity that *originates* programming as well as distributes it, then MUSICAM EXPRESS is actually more of a messenger than the author of the message.

"We do deliver programming, but we don't own it," said LaHonta.

The WinDaX system is the receiving unit, located at the station. It combines features of a PC retrieval system, programming sequencer and jock interface.

"It is not a station automation system, but a complement to automation," said LaHonta.

The retrieval functions receive and store audio files. CD-quality audio is maintained throughout the process. Customized IDs and new programming features can be delivered as easily as music.

Program sequencing lets the program director preview shows, check on spot advertising and listen to new song releases, then mouse-click the elements into an air-ready product.

The "JockBox" feature allows live air talent to access and air audio content directly off the unit.

In addition to audio, the WinDaX also receives and makes available traffic instructions, show prep text material and scripts, all available for editing within the PC before use.

Transmission methods include ISDN and addressable digital satellite. Material is available on demand, and the PC ignores content not intended for that
See DELIVERY, page 19 ▶

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Circle (184) On Reader Service Card

World Radio History

► DELIVERY, continued from page 18
specific station.

MUSICAM Layer 2 compression (12:1) is used on all audio with a transfer rate of 64 kB up to 512 kB and is flexible enough that bandwidth can be reallocated. The compression scheme allows lots of storage on stock hard drives.

The advantages of instant communication via combined satellite and ISDN — along with what MUSICAM EXPRESS calls its "hub" concept — are attractive.

have it sitting in the lobby for radio stations to pick up. Or they use the ProducerDaX (the sending unit which puts audio into the system) and which it to the hub. WCBS creates a mail list, then sends the spot via ISDN. The spot is sent out from the local hub to all stations on the list."

"This way," said LaHonta, "salespeople don't have to drive across town and waste time picking up tape. They could be out selling and doing their job."

Both LaHonta and Marke said the process is more efficient and money-saving than central-point distribution technology.

"You see that same spot to (another delivery service) and it has to go all the way back to their main office, where it is then sent out," said LaHonta.

In his particular example, a New York-produced spot must be sent via ISDN to the West Coast, then distributed via POTS or ISDN right back to New York for local distribution. It is still fast, given the speed of ISDN transmission, but long-haul ISDN cost makes the spot more expensive to deliver.

MUSICAM EXPRESS maintains satellite capacity in the top 20 market hub locations. Local sends can go over ISDN, but if mass distribution on a national level, one hub location will send content

up to the satellite. It is then received by all other hubs, then sent over the "last mile" to each WinDaX receiver via ISDN.

"In certain markets, ISDN local rates can be better than long distance," said LaHonta.

With the satellite infrastructure already in place, Marke said the costs are more reasonable than long-haul ISDN phone charges.

Always a Plan B

As in any system, there can be a breakdown in the best plans. If the phone company suffers an ISDN failure, if a station's terminal goes down or there is a crisis at a hub, MUSICAM EXPRESS can still get radio stations their spots in time for broadcast.

LaHonta said near the national distribution point for United Parcel Service. In a pinch, that hub can run off reel dubs of the spot to be delivered.

"As long as we have it by 1 a.m. at the latest, we have the 'little brown truck' come by and get it on the 3 o'clock plane,"

he said.

MUSICAM EXPRESS has made it a point to launch into — and gain hold of — the top groups in the 75 radio markets. In the future, the company will provide receivers to stations that want them, even if they are out of the top 75.

A company with a presence in a medium market may also own stations out of the top 75. In order to increase the MUSICAM EXPRESS base of receivers

undergoing a facelift. Soon to come is Affiliate DaX version 3.0.

According to LaHonta, "This is new software with a 'net-like Explorer interface. It won't actually get into the Internet, but will search for audio and data in a similar manner."

With 1,500 stations signed up for service, MUSICAM EXPRESS is always looking for more.

In upcoming issues, RW looks at Digital Generation Systems (DG Systems) and Digital Courier International.



Additional information on MUSICAM EXPRESS is available from Keith LaHonta in California at (888) 366-4869 or circle Reader Service 6.

Alan R. Peterson is technical editor of RW.

The advantages of instant communication are attractive.

and affiliates, LaHonta said he would speak to the groups and, "We would say, 'Well, here is what we can do ...'"

The user interface on the WinDaX is

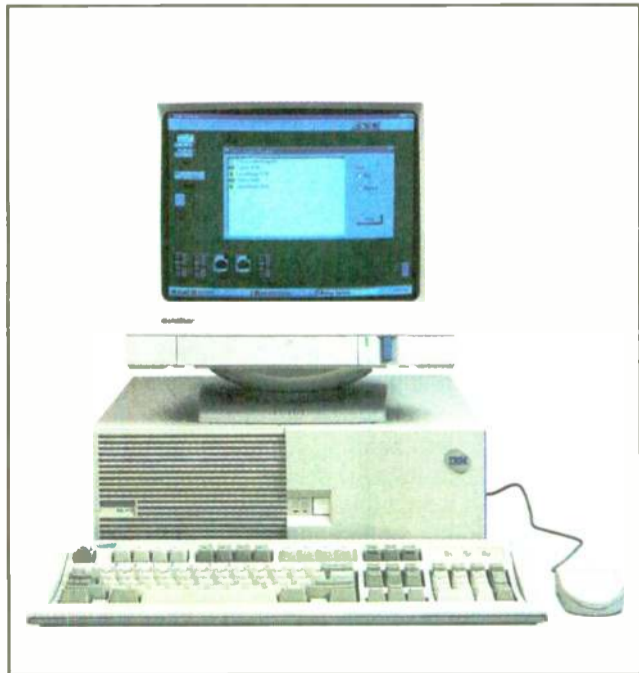


The MUSICAM EXPRESS Hub for Washington, D.C., at WJFK-FM

A national radio buy, and delivery to all stations involved, can take place within one hour, and the ads quite possibly can be on the air from Maine to California before the announcer who voiced them gets home following the session!

Like the airlines

Taking a tip from the airlines, MUSICAM EXPRESS audio distribution is done in a "hub" fashion, directing audio



WinDaX from MUSICAM EXPRESS

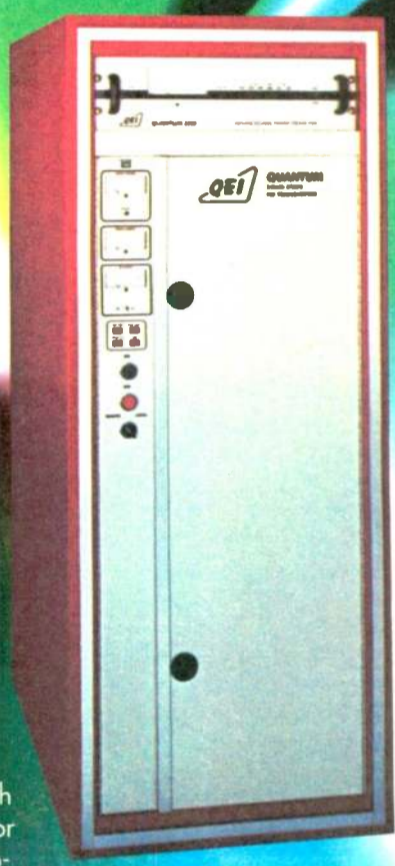
from top markets in the United States.

Marke and LaHonta point out the advantages of this system: lower cost and faster distribution.

"Say it's 'sweeps' week in New York, and WCBS-TV produces a spot," said Marke. "They could dub it to tape and

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Circle (210) On Reader Service Card

Europeans Focus on U.S. Market

Marguerite Clark

You can see the trend in the pages of trade publications and on the floor of broadcast conventions: Companies based abroad are seeking a greater presence in the U.S. broadcast market.

The recent NAB show reflected their efforts. While representatives from public and private radio stations outside the United States have attended the NAB convention for years, a noticeable number of international companies, particularly from Europe, have been booking space on the exhibit floor.

Why are so many European companies rushing to get in on the action here?

Perhaps it is a consequence of the growing internationalization of markets, or maybe it is a natural evolution for companies to expand and look elsewhere for opportunities.

IDT

Take the Ecully, France-based IDT, for example. Founded only seven years ago, IDT has established itself as a leading European company in the field of sound processing.

"We are at NAB because it is the number-one international show, and particularly because we have plans to develop the American market," said Andy Simpson, the new international market-

ing director for the company.

According to Simpson, the strength of several markets in the Americas, as well as a favorable exchange rate, make the hemisphere attractive for IDT.

"The hardest step is to have the first radio or TV station break with tradition and put us on air," said Simpson. "Once this hurdle is overcome, our experience in Europe has shown that others are very quick to follow, as they don't want to be left behind."

Eighty percent of broadcasters' processors used in France are made by IDT, according to the company.

NAB '97 was the showcase for the new Sound Style processor and Assistants

software, which offers broadcasters an affordable, plug-and-play four-band processor with analog and digital I/O, a stereo generator and Windows-based control software.

"Our philosophy is to adapt to our customers' demands, not to expect them to adapt to us, which has been well appreciated," Simpson said.

Itelco, with headquarters in Italy, has been addressing the U.S. market for several years; it maintains operations in Colorado and Florida. Its office in Miami is also the center of focus for the company's efforts in Latin America.

Making its second appearance at NAB was the Finnish speaker manufacturer Genelec OY. Founded in 1978, the Iisalmi-based company, which boasts 50 employees, had catered to the U.S. market via a distributor for approximately six years.

One step further

But, according to Lars-Olof Janflod, international sales manager, it was time to take another step. So, in January 1996, it opened U.S. subsidiary Genelec Inc., in Sudbury, Mass.

"We set up Genelec Inc. to improve product availability and service customers (dealers and reps) better," Janflod said.

Product distribution is the main difference between the U.S. and European markets, Janflod explained. "In the U.S. everything is sold through dealers, while in Europe, especially when it comes to selling into major recording studios, direct business is usually done between the distributor and end user," he said.

"Genelec OY was well received before we opened the U.S. subsidiary, but now we have direct contact with the representatives, dealers and end users," Janflod said.

Looking south

Not only has the new Genelec subsidiary been beneficial for the company in the United States, but it also has helped increase sales to Latin America.

According to Genelec Inc. Managing Director Lisa Kaufmann, the U.S. location has proved to be a winning move for the company.

"The whole distribution chain has improved. We now ship equipment directly from the U.S. to South America without any holdups," Kaufmann said.

It is just so much more pragmatic, Janflod added. "If we were to send products via air freight from Finland to South America, the customer might spend more on shipping than on the actual product."

The strongest South American market for Genelec thus far is Chile, followed by Brazil and Argentina.

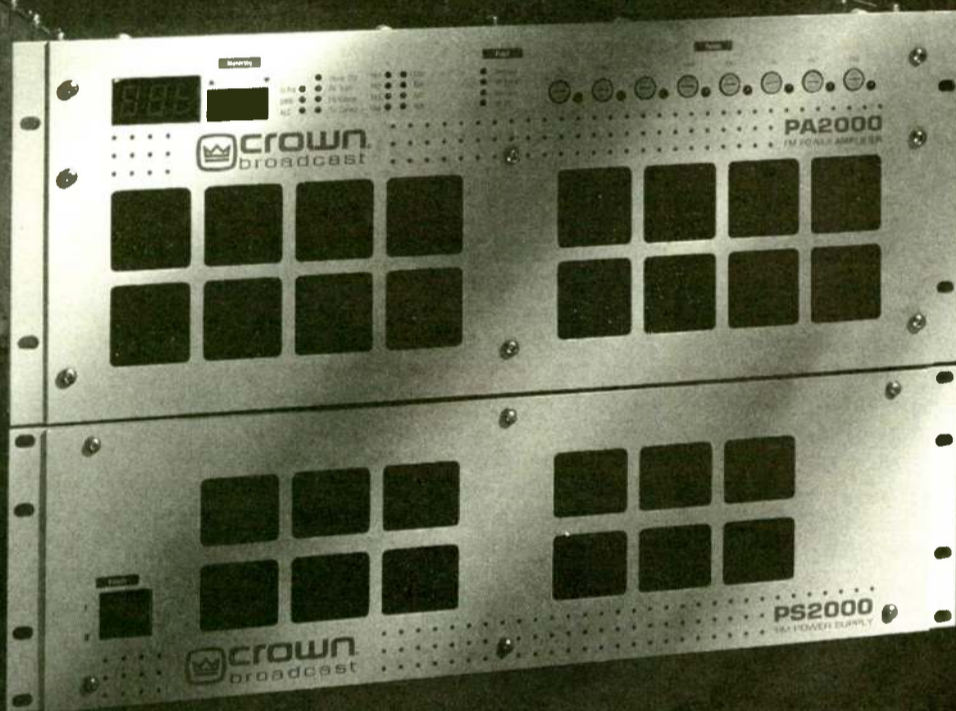
Exhibiting for the first time at NAB was Sonifex, founded in 1969 and based in Irthlingborough, England. It manufactures broadcast equipment for radio, television, film and theater.

According to Marcus Brooke, managing director, the company was at NAB — focusing mainly on its Courier portable recorder — to see if there is a market for Sonifex in the Americas.

Brooke explained that most Sonifex products, such as its Sovereign line of consoles, are designed for the European radio market.

Because U.S. radio stations operate differently, Sonifex needs to understand which of its products are most suitable.

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► EUROPE, continued from page 20
 "We already have a good idea," said Brooke. "But the show should help to confirm our thoughts. In addition, it will help us find distribution channels for our products in both the U.S. and Latin America."

Meeting place

In fact, Brooke said, because NAB is such a huge meeting place for broadcasters from around the world, Sonifex hoped to get interest in the Latin American market, as well as other markets.

Also banking on the potential of the U.S. market is Digigram.

Based in Montbonnot, France, Digigram manufactures a line of digital audio cards that is an industry standard in Europe. The company also opened a U.S. office in March, tapping Neil Glassman as its vice president for North America.

European accents are becoming more common in U.S. sales offices.

According to Digigram President Philippe Girard-Buttoz, "We have to build the image of the company, show people in the U.S. that Digigram is a very credible company and not a 'French company' that is trying to reach the American market."

This will require Digigram to change some of its marketing strategies. After more than a decade of presence on the European market, it will be different for Digigram to be the new kid on the block again.

"We have to build our image, we have to explain all the range of products and we have altered our marketing materials accordingly," Girard-Buttoz said.

The OEM approach

One way Digigram has worked to establish itself in Europe is by working with original equipment manufacturers (OEMs). The company has more than 100 partners in 25 countries around the world — including RCS, Dalet, ENCO Systems and EDS — that use Digigram cards with their respective digital audio editing or automation and live assist systems.

Although OEMs are an important part of the Digigram business strategy, the company had a number of products on display at NAB '97 for end users.

"We are presenting our new products — PCXpocket, PCXtools and PCX11+," said Girard-Buttoz. "The PCXpocket is a revolutionary product in terms of digital audio cards."

■■■
 Marguerite Clark is European editor of RW, based in the Milan headquarters of IMAS Publishing (Europe) Srl. in Italy.

SIGNAL-TO-NOISE

Yes, Virginia, It Sure Is Radio!

Frank Beacham

Should audio broadcasting over the Internet be called "radio"?

It is one of those lingering questions that's been vigorously debated by broadcast veterans from boardrooms to barrooms throughout the land.

Now, one of the nation's leading authorities on the history of broadcasting has answered the question. The Museum of Television and Radio, after much internal debate of its own, has decided that audio transmitted over the Internet is, in fact, a form of radio.

"Our decision was not just made internally, but involved our board members as well," said Kenneth E. Mueller, curator of the radio programming collection at the museum in New York City. "Even though it doesn't come into the home on a traditional radio receiver, we determined that it is radio. The Internet is merely an alternate form of delivery system."

In effect, the museum decided to separate the audio content from the technology that delivers it. The decision, Mueller said, will probably extend to cable radio, satellite radio and eventually hybrid

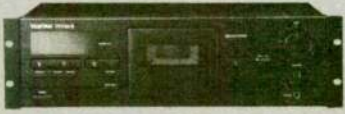
media that include a mix of audio, video, graphic and text information.

"There's much talk about the computer and television becoming one in the same," Mueller said. "That might include radio as well. There may soon be one device that combines television, radio, computer, Internet and print media."


A museum 'first'

The museum's decision to give Internet broadcasting its seal of approval was celebrated this spring with the


See MUSEUM, page 25 ►




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ROOTS OF RADIO

Hard-boiled, Classic Radio

Richard W. O'Donnell

Sure, radio has its share of hard-boiled detectives. And their shows attracted large audiences every week.

But radio's tough private eyes weren't as rough-and-tumble as their press releases made them out to be.

In fact, they were more soft-boiled than anything else. In the movies, Marlowe, Spade and company could get away with their rugged shenanigans once or twice a year. On radio, these two-fisted sleuths had to drop by your house for a half-hour every week. And who wants a battered and bruised specimen coming by regularly, especially one who snarls at senior citizens, picks on pretty females, and is liable to slug every second person who comes his way?



J. Scott Smart was radio's 'Fat Man.'

Radio's private eyes, no matter how tough they claimed to be, had to ooze charm whether they liked it or not.

Singing and punching

Take Dick Powell. In his celebrated 1944 film "Murder My Sweet," the former crooner was mugged, drugged and slugged before he was able to toss a few punches and catch the murderer. Powell was a great Philip Marlowe on screen, but he had to calm down when he played private eyes on radio during its glory years.

For two years on the Mutual Network, Powell starred in "Rogue's Gallery." He

was Richard Rogue, a private detective, who vaguely resembled Philip Marlowe, except for the fact that he had gone to charm school. Then in 1949, Powell launched "Richard Diamond, Private Detective," which lasted, mostly on NBC, until 1952.

Wins every time

Diamond solved all his cases. And he was tough every once in a while. Mostly, he was "happy-go-lucky," as one critic described him. On the show, Powell usually celebrated nabbing a villain by singing a song from one of his old Warner Bros. movies, or whistling a tune. No doubt about it, Powell was kinder and gentler on the radio.

Van Heflin, we should note, played "Philip Marlowe" on the airwaves during the summer of 1947. Gerald Mohr played the title role, when the series came back on CBS in 1948. Most of the time, it was on a sustaining basis until it went off in 1950. Marlowe tried to seem tough, but he was really lovable, and was kind to children and patted dogs. Radio's Marlowe lacked the old film gusto.

No doubt, Dashiell Hammett turned his radio off when "The Adventures of Sam Spade" came over CBS every Sunday night during the late 1940s. Bogie probably trembled, too.

As played by Howard Duff, who had a magnificent speaking voice and was one of radio's all-time greats, Sam Spade was a whimsical soul, who led the carefree life, loved chasing skirts and, in general, had a jolly old time before solving the case every week. Radio's Spade was more Duff, by a long shot, than Bogie. To be frank about it, he was wonderful, but definitely a different character. Lurene Tuttle played his faithful secretary, Effie, on the show.

In 1946, Hammett created another popular private eye show, "The Fat Man." It came on ABC in 1946 and lasted until 1949. J. Scott Smart, a pudgy actor with a tremendous voice, played Brad Runyon, the overweight crime solver. The character started out tough, but melted down to a nice guy after a couple of months. Overall, it was a good show.

Jack Webb of "Dragnet" fame had two

private eye shows, "Johnny Madero, Pier 23" on Mutual in 1947, and "Pat Novak for Hire," mostly on ABC during the late '40s. On both shows, Webb played a waterfront private eye who solved problems for a price. "Novak" established Webb as a radio actor of top quality. His staccato approach to crime-solving lacked the warmth of Powell and Duff, but he was all heart when the script required, and it often did. The two shows were primarily primers for radio's "Dragnet," which later hit the big time when it went on television.

There were a number of popular private eye shows. Remember radio's "Martin Kane, Private Detective," "Michael Shane," "Boston Blackie," "The Abbott Mysteries," "Affairs of Peter Salem," and Mickey Spillane's "The Hammer Guy?" Mike Hammer obviously took a tranquilizer before he went on the air in this one. The show did not last too long on Mutual in 1953.

Two of the private eye shows were exceptions to the rule. They were "The Affairs of Ann Scotland" and "Candy Matson."

Both featured female private eyes. Radio veteran Arlene Francis played Ann on ABC in 1946 and 1947, and she did a fine job as a sweet-talking, "quick on the uptake" detective. She tried, but hard-boiled she would never be. Maybe a soufflé.

As for Candy Matson, she was played by Natalie Masters in sultry fashion, over NBC from 1949 to 1951. Candy was a beauty, and all the admiring males in the radio cast made that clear. But she was tough enough and always a lady. She was fearless and

never let all the flattery go to her head.

For some reason, Candy never switched to television, and that was a shame. Her countless male fans, and there were millions of them, would have enjoyed watching the sexy sleuth on the video screen. Such is life.

It was a great show. There is a possibility the TV picture could never have matched the image created by Candy's radio voice. Imagination can be a powerful thing.

Nasty Nero

Of all the private eye shows on radio, one did regularly feature a hard-boiled sleuth every week. Most of the time, this particular character had a nasty word for everybody who came close to him.

That would be Red Stout's "Nero Wolfe," who "rated the knife and fork the greatest tools ever invented by man."



Sydney Greenstreet, seated, played Nero Wolfe on radio for a while. He is shown with another moderately successful private eye in "The Maltese Falcon."

Nero could be mighty nasty when his meals were late.

Now, it may be argued that Wolfe was not a detective of the Marlowe/Spade genre. But he was definitely a private eye, and in his own way, he was as hard-boiled as any of them.

It is true, the orchid fancier rarely left his New York brownstone, and that his assistant, Archie Goodwin, had to do most of the legwork. Wolfe weighed a ton, and he was probably heavier than that other overweight private eye, "The Fat Man."

Because of his weight, Wolfe did not go out among the populace. He evaluated all of the clues, summoned the suspects to his office or dining room table and let the cat out of the bag.

From 1943 until it last aired in 1951, "The Adventures of Nero Wolfe" was mostly on NBC. Early on, Santos Ortega and Luis Van Rooten played the lead. Hollywood's Sydney Greenstreet played the part for a while.

Along the way, Elliott Lewis, Herb Ellis and Lawrence Dobkin among others played Archie.

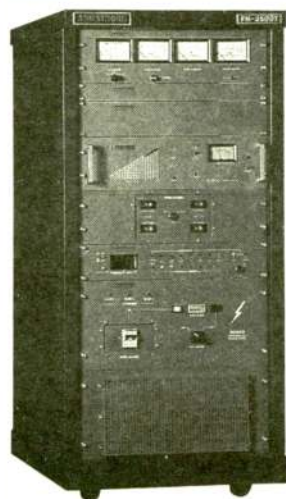
Wolfe, though he kept close to home, was slugged a few times along the way, but seldom tossed any punches. That was Archie's department.

Nevertheless, Nero Wolfe was as tough as they make them. Never once did he ever abandon his hard-boiled image. He was true to the code.

■■■

Dick O'Donnell is a freelance writer and old-time radio buff living in Florida. Reach him at (813) 842-6638.

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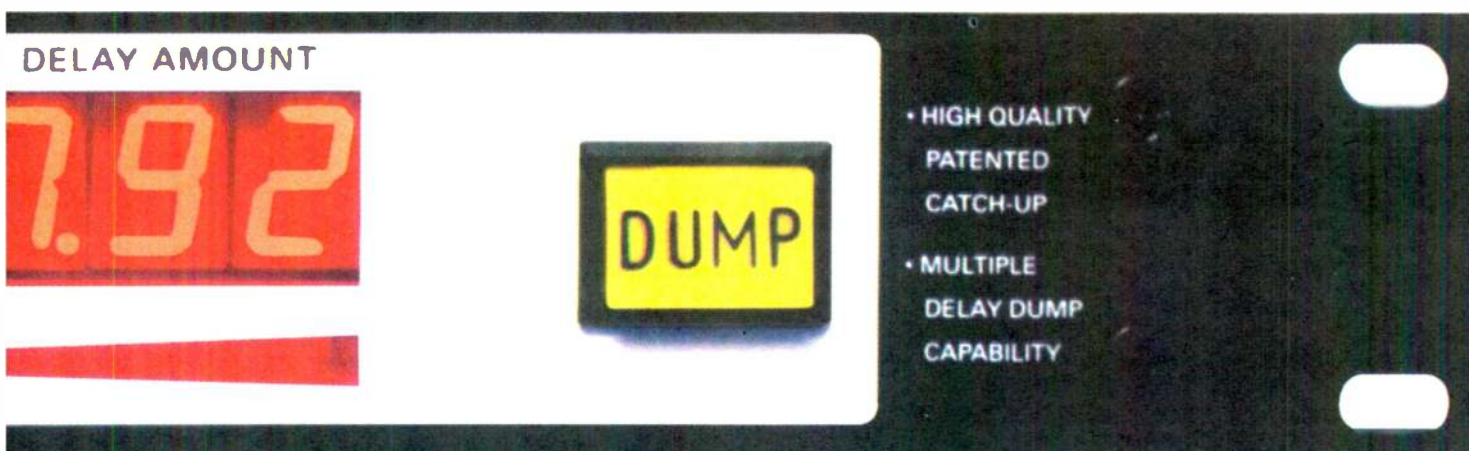
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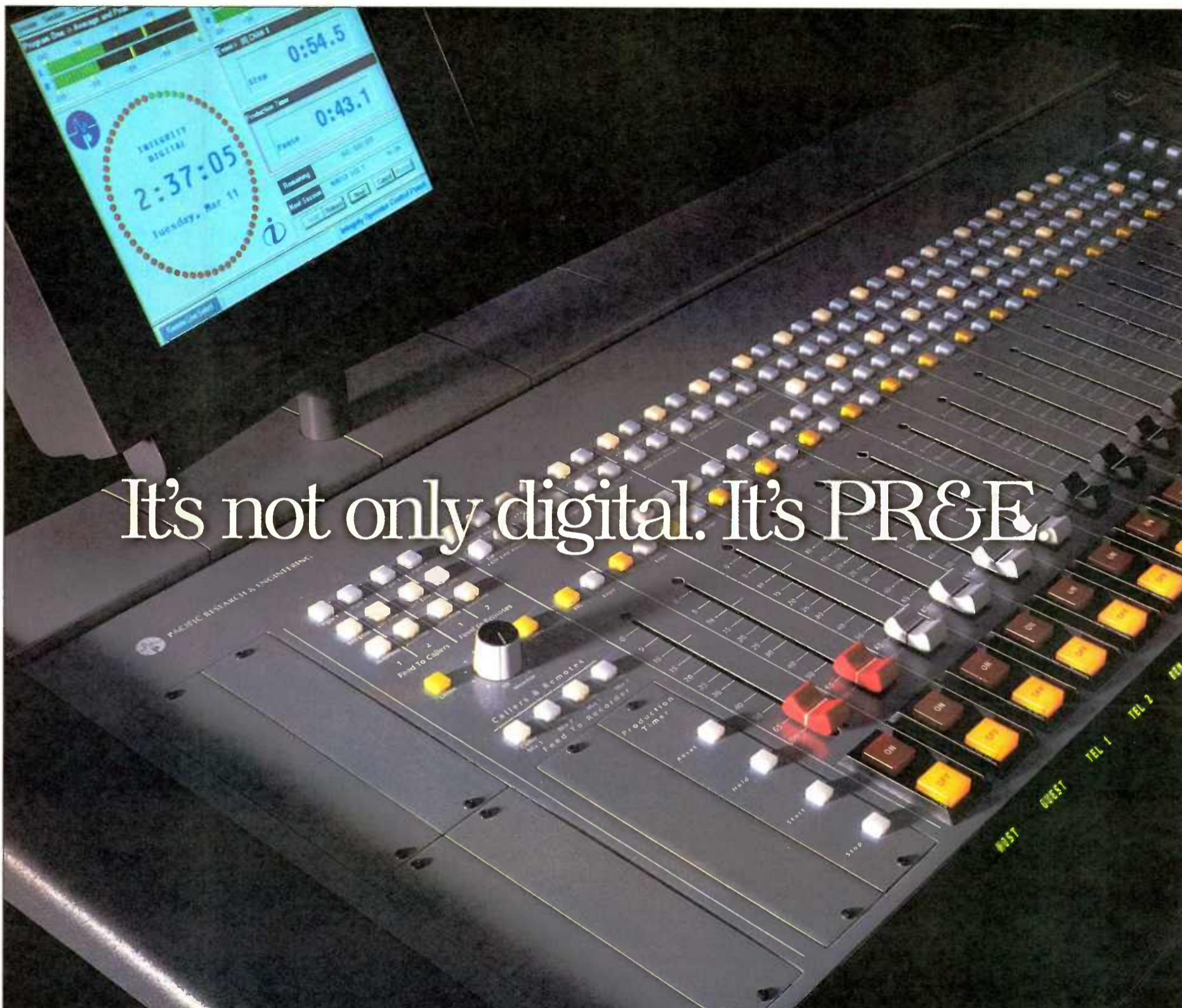
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PACIFIC RESEARCH & ENGINEERING

Circle (133) On Reader Service Card

World Radio History

Internet-only Radio

► MUSEUM, continued from page 21

acceptance of the first five Internet-only broadcasts into its 20,000-plus radio program collection.

Four of those programs, which include interviews, talk and news content, came from GRIT, a New York City-based, Internet-only radio station. The fifth emanated from a recording, from Temple Emanu-El in New York City, of what is believed to be the first Internet audio broadcast of a seder, the Passover meal ritual.

Radio programming selected for the museum collection, said Mueller, is based largely on cultural and historical value. "The programs should have a cultural significance that gives you a slice of what people around the world are listening to at a given time," he said.

To celebrate the event, GRIT broadcast live for three hours in the first Internet-only radio broadcast from the museum. The program featured back-to-back interviews with guests that ranged from veteran "old media" newsmen Edwin Newman, Sander Vanocur and Reuven Frank to "new media" players such as New York Times "CyberTimes" columnist Lisa Napoli and Peggy Miles, head of the newly-formed International Webcasting Association, a trade organization of web broadcasters based in Washington.

"There's been an explosion in the last six months of people realizing that the web will be another broadcasting arena," said Miles to GRIT interviewer Robert Petrusch. "They range from 14-year-old kids who want their own broadcasting station to major corporations."

Miles, who heads the Internet consulting firm Intervox Communications in Washington, said that in the 12 months ending in April, audio broadcasting over the Internet increased from 56 participants to 430, an increase of 624 percent in a single year.

New kinds of content

According to statistics from Intervox and BRS Radio Consultants, the makeup of audio broadcasters on the Internet during that year included 249 radio stations, 19 networks, 120 international outlets and 42 Internet-only broadcasters. As of May, the number of total webcasters surpassed the 500 mark.

Some innovators among the pioneering webcasters, said Miles, are changing the communications medium by creating new kinds of content that combine audio, video, visuals and enhanced chat technology. "Interesting and dynamic new niche content is now being created," she said.

"I have no doubt that the next phase of the Internet is audio and video," she said. "A few years ago there was this 500-channel universe that didn't happen because of the high costs. But now it looks like there may be a 500,000-channel universe developing on the Internet."

The major issues still hindering webcasting, Miles said, include poor technical quality, lack of standardization, difficulty of use and a disbelief among some traditional broadcasters that the Internet is a serious form of mass media.

"The technology must become very user friendly," said Miles. "We're in an instant gratification society and people

want their programs quickly and easily. I think these problems will be solved within the next two years."

The Museum of Television and Radio thinks Internet broadcasting is here to stay. "We think it will continue to grow and blossom because in many ways it's a furthering of the concept of narrowcasting, where certain types of programming that might not be viable on a broadcast station are viable on the Internet," said Mueller.

The appeal of the Internet, he said, is low cost ("You don't have to buy a radio station") and no requirement for an FCC license. "You can afford to reach very narrow audiences," he said. "Sports radio does very well on the air but would

anyone do an all-baseball radio station? Only on the Internet would it be feasible to do programs targeted only to baseball fans."

For additional information, visit the website for the Museum of Television and Radio at <http://mtr.org>; GRIT is at <http://www.grit.net>; the International



GRIT Host Robert Petrusch (r) interviews veteran Sander Vanocur (l) during the inaugural Internet broadcast from the Museum of Television and Radio in New York City.

Webcasting Association is at www.webcasters.org; and Intervox is at www.intervox.com. BRS Radio Consultants has a list of webcasters at www.brsradio.com/webcasters

Frank Beacham is a New York-based writer and producer. Visit his website at www.beacham.com or send e-mail to frank@beacham.com

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Workbench

Radio World, July 9, 1997

Stuff You Can't Do Without

John Bisset

Here's a follow-up to our May 14 *Workbench* regarding the Nakamichi MR-1 cassette deck, from Adam Liberman. Adam writes via America Online that Nakamichi has a modification kit that replaces the tire-type idler wheel with a gear-type idler. The retrofit parts replace the reel motor assembly and the reel hubs, and are available for a number of models including the MR-1 and MR-2. These new parts should last the life of the machine, and will improve reliability vastly because they eliminate a major problem area. Later production units already include the redesigned parts, so check inside your machine before you order.

Thanks to Adam Liberman, who can be reached online at aliberman@igc.org

★★★

Every once in a while, a company develops a product that you just can't live without. STREAMLIGHT Inc., in my estimation, has achieved that through its development of WOW. Available in yellow or granite, WOW is a transformable flashlight headlamp. Think of the times you needed to hold a flashlight inside a transmitter, and use both hands at the same time. This flashlight has a split handle, which opens up to form a curve that fits neatly against your forehead. The elastic loop is slipped over the back of your head, and you have bright light wherever you turn your head.

The WOW costs less than \$20. For higher light intensities, try the TopSpot2, a transformable flashlight/headlamp with a brighter light.

Streamlight's products are sold through public safety and police supply stores, but can be ordered through the mail by calling (888) LIGHTS-1.

★★★

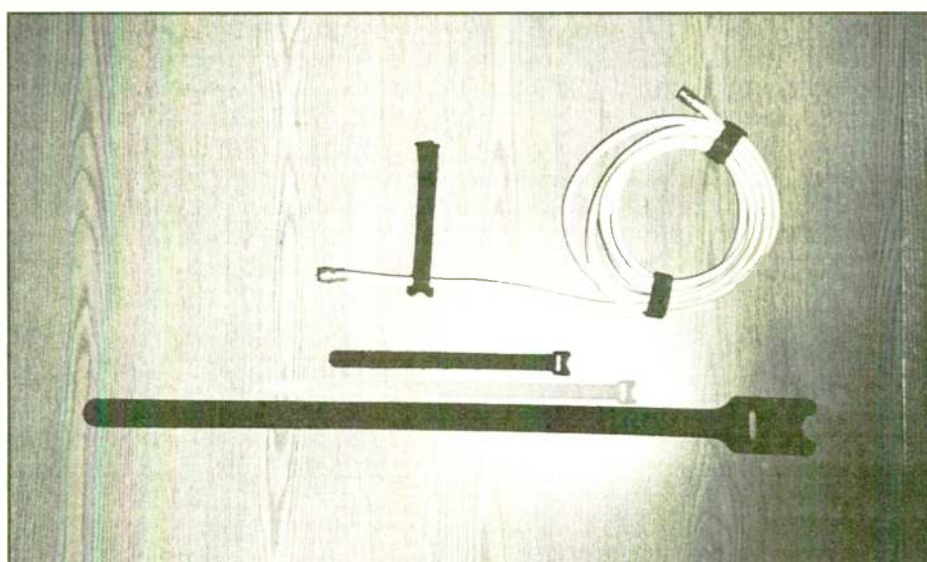
Now that remote season is underway, are you searching for an inexpensive way to secure your cables? Try some PRO WRAPS hook and loop reusable cable tie wraps, distributed by KAJO Company (see photo). Described as the tie wrap for the 21st century, the design marries "hooks" on one side of a flexible plastic strip, "loops" on the opposite side and a slot to feed the end through.

You just wrap the strip around your cable bundle, and it holds. The short pile on the "loops" side minimizes lint and dirt collection (great when used outdoors). The plastic strip can be stapled under a console, providing the ultimate in

adjustable-size wire management. PROWRAPS come in three sizes. If you'd like a free sample, circle Reader Service 110.

★★★

From time to time, I like to include tips on catalogs that are a "must" around your shop. One is from Pasternack Enterprises' Coaxial Products Division, which offers an 85-page catalog full of



PROWRAPS self-gripping strips are inexpensive, yet versatile.

every kind of coaxial connector, cable and adapter. No high-powered stuff, just BNC and Type "N" cables, power dividers and the like. For a copy of their catalog, circle Reader Service 136.

★★★

Another good resource, this one for telephone accessories, is HELLO Direct. Their mainstay is quality headsets, but they offer other great telephone products. Speaking of their headsets, if you have a receptionist who doubles as a sales or traffic assistant (meaning she's not always at the front desk), look into the Office Rover, a hands-free and cordless headset that works with almost all business telephones. You can get a copy of the Hello Direct catalog by circling Reader Service 162.

★★★

Our Marti RPU problem continues to draw suggestions. Dave Hebert has diagnosed many RPU troubles over the years, and offered some good suggestions. His first question: What kind of coax was being run from the receiver to the antenna on the tower — RG-8 or hardline? Are all the pigtailed made of "double shielded"

coax? (Contact your RF Specialties office for these; they have double shielded pigtailed custom-made for them, offered at a reasonable price.)

Are there any other users on the tower? Is this receiver part of a cross-band repeater, or is it hard-wired to the studio? Check how well the tower is grounded, and ensure that all the feedlines are grounded as well. Does the receiver use a bandpass cavity on the antenna line? And does the receiver use a preamp? Dave

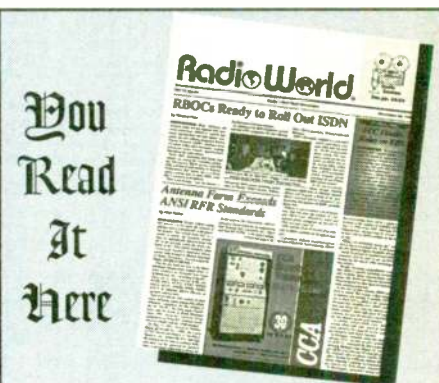
can also help isolate static noise from the tower, by providing isolation and a DC path to ground from the antenna.

Dave also had a comment about EAS antennas. We wrote about manufacturing a loop for receiving AM stations. One of Dave's monitoring assignments is a strong AM station. Instead of a loop antenna, Dave picked up a discone antenna. He routed the coax from the antenna through to all the receiver antenna inputs. It works great, because the AM station has such a strong signal.

Dave Hebert can be reached on line at dhebert@owt.com

■■■

John Bisset is a principal with Multiphase, a technical services company. Reach him at (703) 323-7180. Printed submissions qualify for SBE recertification credit. Fax submissions to (703) 764-0751, or send them via e-mail at WRWBENCH@AOL.COM



You Read It Here

Five Years Ago

More and more news is coming in on the fax machine, as agencies and individuals realize its advantages.

The local fire department has been faxing out news releases for roughly eight months now ...

At most radio stations, one fax machine is used for all news, sales and other station business.

"Fax Machines Offer Vital News Link"
by Gordon Govier
Aug. 19, 1992

Ten Years Ago

Response to RW's recent series on dial-up remote transmitter control has shown that there's a great deal of confusion among stations as to just what's legal under FCC rules.

There are rules on the books, but they can and apparently are being broken through the use of the latest in dial-up gear.

Broadcasters seem to be in a "Catch-22" situation, with the FCC saying "you can't do this" on one hand, and "but we know you can (or are)" on the other.

Editorial
July 15, 1987

added this last one. It has been his experience that sometimes preamps like to generate noise, just to have something to do!

Another important consideration: These receivers are single-conversion types, and they can receive interference on the "image" frequency. They are also prone to "de-sense" from other frequencies that were not meant to be received.

Dave also warns that the receiver may not be the culprit. Dave had a 450 MHz receiver, part of a repeater, develop the same type of noise on receive signals. He tried everything to isolate the source of the noise. One of the first things he tried was running without the antenna preamp. This made a significant improvement, but did not get rid of the noise entirely. He tried grounding and shielding everything associated with the repeater. Finally, out of desperation, Dave turned off the station's backup exciter, which was not on the air at the time. Suddenly, all the noise disappeared.

It seemed that the main and auxiliary exciters didn't like being close to one another in the rack. After Dave changed the wiring so the exciter was powered only when the aux transmitter was turned on, the problem ended.

As to the rain problem, a good cavity

Harris Looks at AM Modulation

Paper Scrutinizes Performance of Modulation Methods Into Different Antenna Conditions

Hilmer I. Swanson
and John L. DeLay

This article is based on a paper prepared by Swanson and DeLay of Harris Corp. for the NAB '97 convention, titled "Performance of Modern AM Modulation Methods Into Varied Antenna Conditions." Other viewpoints from readers of RW are encouraged.

In order to achieve the best possible signal quality and maximum coverage, it is important to understand how different modulation methods perform under varied antenna conditions. This article examines the performance of PDM and digital modulation into different narrow-band antenna conditions.

An ideal transmitter does not cause changes in the 30-10,000 Hz frequency range and does not require the signal to pass through a circuit with a non-constant group delay or non-flat frequency response. Any transmitter that has deviations in flatness and phase-linearity will cause spurious modulation peaks because the shape of a peak-limited waveform is changed. Any peaks of this nature add nothing to the average modulation level. Thus, the average modulation level must be lowered to accommodate for undesirable overshoots or peaks to prevent the possibility of overmodulation.

To achieve maximum loudness and fidelity, the ideal transmitter should allow 100-percent negative modulation without increased distortion due to overshoot. Any transmitter that exhibits negative overshoot will require the average modulation (loudness) level to be reduced to prevent overmodulation and the associated splatter.

An ideal AM transmitting system is designed as a system, from the audio input through the PA transistor to the antenna. When designed as a system, each part of the system can complement the other parts.

PPDM Modulation

In the late 1960s, Harris developed pulse duration modulation (PDM), a technique that offered improved efficiency and audio quality. Harris Polyphase (PPDM) was an improvement over the single-phase PDM approach. The design uses a four-phase PDM generator, which uses a switching frequency of 60 kHz resulting in an effective switching rate of 240 kHz. Because the PPDM design operates at 240 kHz, the group delay variation of the filter is less than in a single-phase PDM design.

A non-symmetrical RF load on a PDM or PPDM transmitter does not affect the PDM filter if the average impedance between the upper and lower sidebands is the same as the carrier value. The PA will generate distortion due to the non-symmetrical load just like any transmitter.

Digital modulation

In 1987 Harris introduced a design called "DX," which employs digital synthesis to generate the amplitude-modulated waveform. The design is unique in

at the transistors.

The TEE network was designed to add (-45) degrees to the bandpass network and presents a symmetrical load at the

(Figure 1), the distortion begins to rise sharply at 3 kHz. The PDM filter is no longer terminated into the correct impedance.

Under the same test conditions into the TEE network, the PDM transmitter distortion is much worse than that of the DX10. The maximum distortion at

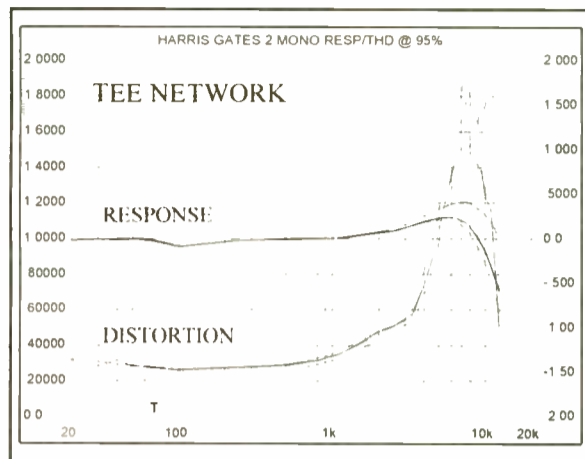


Figure 1: PDM Transmitter Response and Distortion

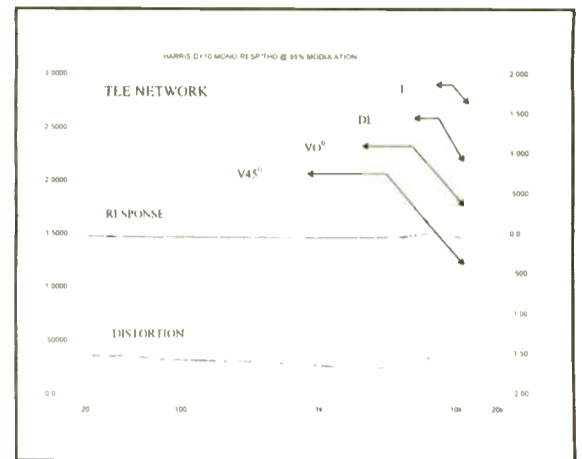


Figure 2: DX10 Response and Distortion

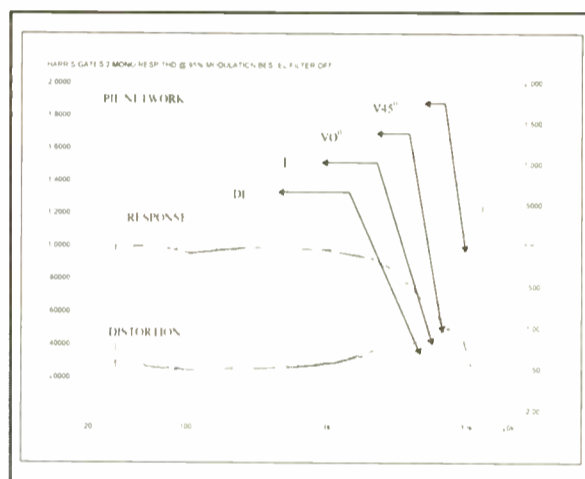


Figure 3: PDM Transmitter Response and Distortion

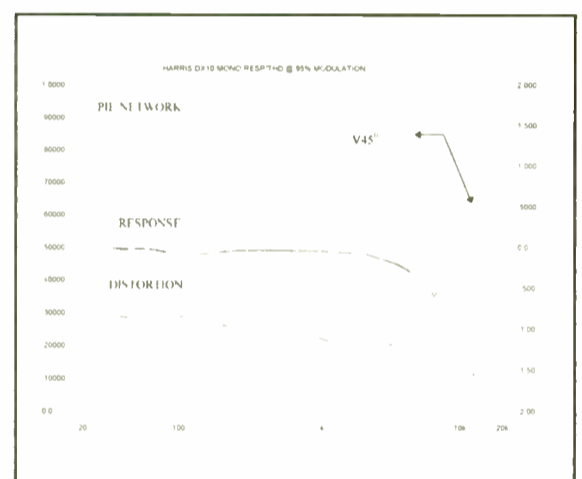


Figure 4: DX10 Response and Distortion

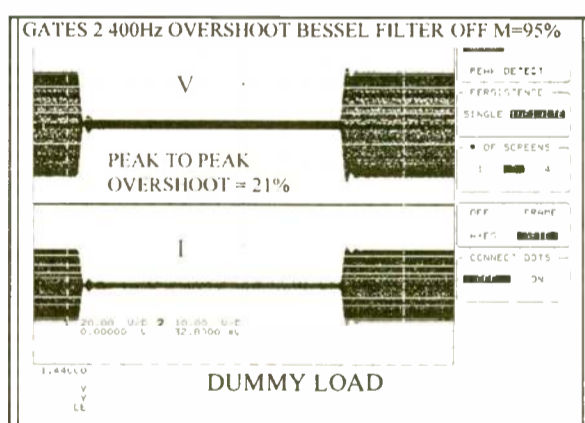


Figure 5: PDM Transmitter 400 Hz Overshoot Bessel Filter off, 95% Modulation

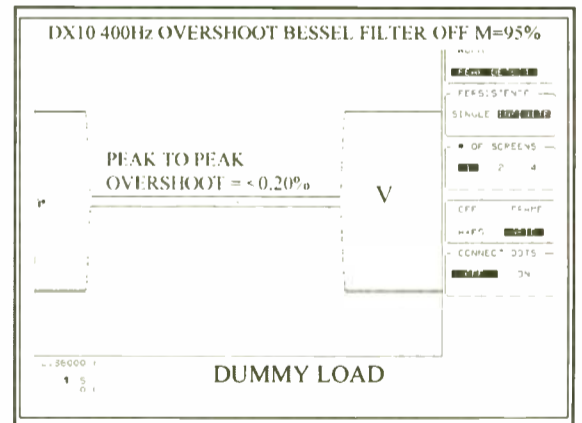


Figure 6: DX10 400 Hz Overshoot Bessel Filter off, 95% Modulation

that it does not have a modulator; the RF envelope and sidebands are generated by turning RF amplifiers on and off. Because Harris DX transmitters do not require a modulator or low-pass filter between the modulator and PA, many of the problems inherent in a PDM transmitter are eliminated.

Each transmitter was tested into four operating conditions: a 50-ohm load, Bandpass, PI and TEE network. The Gates 2 and DX10 have (-45) degrees of phase shift from the output of the transistors to the output of the transmitter.

The PI network was designed to add (+45) degrees to the bandpass network and is tuned to present a symmetrical load at the transistors. This presents a load that looks like a series RLC network

transistors, which looks like a parallel RLC network.

Each transmitter was tested for THD, frequency response, TIM and 400 Hz overshoot. Both transmitters were measured with an audio Bessel filter on and off. The transmitter performance of the DX transmitter does not change when the filter is switched off.

Refer to the distortion and audio response plots in Figures 1 and 2. Note that the distortion rises sharply at high frequencies. In Figures 1 and 2, the modulation level was set to 95 percent, with a reference frequency of 1 kHz. In Figure 2 the distortion starts to rise sharply at 7 kHz in the DX transmitter; this is due to overmodulation. Under the same conditions in the Gates transmitter

7 kHz for the DX10 is 0.4 percent, while the PDM transmitter is 1.8 percent. The sharp rise in distortion above 7 kHz in the DX transmitter is due to overmodulation, which is a function of the load. If the modulation level was readjusted to 95-percent referenced to 12 kHz, the distortion due to overmodulation was eliminated.

PI network performance

The frequency response of the transmitter into the PI network rolls off at high frequencies, as is the case with the distortion and response plots in Figures 3 and 4.

Overshoot is a critical performance measurement. It determines the maximum

See HARRIS, page 30 ►

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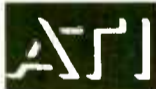
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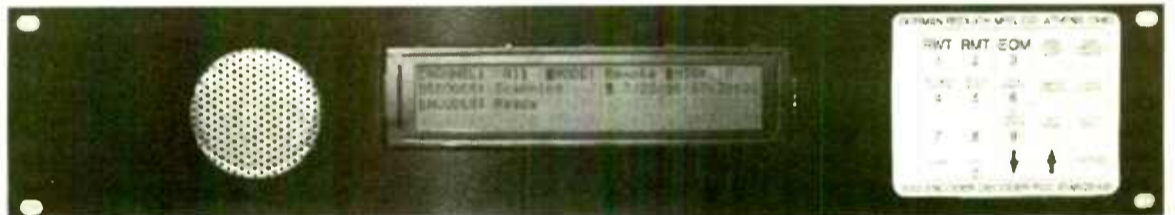
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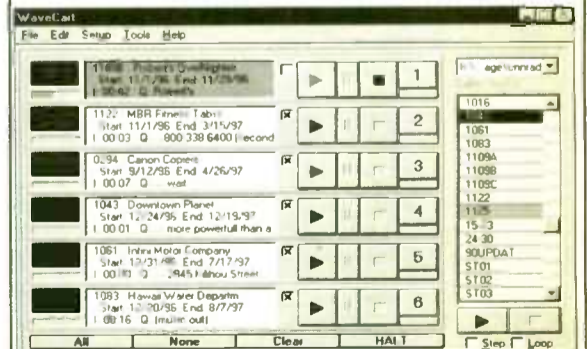
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READER SERVICE NO. 51

Harris Paper on AM Modulation

► HARRIS, continued from page 28

achievable modulation level without exceeding the 100-percent negative and 125-percent positive peak modulation limits allowed by the FCC. Because sideband power is proportional to the square of the peak RF voltage of the transmitter, a 5-percent reduction in RF voltage, due to overshoot, results in a 10-percent reduction in sideband power. The ideal transmitter exhibits no overshoot and will produce more sideband power, sound louder and provide better signal coverage. Equally important, overmodulation on the negative peak, due to overshoots, causes spectral splatter.

The PDM transmitters use an audio input Bessel filter, which partially compensates for the effects of the PDM filter. When the filter is switched on, the high-frequency information is attenuated; therefore, the signal will not be as intelligible.

DX transmitter performance does not change when the Bessel filter is switched on and off. It does not require the Bessel filter to cut off at as low an audio frequency as PDM transmitters.

The ideal transmitter can achieve 100-percent negative modulation without increased distortion or splatter. This is not possible if the transmitter has any overshoot. Figures 5 and 6 demonstrate the superior performance of a digitally modulated transmitter that has virtually no overshoot. This means that the modulation level can be increased to 100 percent under any load condition, without an increase in distortion or spectral splatter.

Conclusions

Performance and the accurate measurement of performance require that attention be paid to the following details:

The impedance presented to the tube or transistor should be "symmetrical."

Performance should be measured at a location along the transmission line where the impedance is also symmetrical.

Performance should be measured employing a current sample or a voltage sample depending on the type of symmetry presented by the load condition. If the impedance is similar to that of a series RLC circuit, a current sample should be

employed, because all the current flowing through a series circuit passes through the circuit independent of frequency.

If the impedance at the measuring point is similar to that of a parallel RLC, a voltage sample should be employed, because the parallel resistance component remains constant with frequency, therefore all the voltage appears across the load resistor. Using this measurement method, the output power will be equal to the voltage squared divided by resistance at all frequencies.

When measuring performance, the current and the voltage should both be observed so that the modulation is not increased to the point where one of the samples shows clipping at the negative peak of modulation.

The test data verified that both PDM and digital modulation work well into a perfect load. However, the PDM transmitter was very sensitive to load variations, while the DX transmitter provided superior performance into all load conditions.

Committee Keeps Tabs on Radio

D.C. Culbertson

Two years ago, the Radio Board of the National Association of Broadcasters formed a Future of Radio Broadcasting Committee. Its sole purpose: to monitor and report on the latest trends in radio broadcasting. This committee reports to Radio Board Chairman Dick Ferguson, who was chairman of the original 1995 committee.

Alan Box, who was vice chairman of the committee in its first year and has been its chairman for the past two years, has witnessed an evolution of many different and exciting possibilities for radio.

"We see exciting things ... (We try)



Alan Box

to keep an eye on the future. Most of this stuff is so far out that (our duties only involve) monitoring what's going on," he said.

Special interest in DAB

One topic of special interest to the committee is the development of digital audio broadcasting (DAB). The committee currently monitors how this is being introduced, especially in Canada and Mexico, and reports on the ability of receivers and personal computers to

broadcast data. Box said that the committee also is watching the development of in-band, on-channel (IBOC) DAB at present, because "it's such a hot issue."

Box says the committee relies on several sources for suggestions of topics to watch, particularly the NAB Science and Technology staff. But the biggest source are the committee members themselves.

"The committee members are expected to keep their eyes open all the time," he said.

The committee usually meets once or twice a year, and due to its nature, Box says there's rarely a need for an unscheduled or emergency meeting. The members decide how often they will meet, based on the quantity and type of new information or technological breakthroughs in a given period of time.

Who they are

As to the group's makeup, Box said, "I'm sort of told who my members are," because the committee members are appointed by the Radio Board Executive Committee. All the members are individuals who have specifically expressed interest to the Board about serving on the committee and show an interest in new technology. Members are generally broadcasting company executives, station managers and marketing directors from various markets and geographical areas. All the members belong to NAB but not necessarily to the Radio Board. "It tries to be a cross-section," Box explained.

Past committee members have included Nancy Widmann, president of CBS Radio, and Skip Finley, president and general manager of Albimar Communications, as well as managers of stations in New York and Los Angeles. The majority of this year's 14-member committee are radio station

presidents from small to medium markets.

In the Midwest and West the members are: William Kelly, WKBN-AM-FM, Youngstown, Ohio; Steven Linder, KWLM(AM)-KQIC(FM), Willmar, Minn.; Cathy Meloy, WBIG-FM, Washington, and William Shearer of KYPA(AM), Los Angeles.

New England, the Mid-Atlantic and the South are represented by one station each: William McElveen, WTCB(FM), Columbia, S.C.; William F. O'Shaughnessy, WRTN(FM)-WVOX(AM), New Rochelle, N.Y., and Martha Dudman, WDEA(AM)-WWMJ(FM), Ellsworth, Maine.

At press time, McElveen and Dudman were also running for vice chairman of the NAB Radio Board; elections were to be held at the NAB Board Meeting June 21-24.

In addition to Box, five members are executives with broadcasting groups: Ronald Davenport, Sheridan Broadcasting Group, Pittsburgh; Steve Dodge, American Radio Systems, Boston; William Figenshu, Viacom, New York; and Robin Martin, Deer River Group, Washington.

The committee also includes David Kantor, president of ABC Radio Networks, and two staff liaisons, Richard V. Ducey and John David, both of whom have served on the committee previously. Ducey is also senior vice president of the NAB Research & Information Group, and David is senior vice president of NAB Radio.

Box, who describes himself as "a victim of consolidation," has worked for EZ Communications in Fairfax, Va. since the 1970s, serving as its president since 1985. In April of this year, EZ was consolidated with several other companies to become American Radio Systems, for which he currently serves as vice president. He is also on the Board of Directors for American Power Systems and George Mason Bank.

John DeLay is AM product line manager for Harris Broadcast Division. Hilmer Swanson is Harris senior scientist and recipient of NAB's 1990 Engineering Achievement Award. He is credited with the invention of modulation techniques used in modern AM transmitters, including Pulse Duration Modulation, Pulse Step Modulation and digital modulation.

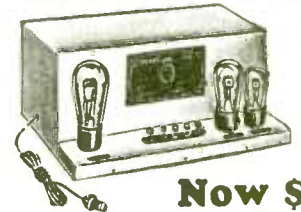
Copies of the complete paper are available from John DeLay. Fax a request to (217) 222-0581 or e-mail to hbd@harris.com

66 Years Ago

Reprinted from Radio World
Sept. 12, 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.

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Take Care in Your RF Planning

James F. Pinkham

Multiple-station antenna systems can solve a lot of problems, but they do require special care. The future of FM broadcasting may lie in these type of systems, which eventually will be built at many locations throughout the country.

An anecdote demonstrates the work involved. In 1989, I was called upon to consult and participate in the installation of a transmitter facility at a multiplexed FM antenna site in New Orleans. The first phase took several weeks, and involved the installation of a new Continental 35 kW FM transmitter, rigid transmission lines, dual Delta (Andrew-style) motorized coaxial transfer switches, and provisions for a two-bay auxiliary antenna two-thirds up the tower. The existing Continental 25 kW would be moved from its site in downtown New Orleans at a future date, to be used as an auxiliary. A Harris 20 kW transmitter, used as an auxiliary at the present site, was to be retired.

The platform was arranged so that both Continental transmitters could be mounted side-by-side. Conduits were installed for both disconnects. It only remained for the electrician to pull the wire for the second transmitter. Multi-conductor control cables, ready to be connected to the second transmitter, were laid back in the overhead cable tray, already wired to terminal boards in the control rack.

Railing problem

With Phase One complete, I returned home to await word of Phase Two. FCC authority was required for the station to operate from the new site. Once permission had been received, the station could operate from the new tower site, and transfer back to the old city site in an emergency, until the older Continental transmitter had been moved too.

The station managers were concerned that they would be without auxiliary facilities as soon as they started to move to the old transmitter across the Mississippi River, so the next phase of the project would have to be performed efficiently.

In 1990 I received word that they were ready to move. I had estimated three days would be required for the project. They had been operating from the new site satisfactorily. The new 35 kW transmitter and the old 25 kW unit were identical in size and outward appearance, except for an external power supply cabinet for the 35 kW unit. The antenna system input required 32.6 kW.

After making preliminary checks at the new tower site, we planned to get some sleep, to be ready to start with the movers at 4:30 a.m. Of course, Murphy's Law always seems to creep in. After signing off the old site, we made a discovery there. The concrete steps leading from the roof-top transmitter house to the floor below had steel pipe railings. They would not allow the transmitter to pass, on its way to the elevator. The railings had been added after installation of the transmitter in the 1970s.

We finally secured permission to remove the railings, giving assurances that they would be welded back in the morning. But the problem did delay us. It was well past daylight when we started loading the low-boy trailer in the street

below. The weather was clear. The mover's convoy left for the tower site about 11:30 a.m.

The 25 kW box slipped into place with less than 3/8-inch error in measurements. It was a perfect fit. The electrician started pulling primary power wires. I had removed the Multronics transmitter switcher from the old site earlier while the crew was disassembling the transmitter. I started making minor modifications to the switcher for the main/auxiliary antenna selector. A solid-state, remotely controlled transmitter switcher had been installed earlier. I connected the control cables and installed miniature plug-in relays required in the 25 kW. At 8 p.m.,

we were operating into the test load. At no time had the station been "off-the-air" for any reason!

The following day we cleaned up final details. Transfer switching was checked after midnight. Everything worked. I returned home.

Separation

The multiple-station antenna system is not the end-all to FM antenna height problems. The FM Table of Allocations must be adhered to in the relocation of Class C FM stations.

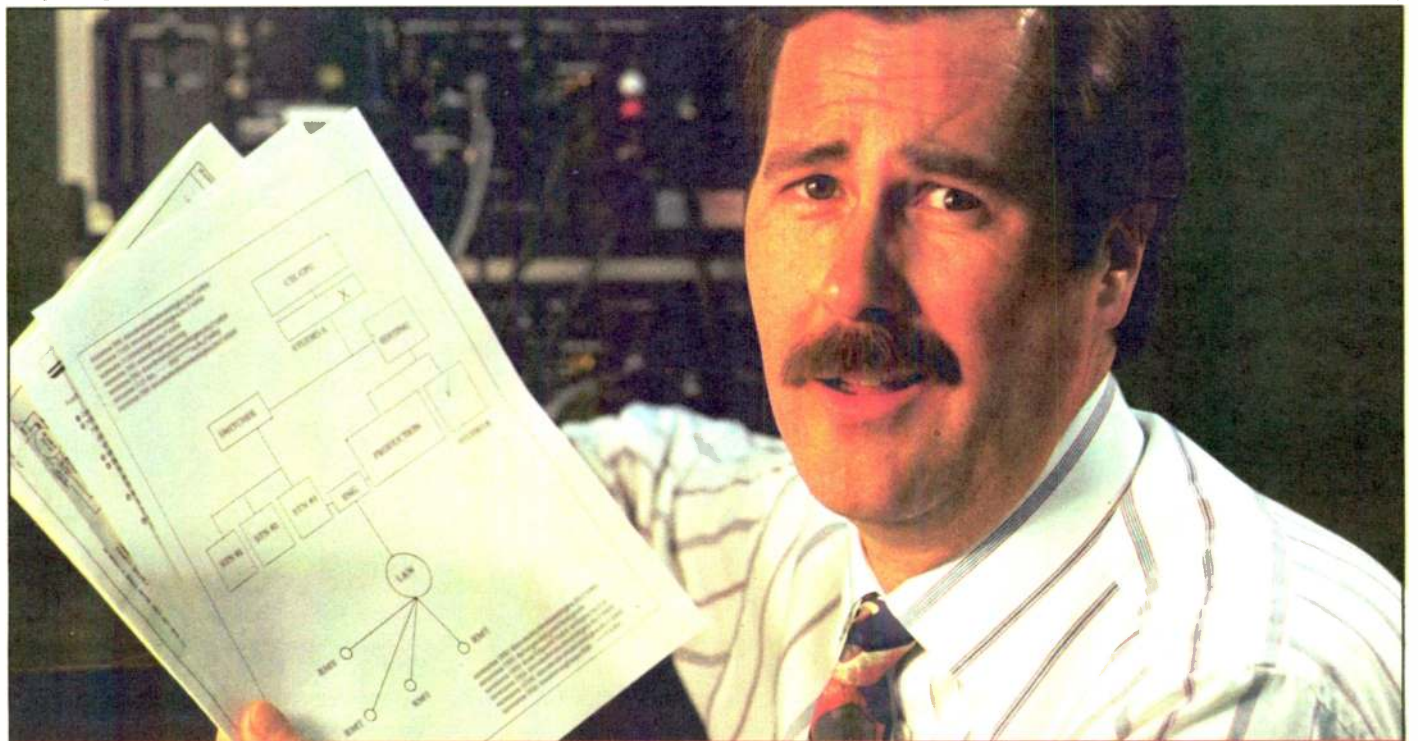
In Houston, this was not easy. Ten or 11 stations wanted to relocate to a multiple-station antenna tower outside the

main area of the city. Several could not make the move because prohibited short spacing would have resulted. Those stations were obliged to move to another site. Some stations moved from site A to site B, and others had to move from site A to site C.

Stations in other cities have encountered similar problems. Regardless of the height constraint for a Class C FM, separation is still the determining factor in allocation studies when the FCC considers a move.

The designers of multiple-station antennas create a system that radiates all of the signals from the same antenna, with the same center of radiation, hence the same height above average terrain. The radio receiver discriminates among carrier signals, tuning in only the desired

See PLANNING, page 56 ▶



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Mergers Create Demand for New Features From Suppliers of Traffic and Billing Systems

W.C. Alexander

From the early days of radio, the challenge of scheduling was handled manually. Orders from the sales department were fitted into open slots in the broadcast schedule by the traffic manager, a task he or she performed with pencil and paper, chalk boards, marker boards, acetate sheets — any erasable media on which the fluid broadcast schedule could be posted and updated many times a day.

Information needed by the sales department and management, such as available

slots ("avails"), daily sales activity and current billing figures, had to be extracted by hand. Often this was arduous, and often the information was out of date by the time the reports were typed.

Logs had to be generated by hand, typed on template forms that had to be updated to accommodate changes in programming. Last-minute changes were the rule, not the exception, and broadcast traffic managers no doubt helped boost the sales figures for Liquid Paper.

In those days, the job of traffic manager was frustrating. At times, it was like that of

a train yardmaster. Occasional derailments and collisions were inevitable.

At month's end, the business manager had to take the daily program logs, determine what had actually aired, cross-check the rates with the contracts, and generate invoices and affidavits. Managers often had to let mistakes pass, because it was too much trouble to go back to a client and explain that one or more spots had been overlooked in the billing.

In the mid-1970s, the introduction of the personal computer began to change the face of radio traffic and billing. Who can forget the Radio Shack TRS-80? We laugh at these machines now, but they represent a tool that took a lot of the pain out of running a radio station.

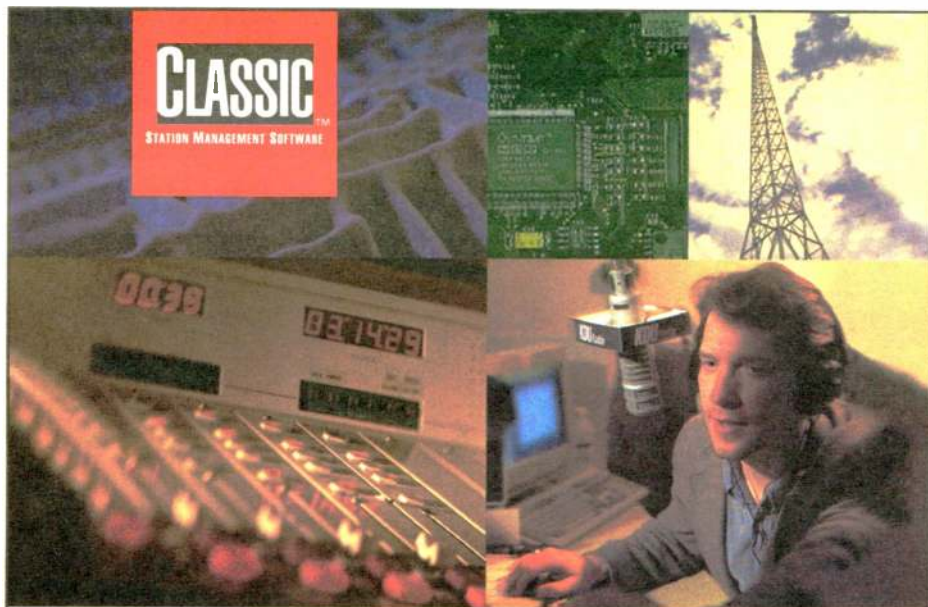
A few enterprising individuals saw this potential and sat down to write rudimentary programs that would do the basics of traffic management. Their early templates

more capable machines, many of these programs continued to evolve. A few of these survive, although they bear little resemblance to their early versions. Many more have come on the scene since.

Program power

Computers have attained unheard-of speed and capability at reasonable prices, and traffic and billing management software has grown with them. Many powerful programs are on the market. They perform the same basic tasks of those primitive programs of the mid-1970s, but they are packaged in more flexible and adaptable platforms.

Sales people and managers are now under tremendous pressure to perform, and the society in which we live demands instant, current information. Gone are the days of calling on the client several times, working out over a period of time what time slots are available at what rate. Agencies make "electronic buys," sending produced spots to the station by ISDN phone lines. Manufacturers of traffic and



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A/R SUMMARY: All stations					
ACCT#	NAME	STATION	CHARGES	CREDITS	TOTAL DUE UNAPPLIED
1020	A.F. Ellison	KLIN-AM	1014.80	-481.60	533.20 0.00
1130	All City Foods	KLIN-AM	425.00	0.00	425.00 0.00
1130	All City Foods	KEZG-FM	425.00	0.00	425.00 0.00
1401	Albert's Cars	KEZG-FM	4584.56	0.00	4584.56 0.00
1427	American Home & Ca	KEZG-FM	374.00	0.00	374.00 0.00
1430	Anial Hostess	KEZG-FM	401.88	0.00	401.88 0.00
1432	Anigos & Partners	KEZG-FM	1298.80	0.00	1298.80 0.00
1434	Anigo Santores	KEZG-FM	1315.04	0.00	1315.04 0.00
1437	Anish State Janbor	KEZG-FM	540.00	0.00	540.00 0.00
1442	All About Dogs	KLIN-AM	67.50	0.00	67.50 0.00
1511	Anderson Buick	KEZG-FM	729.30	0.00	729.30 0.00
1649	Armstrong Windows	KLIN-AM	688.50	0.00	688.50 0.00
1666	Applefee's Shoes	KEZG-FM	1036.15	0.00	1036.15 0.00
1773	Attic Ghosts	KEZG-FM	50.00	0.00	50.00 0.00
2066	Barney's Fife Corp	KEZG-FM	1303.90	0.00	1303.90 0.00
2078	Batteries R Us Ltd	KLIN-AM	640.00	0.00	640.00 0.00
TOTALS (all):			271729.51	-18160.80	253568.71 -28547.33
↑↓ / Tag / +,- / ←-Detail / Switch view / Database... / Print... / Exit					
ACCR[6.01]			[04-07-97 Mon 7:33a]		

The Datastar StarCaster Accounts Receivable Report

allowed traffic managers to key in orders as the sales department brought them in. The program would then assign the spots from the order to the correct time slots. When all the orders were entered, a log was generated on a slow, noisy printer.

These early programs were inflexible, and most were written for specific stations. Most changes still were made with Liquid Paper, pen and ink. But these programs made scheduling tasks much easier.

Billing too was simplified greatly; the software did the lion's share of the work. Invoice forms were fed into the printer, and all the hours of typing invoices and affidavits were done by the computer and printer.

With the advent of newer, faster and

billing management software have had to adapt to provide station sales, management and programming personnel with the information they need when they need it — sometimes several times a day.

Compatibility with computer automation systems had become another challenge for traffic and billing software. Electronically loading the logs into the computer automation system is a vital requirement. The challenge comes in making the platforms talk to one another.

Get together now

Consolidation is the byword in 1997. Jan Schad of SMARTS in Emmetsburg, Iowa, said the most frequent customer request

See TRAFFIC, page 33 ►

► TRAFFIC, continued from page 32

comes from groups of stations — either duopolies, mega-polies or regional groups — whose managers want a way to consolidate or centralize traffic and billing systems and make the stations operate efficiently together. A group may have 10 stations, for example, and a sales order will place spots on three of the stations. The SMARTS Office System handles this situation.

In the software business, customer requests often lead directly to new features. At SMARTS, for example, recent new features center around reporting. Managers and sales people want co-op reporting, financial reports, sales activity reports and variations, for use in the office and the field.

"User-friendly" is an important goal for developers. Complicated program packages with long learning curves are not popular at stations. Schad said the SMARTS design uses standardized keystrokes and on-screen menus to simplify operation and eliminate on-site training.

Datastar in Lincoln, Neb., tries to help the buyer get started without substantial initial expense. Sidney Hubbard said its EZ-Lease program is designed to accommodate traffic and billing management needs of stations without the usual up-front costs. For \$49 per month, a single station can get started with its StarCaster system. Groups of two or three stations can get the program for \$59 per month, and the system accommodates up to eight stations for \$79 per month.

Datastar's choice of features also reflects the importance of reporting in radio today. StarCaster is equipped with features for

reporting up-to-the-minute avails, billing/credit histories, projections and receivables with aging. Provision is also made for auto co-op copy editing.

Hubbard said StarCaster is compatible with all major players in the computer automation arena, and several others as well. Datastar staffers will write a custom interface for any system with which it is not already compatible.

Another feature of Datastar's system: It can export data to remote locations via modem. This feature allows central billing, so group owners can take advantage of economies of scale.

WANs and the 'net

Suppliers of computer products must update their offerings constantly to remain competitive. Craig Martin, director of development for RCS in Scarsdale, N.Y., said its focus in recent years has been adding new tools and features, and improving speed, interface and user friendliness.

An open architecture makes RCS programs compatible with programs from other vendors that also use Microsoft-compliant architecture, such as Microsoft WORD for Windows, Lotus 1-2-3 and other accounting packages and e-mail applications.

Looking ahead, RCS aims to make enterprise-wide radio group operation transparent. With the trend toward consolidation, the capability of corporate entities to control traffic and billing information from individual stations will have increasing importance.

Some of this access and control will take place over WANs, and more will take place via the Internet.

Martin said RCS is working to create better support tools in the form of different types of reports and report forms. These improvements target sales and management teams who must make decisions in the field.

John McDonald of Columbine JDS in Golden, Colo., said the traffic and billing management packages "Columbine" and "JDS1000" have been enhanced to accommodate the growing number of LMAs and multiple station groups. Better, simpler features, more accessories and applets, better speed, user-friendliness and efficiency have been the development goals.

McDonald said users can look forward to an application that will create a megagroup data warehouse, a strategy to provide warehouse capability and connect the local stations in a group to a centralized corporate office.

To connect with digital music and automation systems, Columbine JDS products interface using the PowerLink software package, which translates between the different platforms. This interface gives the traffic software the capability of working with virtually any computer automation system that can import traffic data.

Computer Concepts, based in Minneapolis, produces computer automation systems in addition to traffic and billing management software. This dual product line places the company in a position to provide turnkey services to stations.

Rich Habedank of Computer Concepts

said the company started at the beginning of the current wave of computer automation systems, so it could set the standard for log exports. All major manufacturers of computer automation systems support this



Well-designed traffic systems can keep your staff smiling — at least as seen in this cartoon from SMARTS.

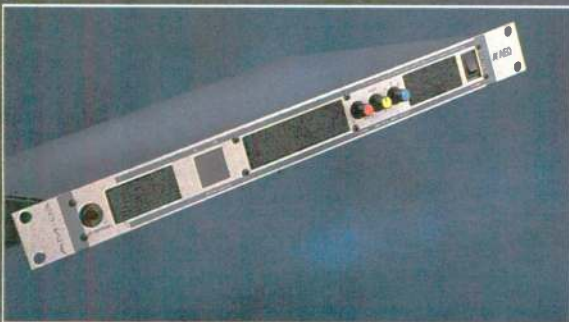
generic log export format, he said.

The new Visual Traffic (V.T.) traffic and billing management package from Computer Concepts is a true 32-bit application designed from scratch for the WindowsNT and Windows95 operating platforms. The system uses an open architecture and will "talk" to other Microsoft-compliant applications. This capability allows users to access V.T. logs, reports and data using their favorite Windows word processor, spreadsheet, accounting package or e-mail program.

The redesign and expense involved were necessary, Habedank said, to accommodate the trend toward consolidation. The company decided this would be better than

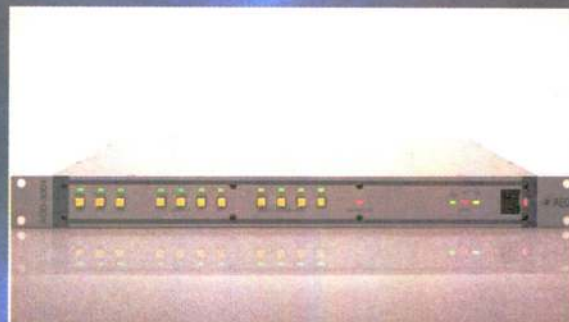
See TRAFFIC, page 34 ►

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USER REPORT

Traffic Is a Breeze With CBSI

Dena P. Karaszi

In 1984, I was introduced to traffic software from CBSI on a Wang PC with large 8-inch floppies. Over the years, I graduated to the hard drive, and today I am on a Pentium 133 MHz computer with 16 MB of RAM using the new Classic software package from CBSI.

My work is now done on a PC from my home for three radio stations. Two are local Fresno stations; the third station is in Modesto, Calif. When dialing in, I connect to a Netware 4.11 network that operates on two HP Netserver LH Pentium 166 SFT-III servers (mirrored).

This allows me also to operate the MediaTouch systems for Fresno's news radio station, KMPH-AM-FM and hot talk station, KFRE(AM). Connections will soon be available that will enable me to send logs over phone lines into the Digilink system at KTRB(AM), Modesto.

Image enhancer

The CBSI Classic software package has allowed me to increase my efficiency, thereby enhancing my value to my employer. The speed and versatility of this software allows me to enter orders, rotation patterns, program logs and special information for billing, such as co-op

in the Traffic section.

Following this section is the Accounts Receivable (A/R) area and the Co-op area. Once I know the account information for an order is in A/R, the rest of the



Creating Logs and Tracking Orders With CBSI Classic Software

work is done in the Traffic section.

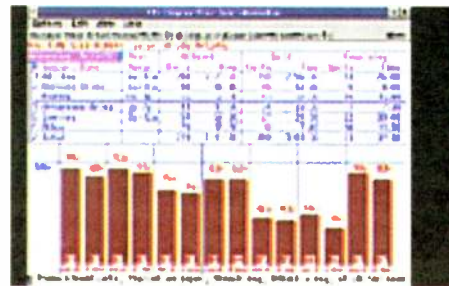
Here, up to 500 orders can be entered per account. Each cart rotation plan can include up to 100 carts, but the actual number of cart rotation plans is unlimited.

There are 26 lines of dayparting information per order and for each line more than one daypart can be entered. The software gives the traffic director the tools needed to get the job done. The orders can also be coded to print more than one copy at invoicing time, even if they involve co-op.

During the billing cycle the traffic information is transferred into the A/R

system. Once the invoices are run in A/R, the system will print a message if there are any errors or co-op. Errors are corrected and reprinted.

The system automatically transfers all



billing information from the A/R into the Co-op system. All the traffic director has to do is print it.

Keeping track

Other features include the ability to track daily, weekly or monthly pending and active orders along with new book-

ings and cancellations. This enables the director to print and save sales tracking reports.

Reports can be printed from all three areas of the system. The user can create report designs and save them in the traffic section. Notations can be designed to print on invoicing such as "spot missed and moved to ..." and "spot make-good from ..."

The CBSI software makes remote traffic and link-ups to digital systems simple. It is now possible to centralize traffic and accounting in one location and operate stations across town or another state.

I would recommend this software to anyone who has ever observed their traffic director resorting to Post-it notes to keep track of special account needs. I have used CBSI software for more than 12 years and I believe that CBSI is the finest software available for the needs of today's station operators.

■ ■ ■

Dena P. Karaszi is traffic manager for KFRE(AM), KMPH-AM-FM and KTRB(AM) in California.

For more information from CBSI, contact the company in Oregon at (800) 541-3930; fax: (541) 271-5721; or circle Reader Service 188.

Traffic Systems Keep The Cash Pumping

► TRAFFIC, continued from page 33

to "Band-Aid" its existing DOS-based program. Computer Concepts is providing V.T. to its existing traffic and billing software clients.

There is, Habedank said, a "Year 2000" problem with the existing DOS-based package. He said the company will fix this before it becomes a problem in the field. The new V.T. program will make the transition without difficulty.

Evolution

Progress in software is typified by the offerings of CBSI of Reedsport, Ore. Wes Lockard of CBSI said his company's products have come a long way from its beginnings in the late 1970s. Most notably, he said, flexibility has been improved, allowing CBSI to adapt its software to individual station needs and formats. Hundreds of user-configurable options give the programs a custom look and feel.

Extensive reporting capability is one feature of CBSI products, along with the power to handle different kinds of sales orders, copy instructions and scheduling. The company is responding to user requests for better information flow, standardization of information at the corporate level and compatibility with different computer automation systems.

Lockard maintains that traffic is the conduit between sales and on-air operation. CBSI is trying to raise show managers and sales people what information is available and how to use it.

Not all companies in this arena produce traffic and billing software. TAPSCAN of Birmingham, Ala., produces applications for sales and management that interface with traffic and billing to produce information that sales and management can use.

Lucius Stone said the company got its start writing software for research. Current broadcast applications extract and massage information from other traffic and billing management programs, to produce reports on sales figures, avails and yield management.

TAPSCAN's "Grid One" application extracts supply and demand data from traffic and billing, and suggests rates based upon availability. It assists management by allowing it to run scenarios, and develop and print rate cards. "SalesScan" is a management reporting engine that shows the station sales manager up-to-the-minute sales information. It uses pending sales information along with probabilities to develop projections while linking with traffic and billing for actual sales data.

Marketing

For the most part, the manufacturers of radio management software sell to, and deal directly with, their customers, rather than work through broadcast equipment dealers.

Customer contact is essential. In fact, these manufacturers can expect to hear frequently from their radio customers.

In the world of traffic and billing management software, there are plenty of choices. Some of the packages cater to large-market stations or multi-station groups, others are ideal for small markets or stations on a limited budget. Whichever program you choose, you can put away the acetate sheets and eraser. This is, after all, the '90s.

■ ■ ■

Cris Alexander is director of engineering for Crawford Broadcasting in Dallas. Contact him at (972) 445-1713 or via e-mail at cbceng@compuserve.com

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USER REPORT

Columbine: KIIS of a Decade

Chris Peaslee

In my experience as a traffic manager in radio, I have seen the Columbine Commercial Trafficking Software housed on both the IBM System36 and the IBM AS/400.

Here at KIIS-AM-FM in Los Angeles, the Columbine Software resides on an AS/400.

Today, any radio station that uses Columbine Software on the System36 — 1970s technology — is bound to hate it. And I mean that because of the hardware, not the software.

Long-time chess player

I have been using Columbine for the past 10 years. In the traffic department of KIIS-AM-FM, we utilize various tools from Columbine to actively work together with other departments within our two radio stations to maximize commercial inventory.

Working a log is much like playing chess. Columbine provides us with a big advantage to winning the game. The two most important parts to the chess game are an Advertiser Activity Report and the Skim. Without them the game could not

be played, yet with them the game is made easy to win.

Building blocks

Mike Callaghan, our network administrator, coordinates with our network consultant, Terry Hardy, to create the most effective system for our needs. Terry recommends and we currently use Novell NetWare for SAA 2.0 as the gateway to the AS/400. In the future we plan to go native after installing TCPIP on the AS/400. Terry feels this will create a more robust point-to-point connection

rather than using NetWare for SAA as a gateway, basically eliminating the use of the file server for our connection to the AS/400.

We also use PCs with Windows 95, creating a great environment for multi-tasking with additional terminal displays and other programs. Rumba Access/400 Display has been our current software used to communicate with the AS/400 and Columbine on both Windows 3.1 and Windows 95. Recently we installed NS/Elite Display to replace Rumba/400 and we are testing its ability on my computer. We all agree that these solutions



See COLUMBINE, page 37 ▶

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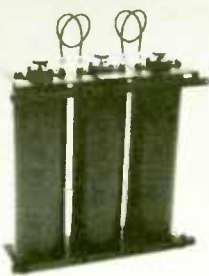
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USER REPORT

Automated Logging, No Hassles

Larry Wilkins

A large number of stations have opted for unattended operation since it was approved. The type of automation system is important, but traffic and billing are just as important.

The most important thing to look for is compatibility. Traffic and automation systems must be able to "talk" to each other.

Datacount, based in Opelika, Ala., developed its Darts system in the early 1970s. The company has continued to make changes and updates to keep up with automation technology. Darts now can communicate with 25 automation systems.

The Digilink link

Our company, Colonial Broadcasting, operates four stations using the Arrakis Digilink system — two live assist FM and two automated AM stations. Darts accepts orders and generates logs for all four stations. Generated logs are then

DATAACO

exported via a LAN to the appropriate control room Digilink.

After the log is imported, the next day's schedule is built automatically and ready to be played on the air, either manually on the FMs or automatically on the AMs.

Digilink, as well as most other automation systems, generates a "played" log that has a list of everything played with the exact time. This file is transferred back to the traffic system over the same network. Darts uses this file to reconcile the log by comparing what was scheduled to what actually played.

Changes in spot times are noted, missing spots are placed in the makeup file and new spots that do not exist on the Darts log are displayed for operator actions.

These actions, performed by the traffic department, consist of adding the spot from a contract or makeup file or disregarding the spot. This allows accurate invoices to be generated for the advertisers.

Keeping it simple

All this seems quite simple and it should be. The last thing needed is an overcomplicated operation. The use of a LAN has proven beneficial. Our traffic department is three floors up and can send and receive the data easily.

Production and news rooms are also on the LAN to allow the transfer of audio files. The same operation could be performed using diskettes if there was not a network.

The Darts system not only performs these operations, but can generate all types of reports, such as avails and sales projections.

We recently added a network server for the office computers. This allows

See DATACOUNT, page 38 ▶

Columbine Wins the 'Chess Game'

▶ COLUMBINE, continued from page 35 are some of the best in the industry.

The main features of the Columbine Software can be used effectively to streamline the traffic department as well as provide powerful sales reports for the sales managers and the sales staff.

Nightly ritual

Nightly here at KIIS-AM-FM we execute a job process called Link. Link has various duties, one to perform assignments during the night for the system to execute. Following is a list of the assignments we submit into Link:

Backup

A dedicated procedure to back up daily Columbine files. This is crucial to the operation of any traffic system.

Traffic purge

Daily purge ... Purge is run nightly to size files creating space for the next day's activity, reorganizing files to make records more accessible, cleaning up canceled records and compressing daily activity.

IMS - Inventory Management System

It is the most important procedure of the Columbine Software. It maximizes spots/contracts, breaks/program capacity, with rules/perimeters to facilitate a detailed availability skim summary, and schedule patterns to generate a trial log. IMS has five basic rules to follow: Section Number, Spot Rate, Issue Date, Unit Value and Length. Here at 102.7 KIIS-FM and XTRA Sports 1150AM Los Angeles, we base everything on the first three.

Invoice Times Report

A listing of invoice times for our accounting department to reconcile daily logs.

Contract List or 'C' List

Used by both our accounting and continuity departments to locate information for advertiser numbers, agency estimate codes to track copy, product codes, contract dates and agency/direct accounts.

Skim Report

Identifies inventory, avails, capacity, exceptions and section numbers on a daily basis for the traffic department and the general sales manager to track our inventory.

Advertiser Activity Report

Used in conjunction with the Skim to evaluate rotations, front-load spots, and manage inventory at the report level for trial log processing. This report also is used by the general sales manager and the sales staff.

Uninstructed Spot Report

Displays advertisers that require copy instructions for the following day's log. It also provides a quick reference for group numbers and number of spots, and of course is the reference source for copy needs.

Facility Order Report

The continuity director uses this report, after copy has been entered into the system via Enter Copy Instructions (ECI).

Business Activity Report

Fluctuation in dollar amounts are shown for each advertiser. The general and national sales managers maintain accountability for each order entered.

Print Contracts

The last assignment entered into Link, provides printed contracts from orders.

The system also features other reports and tools in which you might be interested, such as the Sales Analysis Report, a

Using the AS/400 to run the Columbine Software has made it considerably more effective to manage inventory 52 weeks into the future.

great sales management tool. This report can be displayed, printed or downloaded to a PC. The sort commands are the power of this report. Sort sequence highlights are: revenue, pacing, historical comparison, average unit rate, revenue summary, then summarized by account executive, agency, advertiser, product, daypart, contract and demographics. This report also allows you to enter budget information and/or goals for your sales staff. Another powerful tool on the Columbine System for your continuity director is Media Inventory, the heart of our carting system. I've spoken to many traffic personnel in the city, and some still use a carting system made up of grease pencils and plastic. Columbine has had this software for many years and it has proven effective at KIIS-AM-FM. Also included is Percentage Copy Rotation to easily perform complicated rotation instructions.

Considerably more

Using the AS/400 to run the Columbine Software has made it considerably more effective to manage inventory 52 weeks into the future. Before we switched to the AS/400, and the release of the Unified System Software, Columbine ran on the System36, which was reliable but not efficient. We experienced a hard-disk failure during that time, leaving the system non-operational for four days. We were able to operate effectively using Columbine's Advertiser Activity Report to reproduce our daily logs. Once the system was operational and the backups restored, we experienced only two discrepancies. Columbine has helped KIIS-AM-FM react and survive changes quickly in the market, allowing us to achieve our revenue goals.

Suggestions to Columbine

As with anything, there is always room for a wish list. Here are items I feel would help the station run more effectively:

Sales Analysis Report:

Page breaks for account executives
Descending and/or ascending order for historical activity
When running an "E" purge the contract to be logged as titles would remain

Programming:

Additional units in a break instead of creating a separate break for a fifth unit.

Log:

Log Discrepancy Report that would evaluate hour by hour, rather than just in a break

Copy:

To be able to enter, maintain, and display copy on a contract together in one screen.

Columbine recently proved itself again to be user friendly. In less than three hours, I was able to create our new radio station, XTRA Sports 1150AM Los

Angeles, using Columbine's detailed instructions. Upgrades to the Columbine Software are made with ease, due to detailed instructions and tech support available to answer questions.

We are excited to have the Los Angeles Dodgers joining us for their 1998 season on XTRA Sports 1150AM Los Angeles, and I am confident that the addition will be achieved just as smoothly. Scott Butterfield, at Columbine's Forms Plus Promptly, responded quickly and effectively to change our logos, when KIIS was acquired by Jacor, as well as the addition of XTRA Sports 1150AM Los Angeles.

Overall, Columbine Software is the most efficient and effective way to traffic commercial spots for a radio station. As for Columbine's future, check out Paradigm ... it's hot.

■ ■ ■

Chris Peaslee is traffic/Web manager at KIIS-AM-FM in Los Angeles. The phone number there is (818) 295-6446.

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Stations Prepare for Year 2000

James Careless

It's being called the "Year 2000" or "Millennium" problem: the chaos that could ensue when computers attempt to cope with the transition from the year 1999 to 2000.

The problem is this: many older computers and established software packages run on internal "six-digit date formats"; that is, they show the day, month and the last two digits of the year, as in "12-31-99." This means that, when 1999 ends and 2000 begins, their internal clocks will say that the date is 01-01-00 — that is, Jan. 1, 1900.

The reason these systems use the six-digit date format goes back to the early days of mass computing, said Glenn Lisle, editor of the Ottawa computer magazine "Monitor" (on the Web at <http://www.monitor.ca>), and a former radio newsman himself.

"Back when a lot of the big systems were installed in the (19)60s and (19)70s, saving a few kilobits here and there of memory space by using only the last two years of the year date was a major saving when the date came up a lot in computations and databases," he said.

However, this shortcut has left this data open to complete chaos when the last two numbers of the year revert to zero-zero in the year 2000. That's why software programmers now "have to go through literally millions of lines of code and change two-digit references to four-digit references," said Lisle. Otherwise, their systems will crash.

Chaos theory

Obviously, the implications here for business are staggering, and radio is no exception. For years now, the industry has relied on computers to manage traffic logs and customer billings. Lacking the ability to know what millennium it is, these systems may fall into chaos at the end of 1999.

For instance, a billing system could become confused, accidentally deciding that a bill due Jan. 1, 2000 should have been paid at the start of 1900. Not only will this give the station controller nightmares, but it "can cause a lot of anxiety for your customers as well," said Lisle, "if any invoices get out with 100 years overdue notice on them."

Traffic and billing systems won't be the only ones affected. So too will on-air automation, as these systems also need to know what day and year it is to accurately perform their functions.

One brand of software that is currently vulnerable to this problem is Selector, a music scheduling system, which is produced by RCS Radio Computing. It's being used in about 4,000 radio stations worldwide.

"Our problems aren't too serious," said Bill Webber, product manager for

Selector, because the software's own dating system isn't based on the conventional six-digit system. "The only real issue for us is a user interface one, the interpretation of the year that the user types in. Currently throughout the program, we have a two-digit year field, as most programs do. In certain places we have expanded that to a four-digit field."

To date this upgraded version of Selector is still in the construction

need to change will be replaced, so if we have any computer problems that will be taken care of," he said. "As far as our LAN (local area network) system is concerned, that's already addressable to the year 2000."

However, people at many smaller stations feel vulnerable, because more often than not they're working with older software and hardware. "We're really the end user, and it's really up to the suppliers to provide the solutions," said Lincoln Zeve, president/CEO of WHYL(AM) in Carlisle, Pennsylvania.

"So we're really at the mercy of them in what they supply to us." Added Zeve, who said he's been waiting for an update to WHYL's Arrakis DigiLink live assist software, "it is my suspicion that they're working feverishly on it; certainly my hope (is) that they are."

Bob Groome, senior technical sales with Arrakis, said that the company hopes to release an upgrade to the system, containing a fix for the Year 2000 problem, in 1998.

Immunization

So how can broadcasters immunize themselves from the Year 2000 bug? First, they should check how outdated their computers actually are, because there's a definite line between systems that are at risk, and those that aren't. In "some of

the very old machines — early 486s — the BIOS (basic I/O system) is only a six-digit date code," said Larry Lamoray, vice president of sales and marketing at ENCO. Because of this, these units will be affected by the Year 2000 problem. In contrast, newer computers and ENCO's own DADPRO digital audio delivery system are immune, because they're based on the eight-digit date format.

The second step broadcasters should take is to check with vendors to see if their hardware/software needs upgrading, and if the upgrades actually exist.

Third, they should be looking for these solutions now, rather than later. "Make sure your billing department has a current version of whatever software they're using," said Glenn Lisle. "If it's a custom application, get someone in to fix it now, because there's a lot of demand, and very little talent out there."

"The other thing is, any other applications that involve the use of a live date plucked off the computer's clock/calendar can be affected," he said. "Really, the person in charge of your computer should be aware of this already."

Will broadcasters heed these warnings? It's hard to say. Asked about his own station, Lincoln Zeve quipped that "like many broadcasters, we probably won't worry about it until November of 1999."

Hopefully Zeve's comments are proven wrong. If not, there may be a lot of radio stations crashing at the stroke of midnight, New Year's Day 2000. Hardly the best way to start a new millennium.



It is my suspicion that they're working feverishly on it; certainly my hope (is) that they are.

—Lincoln Zeve

stage, said Webber. "We're about 80 percent of the way through making our products Year 2000-compliant. I know we have 950 days or whatever left."

Of course, newer computers and software won't suffer this problem, because they've been built with the millennium in mind. That's why they use eight-digit date formats — 12-31-99, for instance — allowing them to tick into the next 1,000 years without a hitch.

Concerns great and small

Stations equipped with such products can afford to be complacent about the Year 2000 problem. That's why, when asked if he had any concerns about the turning of the millennium, John Lyons, chief engineer of WAQX-FM, Manlius, N.Y. (in the New York City market), said, "none really, because everything here is fairly new and that problem's been resolved in these computers."

WABC(AM), New York, Chief Engineer Bill Krause is similarly sanguine. "By the year 2000, whatever we

Sharp Darts For Colonial

► **DATACOUNT**, continued from page 37

Internet access and has a gateway into certain areas of the Darts system so sales managers can examine different reports without interrupting the traffic people.

Darts and Digilink have several features that work well together: automatic cart rotation, commercial start and kill dates and the ability to schedule spots with regard to customer types.

Start and Kill dates are helpful when a

DARTS™

client is having a weekend sale, with different spots running on Friday, Saturday and Sunday. Traffic can schedule the spots with the same cart number, and production can add cart rotation and start/kill date information. Spots will air only on the days they are supposed to.

Helpful customer service

Like a lot of other operations, the members of our engineering department had to learn computer and networking on their own. Darts and Digilink have outstanding support people to answer your questions. We recently updated the network system to v.7 Lantastic. It took less than two hours to change 10 units.

Traffic and automation systems must be able to 'talk' to each other.

One programming lesson we learned is that the schedules must agree with each other. The Digilink has a blank log template with spots sets. When you set up Darts, the time and length of the stopsets must be the same as in the Digilink. If programming or sales managers decide to make a change, both systems must be changed.

Sales managers like the system and, even though logs have to be imported and built, spots can be added or deleted within 30 seconds of airing. It also gives announcers the ability to customize breaks with promos and jingles along with the spots.

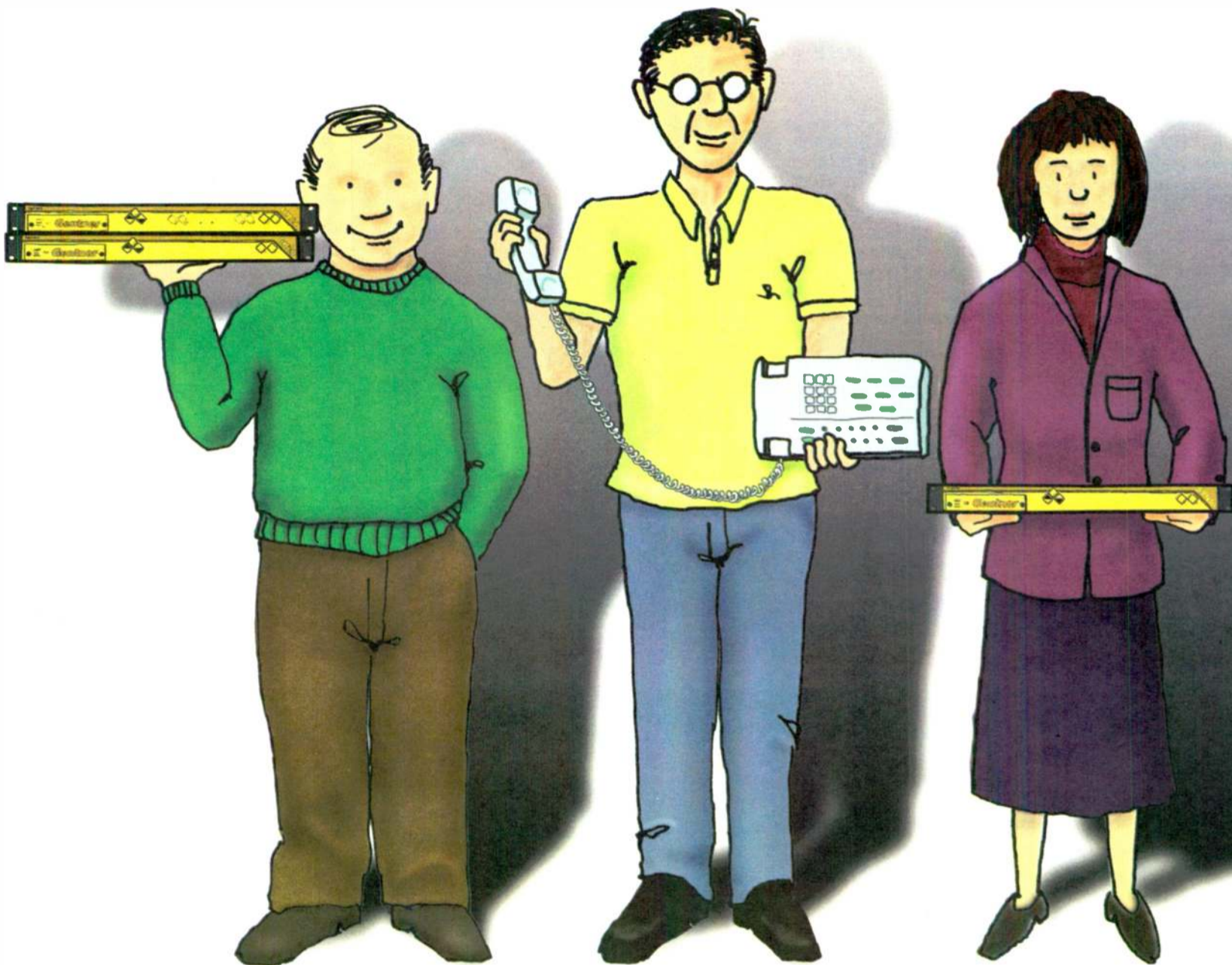
Using Darts interfaced with Arrakis makes for a smooth operation. It sure beats stacking up carts all over the console.

■ ■ ■

Larry Wilkins is director of engineering for Colonial Broadcasting in Montgomery, Ala.

For more information from Datacount, contact the company in Alabama at (334) 749-5641; fax: (334) 749-5666; via e-mail at marketing@datacount.com; visit the company's website at: www.datacount.com; or circle Reader Service 137.

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*O.K., it's not new but the TS612 is still the best multi-line broadcast telephone system available.

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Page 48

Radio World

Resource for Business, Programming & Sales

July 9, 1997

Harvey: 'I Love Advertising!'

Paul Harvey received the first Radio-Mercury Awards Lifetime Achievement Award in New York on June 11. It was an appropriate setting in which to salute Harvey, who was accompanied by his wife Angel. More than 1,000 radio people were on hand at the Waldorf-Astoria hotel to honor the best commercials of the year.



From his first days in radio in 1933, working at KVOO(AM), Tulsa, Okla., Harvey has conducted a lifetime love affair with the medium. Today more than 21 million people tune in every week on affiliates of the ABC Radio Networks, to hear "the most listened-to radio personality in America."

Paul Harvey's acceptance remarks were a highlight of the awards that night. RW is pleased to print them with his permission for our readers.

Good evening, Americans.

I thank you for that marvelously

hyperbolic introduction. And Angel thanks you for this chance to get dressed up, and to stay up long beyond her husband's bedtime.

I love advertising. Accentuating what's positive!

Some days I'm not certain which is of more lasting significance: a change of tribal leaders in Zaire — or a one-time purchase that will filter the allergies out of your house.

What better "news," than that I can end those leak spots on the garage floor permanently for two dollars?

However menacing the world's truce-breakers, troublemakers and terrorists, the commercial portion of every program is certain to include some good news.

There is available now: a tire that will outlast your car — a sleep surface that suspends you on a cushion of air — and there is drugstore food for your fragile bones. A window shade on a roller that unloads your truck for you.

Which is of more lasting significance: that somebody swims in a shark-proof cage from Cuba to Key West — or that the finest Swedish lawn and garden power tools now have permanent roots in the United States, making work easier and more productive for us all?

There's now a shaver that fits any beard, any face.

So much of what the world calls "news" is written in either mud or blood. Will any of it outshine or outlast a magic music box of unprecedented fidelity? Heartburn healing that works all night?

You gifted wordsmiths of our nation's advertising profession have done more than anybody to raise our nation's standard of living by raising our nation's level of longing.

No profanity

And at the same time, almost unnoticed, while many programs get tastelessly profane, most ads don't.

Watching television, we've been fast-forwarding through the wrong part.

your clients know who you are — to those of you who commit yourself to a client because you personally believe absolutely in your client's product — thank you. I know what that sometimes costs.

But the reward is enhanced professionalism for us all.

I was uncomfortable about accepting something called a "Lifetime Achievement Award," quite aware that I've not yet earned that. To me this recognition from such esteemed colleagues means rather that a country boy is King of the Hill for tonight.

Now — for what it's worth ...

I remember Angel's father — in his



Paul Harvey, center, shares the moment with his wife Angel and presenter Charles Osgood.

I am almost as proud of what our advertising profession does *not* do, as for what it does. "Paul Harvey News," to the sometimes dismay of ABC's salespeople, does not accept for sponsorship any product which I cannot recommend with left-brain logic.

I realize that the ad business is first a business. Decisions are often based on professional craftsmanship rather than personal commitment.

But to those of you — and you and

90s — had coal-black hair and was riding jumping horses. Energetic, vigorous and virile. Yet, each birthday the family insisted on a reunion dinner, which they always whispered might be "Dad Cooper's farewell dinner."

Well, he ended up having outlived just about everybody at that table.

And this is fair warning to you *pitchmen* warming up in the bullpen: Longevity runs in the family.

Good night.

A Beautiful Opportunity To Resurrect a Format

Lee Harris

If you traveled up and down the FM dial in most major markets 25 years ago, you might have run into as many as five "beautiful music" stations, running up giant shares with a mix of syrupy instrumentals, choral vocals and announcers who seemed to be on prescription sedatives.

These stations were relatively inexpensive to run and practically printed money. Yet, about 15 years ago, with very few exceptions, these stations vanished.

Growing older

The reasons are not difficult to comprehend. The format originally was placed on FM when that side of the dial was regarded as an economic wasteland by many operators. When FM became dominant in the late 1970s, these same operators realized they could reach younger audiences and command better

rates with other formats.

These stations flushed huge cumes and enormous time-spent-listening numbers to pursue younger ears. Some of the stations evolved into successful "lite" operations. Others have been searching for a successful format ever since they bulk-erased their Schulke and Bonneville automation reels.

Some say the slot formerly occupied by "beautiful music" has been occupied by "new age" or "smooth jazz" stations. Phil Stout disagrees.

Former vice president and creative director for Schulke Radio Productions, Stout said that in today's cutthroat radio market, there is not only room, but a crying need for classic "beautiful music." And Stout is ready to make it happen.

It's a miracle

As an independent music consultant with Joe Capobianco's Cross Country

See BEAUTIFUL, page 42 ▶

It Takes A Village

Boston station WXKS-FM, KISS 108, continued its successful concert series, with all proceeds benefiting The Genesis Fund.

The fund provides care for children in the New England area with birth defects, genetic diseases and mental retardation. This year's concert, held May 31, raised an estimated \$50,000.

Listeners turned out for the all-star concert line-up, running the gamut from '80s hit-makers to rising stars. Almost 20,000 people attended.

Jon Bon Jovi performed songs from his pending solo album. Other artists included Shawn Colvin, Lisa Loeb, the reunited Night Ranger and Susanna Hoffs, former lead singer of The Bangles.



Station DJs also took to the stage for a rendition of The Village People's "YMCA." Morning man Matt Siegel (shown) helped out with the letter "Y" from atop his steed.

The KISS concert series has raised a combined \$550,000 for The Genesis Fund in 11 years.

— Chris Hamaker

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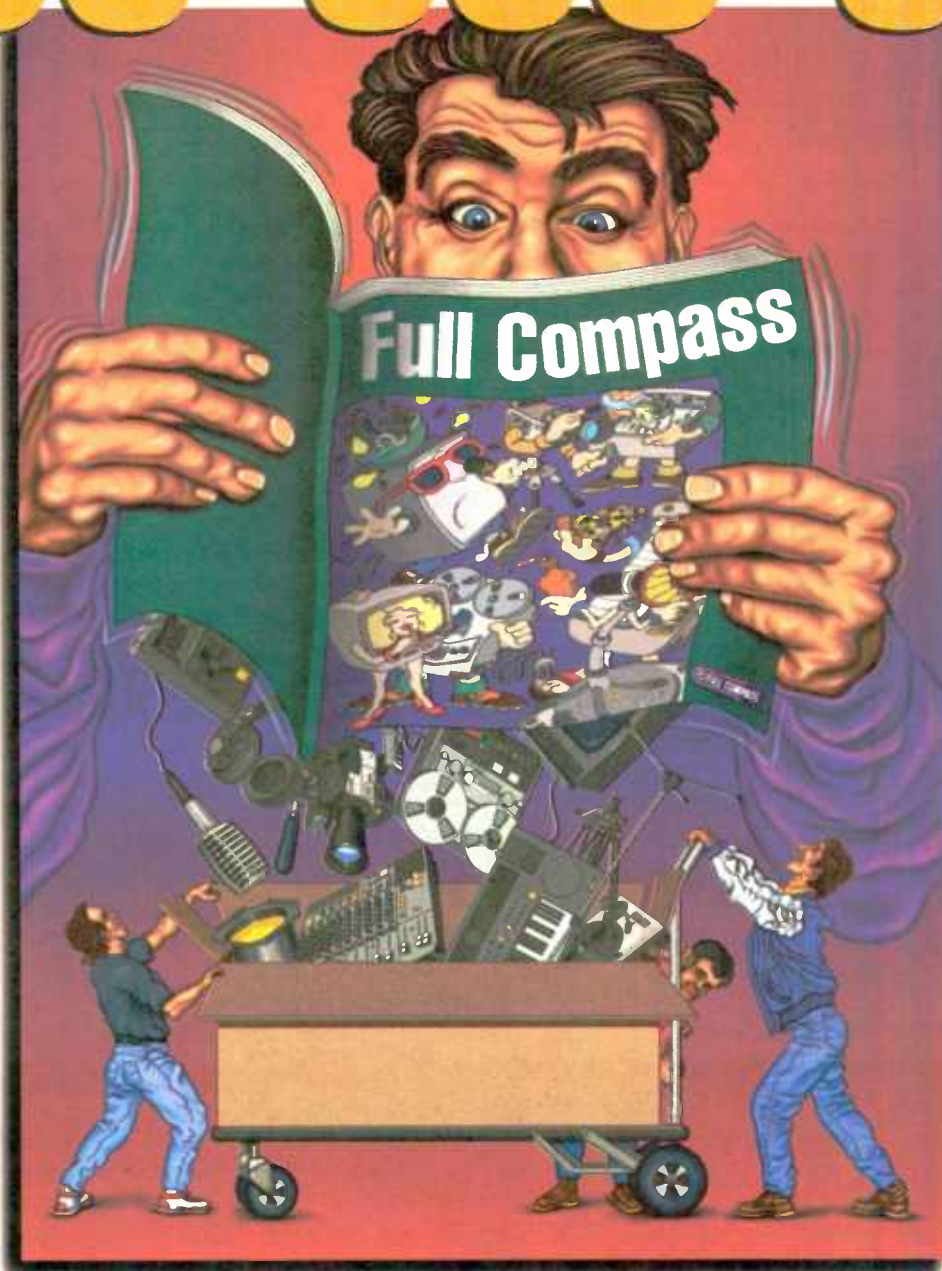
LIST 1650.00 **Call For Price!**



Shure FP42

Four XLR transformer balanced mic/line inputs and two XLRs out make this mixer ideal for mixdowns in video editing suites or anywhere a portable high quality stereo mixer is required. Other features are pull-pot cueing in all inputs, low cut filters, mono/stereo switch, Mix Bus linking, headphone amplifier, tone oscillator, switchable limiter, phantom power and dual VU meters.

LIST 1240.00 **Call For Price!**



Shure M267 Field Production Mixer

Features include switchable limiter, phantom power, LED peak indicator, 1/4" headphone jack, battery check function, tone oscillator, mic/line switches on all 4 inputs and outputs, low-cut switches, mix bus jack and much more. Battery or 120/240 Vac power. Option: Rack mountable with A268R.

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Shure M367 Mixer

Improving on the success of the Shure M267 microphone mixer, the M367 incorporates all the M267 features plus 6 XLR inputs, extremely low noise operation, 2 XLR outputs, detachable power cord, 2 headphone outputs, 12 and 48 volt phantom power and a two position Mix Bus. Battery powered or 120/230 Vac and rackmountable with the A367R.

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Beautiful Music Bounces Back

► BEAUTIFUL, continued from page 40

Communications, Stout has seen this supposedly dead format perform miracles.

Stout points to the success he and Capobianco have experienced over the last five years with "Music Choice," a direct-to-home satellite audio service. Beautiful Music has consistently ranked as one of the top formats out of the 30 offered by the service. Stout said there's no reason it wouldn't work over the air as well.

"The format I'm proposing is definitely retro. I'm talking about pop orchestras and instrumentalists performing works by Gershwin, Rodgers and Hammerstein, Bert Bacharach and the Beatles. A return to melody! We would not play Yanni or John Tesh. No wall-to-wall sax and synth playing music that sounds exactly like



Phil Stout (left) and Jim Schulke, at SRP in New York, 1975

what you just heard."

Stout admits that what he's describing is what one could hear all over the FM dial 25 years ago, but he insists it still has a place on that dial at the dawn of the 21st century. "This music, these arrangements, are hummable. The music fits the mood for whatever you're doing without jarring the senses. Its perfect for out-of-the-home listening environments."

Among those inclined to agree with Stout is Danny Crouse, station manager of WRSA(FM), serving the Huntsville, Ala., market.

Beautiful 97, as the station is known, is about as close to a classic beautiful music operation as you'll find these days.

"Some people might want to call it elevator music, but you really wouldn't hear this music in an elevator. It can vary from Nelson Riddle to Richard Clayderman. We play a lot of Richard's stuff. So, we do the instrumentals, but we mix in appropriate up-to-date vocals. The idea is to appeal to a great variety of age groups."

WRSA does that, consistently ranking in the top tier of Huntsville stations, but Crouse said that is also a function of the fact that the station doesn't sound sleepy. "We run CBS news at the top of every hour, and carry several of their features throughout the day. We also do sports pretty heavy on the weekends.

"We try not to forget the major elements of any radio station, so weather is a big deal," he said. "We have satellite weather here in the studio, and people know that if there's a problem with the weather, they can tune us in and we'll be right there with it. We proved that the other day when we had a tornado right in the middle of downtown Huntsville. We were all over that."

This is not exactly what Phil Stout has in mind. "I envision a wall-to-wall music approach where the music is the personality," he said. "Other elements should be kept to a minimum to ensure success."

The time has come

With group operators hunting for available formats to place on their fourth or fifth FM in a market, Stout feels his time may have come. (This is the same theory proposed by Tony Rudell, head of SW Network's classical music service, Classic FM.)

Stout said he has been in contact with three smaller station operators who have expressed interest in giving "beautiful music" another chance. Whether he'll actually get the opportunity to experiment on those stations remains to be seen.

Stout acknowledged that many consultants and syndicators will be quick to dismiss his proposal for any number of obvious reasons. But experience has shown that great and successful radio often comes from ignoring what the experts say.

Lee Harris is morning anchor at all-news WINS(AM) New York, and a former station owner. He also is president of Harris Media, a website design and hosting firm. Contact him via e-mail at lee@harrisnet.com



Phil Stout (right) is shown with renowned composer, conductor Robert Farnon in London last year.



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PERSONALITY PROFILE

Longtime DJ Casts Net Afar

Dee McVicker

The face of radio may be changing, but not the voice.

Consider the long-time radio voice of Nick Scott. One moment the voice is ID'ing an oldies station, the next it's making lively conversation on a country station, and still later, it's extolling the virtues of a product for a spot to be carried over the Internet to a radio station hundreds of miles away.

"There are eight radio stations in one building, and I work for all of them. One day I'm on the country station saying, 'Coming up, it's Alan Jackson.' The next, I'm on the rock 'n' roll station saying, 'Coming up, it's Pink Floyd.' And at my home studio, I'm sending spots over the Internet," said Scott, a one-time gainfully employed disc jockey turned part-time DJ for eight stations and an over-the-air turned over-the-Internet spot producer.

"I'm kind of Nick Scott everywhere these days," he mused.

The voice is the thing

Never mind that station consolidation and automation have turned many potential radio jobs into vapor, or that those remaining are all located in the same ZIP code. Scott maintains stations still want his voice, even if they no longer need his physical presence.

"Stations need voices, not people," he said. "Just like the Jones Satellite Network services a lot of stations with programming, why shouldn't the disc jockey be able to do that too? And that's what I'm doing, is farming out to other markets in exactly the same way."

In addition to running a DJ business for local events and working a morning shift at Reynolds Communications' eight-station complex in Cheboygan, Mich., Scott started Spots on the Net to broaden his earning potential and cast his net further.

His wife, who also worked in the radio business as a program director, and seven-year-old son round out the voice talent of his upstart company. And the Internet carries his radio commercials to places heretofore unreachable from Michigan.

"I can move a 60-second spot in less than a half an hour. Compare that to FedEx," Scott said.

Scott maintains a file transfer protocol (FTP) site rented from an Internet Service Provider to ferry WAV audio files, and more recently, AU files over the 'net to radio stations. "(They) e-mail us the script, we'll cut the spot, post it to our FTP site and the radio station can pick it up double-click easy the next day." FTP programs are available for this

► SCOTT, continued from page 42
purpose at Internet software sites such as TUCOWS (The Ultimate Collection of Winsock Software). Scott typically records spots in linear PCM at 44.1 kHz sample rate, 16-bit stereo.

A 30-second stereo spot as a WAV file can take up 5 MB or more of hard disk space, taking 45 minutes to an hour to download over the Internet, depending on modem speed. He's recently begun to experiment with converting WAV files to AU files in order to reduce file transfer time to a fraction of that, and so far has had some success.

The shock wave

Scott admitted that, for all his foresight into the future of radio production, the station consolidation trend came as somewhat of a surprise to him. He's one of the few in the industry who can boast of steady employment — 20 years, in fact — with one broadcast company.

"When they sold out, they introduced me to a new word called duopoly," he said, with not a trace of ill-will toward the station owners. The experience taught him a thing or two about himself, and about the profession.

"Actually, what they gave me was 20 years of good employment," he said.

Still, when consolidation came knocking on his door, it brought with it long stretches without pay and introduced him to commuting in the '90s sense of the word: "I was driving six minutes to work, then I needed to drive 11 minutes, and now I drive an hour to get to a radio station because there aren't any jobs left nearby."

Now, his day typically starts at around 3:30 in the morning, in time to make the commute to Cheboygan from his home studio in Petoskey and arrive for an early shift starting at 6 a.m. Every day is different. He can sit behind the mic at any of the eight stations, which run the full demographic gamut, from oldies to new age.

These include jazz stations WJZJ(FM) and WLJZ(FM), both FMs, one covering Traverse City and the other covering the Cheboygan and Petoskey areas; classic rock FM stations WGFM(FM), WGFN(FM) and WCKC(FM) for the Traverse City, Cheboygan and Petoskey areas; country station WMKC(FM); nostalgia station WCBY(AM); and oldies station WIDG(AM).

Exception to the rule

Jones Satellite Network feeds the stations a diversity of programming, with live talent from 6 a.m. until 6 p.m. on most. With the exception of Scott, talent is exclusive to a format or station, all working together in close proximity.

"It's the opposite of what happened 15, 20 years ago, when everybody was splitting off because the FCC regulations told them you can't have more than one station in a particular market," said Shawn Sheldon, the production director for Reynolds Communications, and who now is producing commercials for eight stations instead of the one or two that were under his charge a few years ago.

Most of the talent are on site at the eight-station complex, although one of the news directors will begin broadcasting from his home studio using a Marti link soon. Scott, too, after his morning gig, heads back to his home in Petoskey to begin his shift as a spot announcer from his home studio. Complete with a stereo console, two reel-to-reels, a CD player, a cassette deck, and, of course, a computer, the studio can do just about



Nick Scott also owns DJ's North, a disc jockey service.

any voice-over work that's required.

It was built by Scott to shore up a need for spot production at the eight

stations for which he works, and is drawing the interest of other stations, primarily small- to mid-sized, around the coun-

try. The reason has as much to do with how stations have consolidated as with why they've done so.

"When you're dealing with a major advertiser, then he can afford to have the kind of huge production house that money can buy. But what about the advertiser who has only \$600 or \$700 to spend this month? He can't afford to shell out and have a commercial produced for \$500 to \$1,000, and in most cases he doesn't need that. What he needs is a nice, clean, well-delivered voice-over music spot, the bread and butter of the industry, what we're set up to do," said Scott.

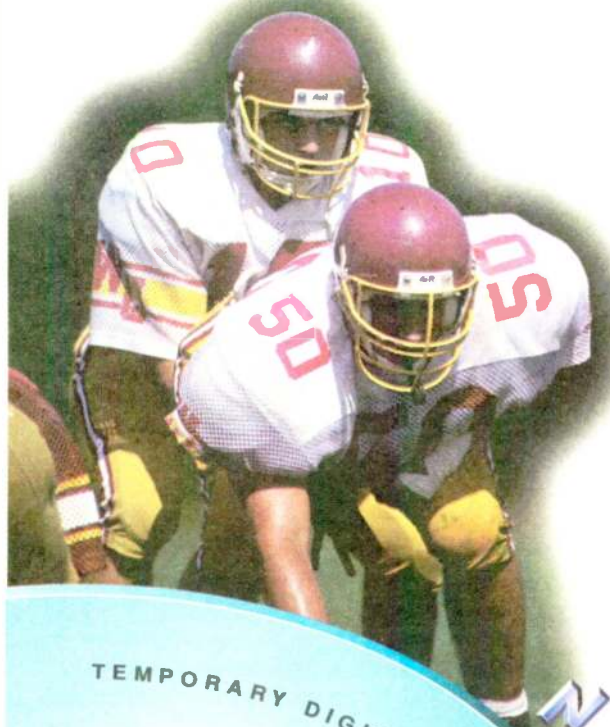


Contact Spots on the Net and Nick Scott at fastspot@freeway.net

Dee McVicker is a freelance writer. Reach her at (602) 545-7363, or roots@primenet.com

Digital audio links

for broadcasters



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PROMO POWER

Scintillating Specialty Shows

A Change in Your Regular Programming Content Provides Variety. Do the Risks Outweigh the Rewards?

Mark Lapidus

I hit the scan button on my car radio last Sunday morning. Like any good broadcasting geek, I know the dial by heart. There is no need even to look at the frequencies. Usually,

More and more I'm lost on the weekend. Those stations that I know and love have temporarily become something else: They are airing specialty shows.

Whether local or syndicated, these shows have advantages. Yet you pay a

price when you air them. Specialty shows can leave your core listeners wondering whether your station has changed format.

The typical goal of these programs is to bring in fresh cume and more TSL ("Hey, if they like this, maybe they'll listen for the whole show!"), and to promote a certain image your station desires.

A station playing "Today's Best Country" might want to do a Top 40 Country Countdown program featuring the hottest hits in the land.

Hard to find

A secondary reason to do specialty programming: In many markets, good part-timers are to find. It seems logical to air a professionally produced product that matches the format. There's nothing wrong with this thinking. It's just that the vast majority of radio programmers today have been trained to believe that these facts are etched in stone, rather than just good guidelines for certain situations.

Here's where it gets complicated. In highly competitive situations, your station may do better by sticking to what it does the rest of the week, rather than braving new waters.

Follow me here. I'm Joe Potatoes. It's Sunday night, I wanna rock. I turn on the leading rock station and it's doing a two-hour Jewel concert. Jewel is doing an acoustic version of a song I've never even heard before, so I immediately punch up my second choice. They're airing an interview with Yoko Ono. Not for

me.

Before giving up, I turn to station three, which is actually airing its usual format. I like it. I stay. I leave my radio on that station because I'm lazy. When I turn on my radio the next day, I'm not listening to my usual station, I'm listening to my third choice. Hey, I kind of like this all-music morning show. Maybe I should listen to this more often!

Am I saying that you should not take

I simply question the notion that weekends provide the only opportunity to be different. When everyone else is being different, consider being the same.

chances with specialty shows? Absolutely not! Many are highly entertaining. I simply question the notion that weekends provide the only opportunity to be different. When everyone else is being different, consider being the same. When everyone else is being the same, consider being different.

For example, your adult numbers during weeknights are low. You're not alone; most adults are watching television. There is a chance that if you air something unusual, you may nab a few hardcore fans of whatever you're programming.

Whenever you air specialty shows, the key to success in generating an audience is proper promotion. This takes effort, but it can pay off. If you know you're airing an hour of Mary J. Blige, it's important to note this fact on your music

log. It will remind the jocks to promote it when they play her hits. As you get closer to airing the special, increase the frequency and schedule recorded promos adjacent to her songs.

Swing for the bleachers

Want to hit a home run?

- Use a little print trade to promote the time and date of this show.

- Tie in a local record chain and put a flyer up next to Mary's CD.

- E-mail Mary J. Blige fans who have entered her as one of their three favorite artists.

- Air a "commercial" on your AM all-talk station, promoting this special.

Sure, these are time-consuming and a bit unorthodox, but if you want to cut the clutter, you have to make the effort.

Conversion: Radio personnel typically do something else poorly: convert

people. We frequently don't even attempt to convert listeners of specialty show into our core. Most stations slap on syndication, and the only item with local content is a legal station identification.

Shame on us! Every break (in and out of spots) should at the very least contain station call letters, whether spoken by an announcer or the show's host, or through a jingle.

Even more important, every break should give the listener a reason to try the station at another time: "Tomorrow morning at 7:30, Kevin and Kim are giving away \$101. Just listen for your social security number here on Oldies 101." One jock can be assigned to voice these weekly as part of his normal production.

Local vs. Syndication: I'm a fan of local radio. That being said, if a syndicator can do something better than you can, go for entertainment value. With small staffs, it's just not realistic to produce a volume of quality shows.

However, this doesn't mean you can't focus on one each week. Most countdown shows can be replicated locally. It's great hearing a morning talent a little out of context, having fun acting like Casey. This also allows them to promote their own morning show. Because these can take time, have them do the voice-tracks only, with a producer putting the show together.

Several modern rockers around the country air performances of popular bands from their recording facilities. The station invites local audiences, then tapes, edits and airs the results. It's compelling, fun local radio. This also requires approval and assistance from the record companies.

The most dangerous thing about airing specialty shows is scheduling them and then doing nothing. Every three months, examine them.

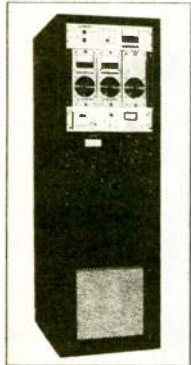
Think about what your competitors are doing now. Think about how you can better promote your shows. Think about Joe Potatoes, who may want to hear his regular station instead of three hours of the Grateful Dead.

Sorry, Jerry, but not tonight.

■ ■ ■

Mark Lapidus is president of Lapidus Media. For marketing and programming consultation, call him at (703) 383-1805, or e-mail him at lapidus@erols.com

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World Radio History

Ensure Long-term Survival

Part one of this series discussed the importance of creating a "staff family" as one of the keys to long-term success and covered what some stations are doing to achieve that crucial sense of belonging necessary for long-term survival.

Another critical key to success is effectively managing for change. Long-lived stations are geared and managed to continually adapt to an ever-changing market. Their ability to adapt to changes in the world around them is one of the survival strategies. Changing political environments, changes in listeners' taste, social changes, and technological advances continually remold the market and the station's ability to reach it.

Stay tuned in

Successful stations excel at keeping their feelers out and staying attuned to the shifts and changes in the needs of the listeners, advertising clients and community. They use several techniques, instead of just one (such as the Arbitron rating) to learn about changes in their markets. In order to stay in sync with the market, surviving stations must evolve by altering sales strategy, programming and staffing to adjust to the changing market.

The managers of these stations place high value on innovation instead of devotion to policy or status quo. They

encourage staff to develop new ideas. Not all of them will be usable. However, if the staff members feel they can add to the creative pool of thinking, more ideas will surface. Not all ideas will be successful after they are implemented. Successful managers know that you cannot bat a thousand all the time. They also know that important information from failed ideas often becomes the basis of the next successful concept. Removing



the fear of punishment if an idea fails fuels the creative thinking process.

Managers must give people the freedom to develop ideas and thus encouraging innovation. Staff members must have freedom from constant control, from micro management, and from punishment for failures. Successful managers look to unexpected people and places for fresh ideas. The receptionist or the engineer sees the world from a different perspective and may have an idea for a great promotion that no one else has thought of. Too often, people get so involved at

the micro level they lose the total picture perspective. Learn to listen to those with a different perspective.

Look before you leap

New ideas need to be tried in a limited scope before leaping off the cliff. Evaluating a new sales idea on a limited basis provides the opportunity to determine how well the listeners and clients respond before the idea is implemented on a full scale. Completely revamping the station's promotions or programming before a trial or extensive research has been completed could court disaster.

Jim Galant is the program director of WMAL, a long-lived successful AM station in Washington, D.C. Galant said, "We give each new idea a fair chance for success. Usually we give a new program three to four books before we decide to keep it, expand it, or discard it."

Three conditions are necessary for stations to exploit new opportunities.

1. All staff members must have the ability to talk with each other at the station, in the broadcast industry and in the station's market to gather information and discuss new ideas. The freedom to interact and talk with each other, clients and listeners will speed up the learning process of important changes.

Managers need to ensure their people

interact with other industry experts. Training and development programs such as those at industry trade shows are excellent opportunities to help staff interact with other broadcast professionals to share and explore new ideas and concepts. This interaction helps employees move into new endeavors and develop new skills that will be needed for the future. Getting out to talk with others

The receptionist or the engineer sees the world from a different perspective and may have an idea for a great promotion that no one else has thought of.

about what they are doing often is the catalyst for new ideas that may work for your station. Consider the impact the Internet is having on the broadcast industry. Encouraging your employees to evaluate how to link into this media for your station can move you into new profitable areas you never tried before.

2. Some department heads and staff members must have the ability to implement new thinking and skills at the station. The ability to inspire and train others in new technology and/or a new direction for the station will be vital to maintaining your current market and possibly expanding into others. Your jock who is always on the Internet may be able to encourage and train other staff members to get involved. Together they may brainstorm a special niche for your station on the Internet.

See MANAGER, page 48 ▶

Zamboni Road Trip Makes 'Ripley's'

Sharon Rae

I've got a funny story about an even funnier word: "Zamboni."

Pennsylvania June 3.

"It was great!" Bosh said of his journey. "We did a couple of live broadcasts along the way. We did the morning

JIM BOSH, A RADIO DISC JOCKEY at "W4 COUNTRY" in Detroit, Michigan, DROVE A ZAMBONI ICE SCRAPER 587 MILES - AVERAGING 19 MPH - from Detroit to Philadelphia, Pa., TO SEE A STANLEY CUP HOCKEY PLAYOFF GAME! (May 31 - June 3, 1997)

©1997 Ripley Entertainment Inc.

For those readers who aren't from a state where there are only two seasons — winter and not winter — a Zamboni is that giant mutant-machine used to clean off the ice at skating rinks. And now, the story.

Jim Bosh is a Detroit Red Wings fan. He's also the morning man at W4 Country (WWWW-FM) in Detroit.

"We wanted to do something to support our team in the Stanley Cup finals against the Flyers," Bosh said. "We were taking calls, one thing led to another — I don't know who said 'Zamboni' and who said 'Jim is going.'"

And the rest, as they say, is history. He left for Philly in May, but didn't get there until June. At 19 mph, what do you expect? Bosh set out on his 587-mile trip on May 31 and arrived in

show live one day from a Big Boy in Monroeville, a Pittsburgh suburb. Another day we did it from a Friendly's Restaurant in Hershey, Pennsylvania."

Bosh said he'll never forget his escapade. "We met a lot of great people along the way. Gave out T-shirts, did a lot of schmoozing. It was great!"

Bosh drove the custom special-edition convertible Zamboni to the CoreStates Center in Philadelphia for a meet-and-greet with fans outside the arena.

"The amount of press we got was unbelievable," Bosh said. "I was surprised. That wasn't why we did it. We wanted to do a little something special, a little different to support our home team. The next thing you know, we've made national TV!"

Bosh's escapade piqued the attention

of "Ripley's Believe It or Not" writers. The syndicate saluted the effort with a June comic strip.

Bosh's bottom took a beating. "I've got a very sensitive tuckus! Now I've got to soak it!"

His efforts may have helped launch the Wings to a much-savored victory. When it was all done and said, Detroit's team swept the series to take home its first Stanley Cup in 42 years.

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Community 'Reel' Awards Inspire

Golden Reels Honor Programs That Cover A Broad Range of Community Concerns

Sharon Rae

If your community station needs to put the "fun" back in fund raising and find new ways to reach out to the community, two of this year's Golden Reel Award winners may provide inspiration.

Joseph Vincenza's spoof spots for KXCI(FM) in Tucson, Ariz., featured creative production and silly scripts. They earned him a very serious honor at the 1997 Golden Reel Award Ceremony, sponsored by the National Federation of Community Broadcasters.

The awards honor "outstanding and creative uses of the medium for commu-

Vincenza said a lack of the latest gear should not stop producers from being creative.

nity radio broadcasts, station-based and independent productions."

Vincenza's "KXCI Fund-raisers" membership drive piece won a Golden Reel citation in the station promotion category.

"Joseph's work was fun, creative and engaging," said Lynn Chadwick, president and CEO of NFCB, a national organization of community-oriented, non-commercial radio stations.

"These were around fund-raisers.... Community radio stations ask people in the community to send money.... This fund-raising stuff is really important. Joseph did it in a way that was so funny and entertaining. We were just in

stitches. He did a lot of character voices, and got in all of the information needed: credit card, phone numbers, etc.

"One of the spots was 'How to charm a woman' — (by) having good tastes and interests. 'So I always give to KXCI,' and he used this atrocious bogus French accent, which was totally charming."

VOICE OFF IN DISTANCE: *Pierre, come back, the Jerry Lewis marathon is about to begin!*

PIERRE: *I'll be right there my little snowball*

VOICE: *And bring the champagne and Chez Whiz*

PIERRE: *Coming my little cabbage. Well, duty calls, and so should you. Remember, love is not free, but at KXCI, you can pay for it with a credit card or through installments.*

Vincenza's other works included a parody of Mr. Burns and Smithers of "The Simpsons" fame.

SMITHERS: *Good morning sir, are you ready to go over this month's financial statement?*

BURNS: *Ready as a school boy with a bright red apple for his first-grade teacher, Smithers.*

SMITHERS: *Good analogy, sir.*

BURNS: *What's this then — a letter from one of my employees asking if we do "matching gifts" to the community radio station? This sounds like someone asking me to give away money! Why Smithers, this is your idea of a joke, isn't it? Very amusing!*

SMITHERS: *Actually, sir, it looks like a real note. It seems that one of your employees in sector 7-G, a Homer Simpson, made a pledge to the community radio station. It seems that some employers will match the amount of*

money their employees pledge and donate it to the radio station ... and the donation is tax-deductible.

BURNS: *Did you say "tax-deductible"?*

SMITHERS: *Yes, sir, and it makes you look like you actually care about something!*



Members of the Youth Radio crew display their Silver Reel awards. Top R: Anita Johnson, Deverol Ross, Rynell Williams, Alex Savidge, Minda Hickey Bottom L: Julian Ledesma, Ayoka Medlock, Noah Nelson

BURNS: *Excellent! Let them have their "community radio." Smithers, my pen.*

Vincenza, who is now the program director at KMUW(FM) in Wichita, Kansas, said the whole production was "embarrassingly low-tech."

"I did them at home on my kitchen table in one morning, after writing the scripts the day before on my little Tascam Porta cassette recorder. Then I went down to the station and plugged my deck into the production console and mixed them down to two-track."

Vincenza said community radio has a responsibility to the people it serves.

"We have two duties that I think we are charged with. One is to entertain, to the best of our ability, in ways that commercial media can't. And we're there to

educate as well, whether it's through music or through the news that we broadcast or the time that we can spend on a story because we don't have commercials."

Vincenza has another message as well. "I think as far as engineers or producers are concerned, they shouldn't let the fact that they don't have the latest gear stop them from being creative. These are things that I did very

low-tech, and it was just an idea that should be done with what was at hand.

"As for managers, I hope they will never squelch the creativity of their producers and their staff, because that's where the true genius lies."

Rap it up

As the saying goes, "kids are the voice of the future." If this is true, the future is bright.

Beverly Mire is the training director for Youth Radio in Berkeley, Calif., a non-profit broadcast/journalism training program for at-risk teenagers in the Bay Area. Youth Radio took home three Silver Reel awards, including one in the radio drama category called "Funny Stuff."

"It was a series of bits that our students created for a public affairs show that we run every Sunday on a radio station in San Francisco, WILD 107," said Mire, referring to KYLD(FM). "We were so happy it won! It's so important for young people to get recognized for what they do ... the media is so immediate — it's a piece that came and went. It was great for them to hear from someone on the outside saying, 'You're really good!'"

Students Julian Ledesma, Noah Nelson, Sarah Rosenkrantz, Alex Savidge and Rynell Williams wrote and produced four brilliant pieces including "DJ Nice," a spot featuring M.C. HugMe, D.J. Care Bear and Nice Rap: "The show that brings the essence of rap music, the nice way."

(Rap music bed)

... Check it out. I help the old ladies cross the street. I wake up in the morning like to brush my teeth. They call me M.C. HugMe ... I volunteer at the homeless shelter ... I'm the nicest rapper.

Another award-winning spot included "Mandatory Cruising," a hilarious take featuring two gentlemen, a Brit and a

See AWARDS, page 47 ►

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BOOK REVIEW

Reach for This Handy Phrase Book

Sue Jones

Ask any manager to name the most dreaded tasks of his or her job. The list is sure to include employee performance appraisals. Decisions about what to write and how to write it can be agonizing. Preparing an objective, accurate and balanced evaluation is a large part of the difficulty.

If you have had a mental block when writing a performance appraisal, this resource book can help. Whether you have been trained formally in performance evaluations, are new to the evaluation process, or simply struggle with them, this book can get you started.

"Effective Phrases for Performance Appraisals" by James E. Neal Jr. contains

more than 2,000 professionally written phrases listed under 50 key categories to assist managers in evaluating performance.

Key words, phrases

The key categories help a manager zero in on phrases appropriate for specific jobs. Examples of the key categories: Communicative Skills, Cost Management, Dependability, Motivation, Productivity, Selling Skills and Supervisory Skills.

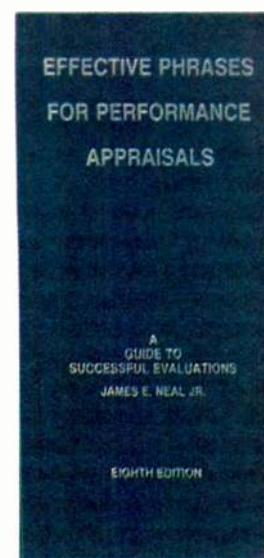
Some key phrases under Communicative Skills include: "Communicates clearly and concisely," "Communicates effectively upward, downward and laterally," and "Effectively translates complex information into common terms."

This book offers added support with a selection of two-word phrases that include "professional competence" and "solid achiever." You'll also find lists of helpful adjectives ("competent" and "diligent") as well as a section on helpful verbs ("clarifies" and "encourages"). Other useful information includes performance rankings ("distinguished" to "fair"

general manager and department heads use the same terminology, evaluations become more standardized and more professional.

Subjective evaluations will become more objective. The entire staff and station managers will benefit from the improved standardization.

■■■
 "The New Expanded Eighth Edition of *Effective Phrases for Performance Appraisals*" by James E. Neal Jr. has a list price of \$11.95. Buy it at leading bookstores or write to Neal Publications Inc., 127 West Indiana Ave., Perrysburg, OH 43551.



► AWARDS. continued from page 46

Scotsman, low-riding in their Town Car.

(Stuffy high-class orchestra music)

ENGLISHMAN: *This damn cruising law. I could have been at the country club or at the firm collecting extra hours. Instead I must take part in this madness.*

SCOTSMAN: *It's not so terrible. Who'da thought a Scottish lad like m'self and a fine Englishman like 'ou would ever be cruising together? Let's get into the spirit of things.*

ENGLISHMAN: *I guess you have a point. In that case, this music is totally inappropriate.*

(dump music)

SCOTSMAN: *Why not use this tape a young man lent me?*

ENGLISHMAN: *Pop it in lad!*

(music — "Low Rider" by War)

ENGLISHMAN: *I think we're going entirely too fast. Thirty miles an hour is extremely over cruising speed. To quote the Fresh Prince and D.J. Jazzy Jeff, "Two miles an hour so everybody sees you."*

Youth Radio's approach was funny, and the message was clear.

"These are topical issues," Mire said. "I think people want to hear what kids are saying. And nowadays, it seems like people are doing a lot of talking for each other."

Mire said working with young people of color who are at risk is a lesson in itself. "The opportunities for them now are just about the same, if not worse than, 25 years ago. Institutionalized racism has no place.

And Youth Radio is an example of that. We've got so many talented kids ... and already they're defeated at 16 and 17 because when they go into a radio station, they don't see a mirror of themselves."

Mire said she's not placing blame. "I just think that people who are already in radio have to stop thinking in their little boxes and look at these kids ... stop and listen and know maybe they have to take an extra step, and take a kid in and nurture them and make them feel like, 'Yes, you can do it.'

"It makes you feel great in the long run. I mean, what's radio?"

If you have had a mental block when writing a performance appraisal, this resource book can help.

to "unacceptable"). Equally important to the key phrases and words is a comprehensive section that provides guidelines for successful evaluations. That section points out things to do and to avoid in preparing the evaluation and discussing it with the staff member.

Positive to negative

This resource lists the positive attributes of staff members. It does not list negative characteristics that might need improvement. Unfortunately, we all have areas that could be strengthened.

However, many of the phrases can be converted easily to negative traits. For example, the phrase "maintains firm departmental control" could easily be rearranged as "sometimes does not maintain firm departmental control."

In addition to curing a mental block in writing performance evaluations, this guide also helps speed prep time. Because managers dread the task, inevitably they put it off as long as possible. Often it is the last task of the day, after a manager has dealt with a hundred problems and is mentally tired. These key phrases can refocus the mind and speed the writing time. Even if these phrases are not exactly what you need, they get your mind on a roll. This will help you create the specific phrases that you need.

This tool also aids in consistency and accuracy, especially if these key phrases and words are used for the performance evaluations for all staff members. If the

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Adieu A-Go-Go From the Cyber-Mutt

Alan Haber

Bark, bark! Arf, arf! Howdy hello! And good-bye! It's me, Poochy the Cyber-Mutt, stepping in to wish all you loyal *Haberspace* readers a fond farewell, an august au revoir, and a scintillating, "See you later!"

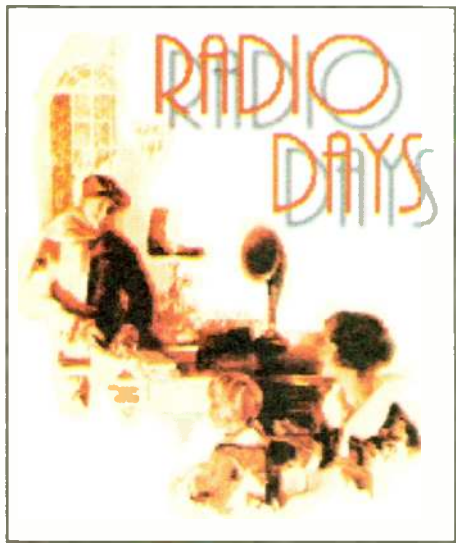
Go get it, boy!

Yes, we're moving on, one and all, packing our bags (ever so slowly; remember, we're talking *paws* here) and



getting ready to settle in to new pastures (the ones we have now are getting hard to mow).

Not only are we moving on, but we are coming clean. It must finally be revealed that it has been me, Poochy, and my



beloved doggie conclave (Poochy, Jr., Poochy, Jr., Jr., and Poochy-Thrice) who have been combing the Web for cool

radio station stuff these past few years. The ruse is finally revealed! The cat ... uh, the *doggie* is out of the bag!

It can now be told: Old Haberspace, who has already left these ever-where-would-we-have-been-without-him, ever-global *Haberspace* headquarters for his next gig (see below), has been acting as our Remington Steele all these years.

'Spacey is going to continue to front our future doggie ruses — that is, our future business concerns, including our newest foray into unknown territory (hey, the Web was new to us once *too*, you know): film criticism! Yes, we'll be taking over for Siskel and Ebert very soon, trading our paws for their thumbs.

Ha! But before we pack our doggie bags and romp off into the cyber-sunset, we thought we'd leave you with a few thoughts concerning all things radio and Web-related.

First of all, let's figure out what to call the act of putting a station's signal on the Web. There seems to be a lot of debate over this — all kinds of names flying around.

We suggest the powers-that-be figure it out before everybody, listeners included, gets too confused. You know, if we doggies were left to the task, we'd just toss a bone in the air and see where it lands.

Second of all, let's raise our doggie ears in celebration to the *more than 500* radio stations worldwide casting their signals onto the Web. The BRS Webcasters Directory (<http://www.brsradio.com/webcasters>), still the Haberspace fave site for this kind of thing, says 514 stations worldwide are on the job. Even though I and the other doggies will be moving on to movie criticism, we'll be keeping an eye on this growing trend. Just to keep our paws in it, so to speak.

Innovation, Interaction Are Secrets to Success

► MANAGER, continued from page 45

3. Staff members must have an established process for transferring a skill, information and/or ideas from the individual to a larger group through direct communication. Set up a regularly scheduled time for brainstorming new ideas and demonstrations, perhaps once a quarter. Have a sandwich lunch brought in for everyone. Tell everyone that no idea is dumb and you want at least 20 new ideas by the end of lunch. Establishing a process for transferring skills and ideas will increase your ability to adapt quickly to changes in the market.

Evolution, not stagnation

Many managers are not interested in building a self-perpetuating evolving staff. Those who continue to keep that short-sighted approach must realize there could be swift consequences that a stagnant staff cannot respond to and correct before it is too late.

Consider the fact that radio stations operate in a world they do not control. There are many variable factors in the listeners, clients and the market. FCC deregulation concerning ownership has

quickly changed the ownership landscape in many markets. This large-company competition is forcing some stations to seek niches in less-familiar territory. The Internet is opening new markets and opportunities. Stations that are money machines and are operated without regard to fundamental shifts in the market and industry risk becoming endangered species.

Stations that continually encourage and support their employees to develop and explore new ideas stand a better chance of surviving in an ever-changing world that they do not control. Success in the future now depends on mobilizing as much creativity and innovation at the station as possible. The continual search for new ideas creates constant learning and innovation. Fostering that type of environment is vital because a station's continued success depends on the staff's ability to evolve with the demands of the market.

■■■
Sue Jones is a principal in Bisset Communications, a management firm located in the Washington area. Contact her at (703) 503-4999.



Hey! While we're at it, here's a wag of the collective Poochy family tail for the fine folks at Audioactive and RealAudio and Xing and Microsoft NetShow, etc. There's still nothing like tuning into a



favorite radio station on the Web, and thanks to these companies, we can.

We've noticed that radio station websites are getting better all the time. Lots of very cool graphics and plenty of white backgrounds! Doggie applause for you all!

Favorites

Now, while we're doling out doggie applause, let's put our paws together for some long-time *Haberspace* favorites that hark back to one of radio's great, groovy and golden eras — the top golden era, in fact, here at the ever-remiscing, ever-tears-on-our-pillows global *Haberspace* headquarters. The 1960s Top 40 era! And now, without further paws:

Uncle Ricky's Reel Top 40 RadioRepository (<http://www.reelradio.com>). For a "reel" shot of radio history, look no further than this cooler-than-ever collection of air checks spanning one of radio's true golden ages. The weekly "Fab 40" countdown of air checks is always worth checking out. Congrats to "Uncle Ricky" from all us doggies for a great job still well done.

Musicradio 77 WABC (<http://musicradio.computer.net>). This tribute to one of the all-time great Top 40 stations offers exciting treasures to visitors. It's a great ride throughout — jingles, air checks, promos, interviews and tons of information about this legendary giant! It's the cyber-encyclopedia to end all cyber-encyclopedias on the home of Cousin Brucie, Dan Ingram and a host of other



classic radio voices. Take a bow, Allan Sniffen. Great job!

440: Satisfaction (<http://www.440int.com/440sat.html>). Looking for a DJ from the past? Want to give a young upstart at your station a history lesson? You can search for jocks and news people by name, city and station. You can even submit information. This is a great effort to keep track of radio's rich history.

Rock Radio Retrospective Alive! (<http://home.istar.ca/~rockroll/>). Immerse yourself in the wonders of radio here — particularly the Top 40 rock 'n' roll era. There's a lot on Canada's greats — the site's author, Dale R. Patterson, is based in Ajax, Ontario — but there's lots more, too.

Murray The "K" (<http://www.tvclassics.com/mtk.htm>). Was this radio great "the fifth Beatle?" Doesn't matter, actually — he was great and that's all that counts. You can read up on this legend, check out some cool photos (don't touch the screen with your paws, now), and listen to brief (slow-loading, unfortunately) WAV files of Murray in action. "Ah bey!" indeed!

The less-traveled road

Now, even we doggies like to venture down different paths every once in a while, so don't be surprised that me and the Poochy clan thought the *Radio Days* site (<http://www.otr.com>) was pretty cool. Immerse yourself in old-time radio here. And watch yourself longing for the "good old days." By the way, this site has one of the nicest looking home pages we've seen in — dare we say it? — a dog's age?

Well, it's time for me, Poochy, Jr., Poochy Jr., Jr., and Poochy-Thrice to get out of here and start boning up on our film criticism moxie (and getting our paws manicured).

Before we wag our tails for the last time in these pages, we should say that we've enjoyed having 'Spacey here and we wish him much luck. We also wish we knew the winning lottery numbers, but that's a whole other thing.

Old Haberspace says thank you very much for being loyal readers these past few years. He really appreciates all your support. He, too, would like to know the winning lottery numbers.

You know, us doggies have never gone in for long good byes, so maybe it's best that we waddle on out of here and catch a flick or two. Oh — look at that. Here's Old Haberspace, come back to pick up the last of his personal belongings. Perhaps he'll get up on the podium here, step up to the cyber microphone and say — "Bye!"

Cohen Wins Radio Exec Award

Radio's latest award milestone comes from the U.S. Small Business Administration (SBA).

Ron Cohen, Financial Newsradio president and general manager of KFNN(AM), was selected as the 1997 Arizona Media Advocate of the Year, the first time someone in the radio business has been chosen as an SBA Media Advocate.

The award recognizes "someone in journalism who strives to increase public understanding of the importance of small business to the economy." The ceremony took place June 6.

Cohen is a pioneer in the financial and business news/talk format. He established KFNN in 1988, in a joint partnership with CRC Broadcasting.

"KFNN is no different from any other news/talk format with the exception that we purposely omit all violent crime and sensationalized news topics," Cohen said. "We're more than an audio ticker tape of the stock market."

— Chris Hamaker

Studio Sessions

Radio World

Resource for Radio Production and Recording

July 9, 1997

New Stuff for
Your Studio

Product Guide
Page 56



Yamaha 03D: Another Success

The 'Cool Stuff' Award Winner From Yamaha Packs A Lot of Digital Power Into a Rack-sized Chassis

Part I of II

Ty Ford

A console with a mouse? For the Yamaha 03D (\$3,699), it makes a lot of sense, considering the amount of navigating required.

The 03D digital console sits between the ProMix 01 and 02R consoles. The 03D is 18 inches wide — fits in a rack — by 20.5 inches long and 8 inches high with all connections on the back. The LCD display is about 4 x 4 inches.

Tech tidbits

Like the 02R, the AC power cord is wired. A/D converters are 20-bit, 64x oversampled, can generate 44.1 kHz and 48 kHz and synchronize to an external wordclock source from 32 kHz, -6 percent to 48 kHz, +6 percent.

The stereo and monitor outputs are 20-bit 8x oversampled. The Aux sends and busses are 18-bit, 8x oversampled. EQ processing is an impressive 44-bit, eight internal processing is 32-bit. AES/EBU outputs are 24-bit, SPDIF are 20-bit.

The stereo digital outputs and eight Yamaha YGDAI busses can be dithered from 16 to 24 bits. Total delay through the console is 1.9 ms from analog input to analog output.

Miking up

There are eight balanced XLR mic inputs with a range of -60 to +10 dB. These eight channels also have balanced stereo TRS inserts that lift the XLR connection when a plug is inserted. Inputs 1-8 also have individual 26 dB pads and +48V phantom supplies.

Inputs 1 and 2 are the only inputs that

have TRS inserts. The preamps sound good, but have their limitations. They did not pass my RCA 44B test; there was too much preamp noise once I got the gain high enough to make the ribbon mic usable.

Inputs 9-16 are TRS and operate between -20 and +10 dB. A handy pair of TRS Stereo Ins with their own fader and routing that operate at line level are trimmable between -20 and +10 dB. The phase of each of all inputs can be individually switched.

A -10 dBV "2Tr" (two track) input finishes off the analog input section, allowing a pair of RCA plugs to be routed to the monitor.

Analog outputs include an XLR balanced stereo out; four busses; four aux outs (balanced/unbalanced TRS); a set of unbalanced

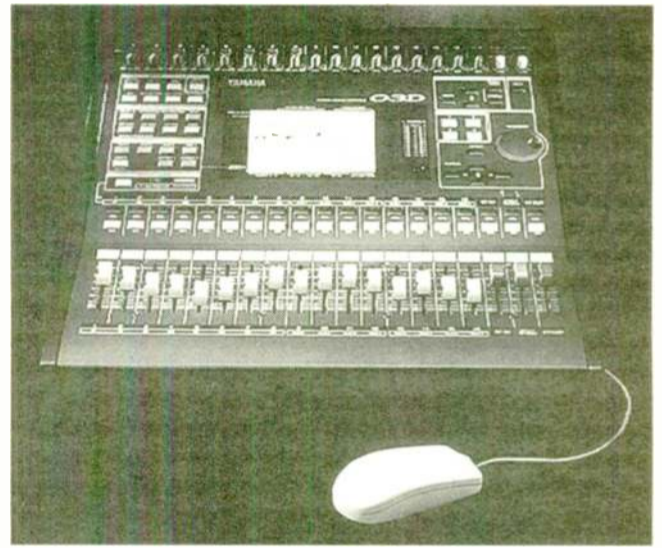
RCA jacks to which Stereo Out or Bus 1/Bus 2 can be routed; separate +4 dB TRS monitor outputs and a stereo headphone jack.

The power to the headphone jack is fair, but not enough to drive a set of power-hungry AKG 240s to the level I am used to.

The lower half of the backside has an eight-pin mini-DIN connector for con-

necting to a PC. Yamaha says this port makes a MIDI interface unnecessary, as it allows the 03D to act as interface to other MIDI gear through its In/Out/Thru ports.

Software should become available by the time you read this, but MIDI specialists with multiple modules and a contempt for MIDI looping will want to continue to use their distribution systems. Surface-mounted metering is minimal.



The Yamaha 03D Digital Console

a double LED display shows the stereo output. Metering via the LCD screen is more detailed. Input metering can be set pre-EQ, prefader or post fader. Output metering can be set to pre-EQ, post-fader or post-dynamics. There are also adjustments for meter fall time and peak hold.

The "Scan for word clock" is a nice feature that automatically searches the

See YAMAHA, page 55 ▶

SHORT TAKE

PR&E Explores FireWire Technology

A new high-speed data protocol now used in TV is about to make its mark in audio, with a well-known broadcast equipment manufacturer taking up the lead.

The new FireWire bus — the IEEE-1394 standard — is being explored for use in radio broadcasting by Pacific Research and Engineering (PR&E). The company is developing a product using the SoundFire that uses the new technology.

FireWire is a coming high-speed standard for data transmission that is already in use on digital television cameras made by Sony. It supports very high bandwidths; in the case of the SoundFire, this will be 200 MB/sec, which translates to a lot of audio channels.

The SoundFire audio engine connects to a computer as a peripheral device. In the company's version, it functions as a linear PCM engine, but developers are looking towards MPEG Layer II compression. The on-board DSP resources allow fades, scrubs and mixing of sources for segues on a single output.

A single SoundFire unit contains six stereo outputs and two stereo inputs

with the ability to interconnect multiple devices. Theoretically, it is possible to have three SoundFire units work together for 12 outputs and four inputs per computer workstation.

All I/Os are AES/EBU connections supporting 16-, 20- and 24-bit digital signals. SoundFire is addressable in Windows, and according to PR&E, the unit may become as easy to address as the current standard SoundBlaster audio card.

For 1997, Apple, Texas Instruments and Compaq all plan to introduce motherboards with FireWire connections standard. In the interim, Adaptec is marketing a PCI-to-FireWire host card to adapt standard PCs to the new protocol.

As the standard becomes more universal and is adopted by more companies, the ability to move and manipulate huge amounts of audio data will become easier and offer new possibilities. FireWire is here and PR&E is among the first to explore it.

For information on the SoundFire, contact PR&E in California at (619) 438-3911 or circle Reader Service 32.

— Alan R. Peterson



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Fast EdDit: Power for Old PCs

Alan R. Peterson

Maybe you don't need an eight-track DAW in every studio. Maybe all you want is a simple, inexpensive stereo editor to tuck into a corner somewhere. What if you could accomplish this with that six-year-old 386 gathering dust back in engineering?

Pull that old machine out of mothballs, drop in a decent soundcard and install Fast EdDit from Minnetonka Software; distributed by Digital Audio Labs, makers of the CardD digital audio interface.

Meet Eddie's brother

Fast EdDit is the successor to the "Fast Eddie" waveform editor.

Because Fast EdDit can assemble playlists, a sort of 'baby automation' can be created on a PC.

Admittedly, Fast EdDit does what every other editor does: records and plays stereo soundfiles, cuts and pastes, fades and mixes. It has limited two-band EQ, lacks DSP features such as reverb and can only do two tracks. So what is the appeal?

Fast EdDit can work on a bottom-of-the-barrel 386-40 with 4MB RAM running under Windows 3.1, which is how I evaluated it. Plus, Fast EdDit is packaged with a Catalog Editor, which you and I lovingly know as a *cart wall*! All of this in a laughably inex-

pensive \$199 package.

Speaking of laughable, do not dismiss the original 540MB hard drive on the PC. At 32 kHz, you will still get an hour's worth of audio onto disk. Read on to find out more.

Getting going

The main screen is split into Read Only and Modify windows. When a file is recorded or opened, it appears in the lower Read Only first. A quick copy-and-paste command clones the audio into the upper Modify window. Now, go to town.

Cut out flubs and tongue-clicks. Move entire blocks of audio to new locations. Add leader. Swap phrases to improve the copy. Drop in markers (up to 300) to flag positions of fades and new events. Do multiple copy-and-pastes — all with simple mouse clicks — for rapid electronic stutter effects.

To do voice-overs with music, load a selection into Fast EdDit, then move it up to the Modify window. Drop in Markers where the level should be ducked: Mouse the cursor along the time line and press "m" on your keyboard (or pick Marker from the pull-down menu). Small yellow arrows appear at these points.

Locate "Fade" under the Tools menu. Enter the desired fade levels expressed as a dB value. After a moment's calculation, the screen will show the change in amplitude in the selected region.

Open the voice track file into the Read Only window. Highlight the entire track with the mouse or by pressing the

"a" key. Hit "Copy" and the track is moved to the Windows clipboard.

Back in the Modify window, move the cursor to the Marker where you want the voice to begin. Under Tools, hit "Mix" then click OK.

More computation.. this is a 386 we are talking about.. and the mix is complete. Click the right mouse button to hear the finished product.

The main window has only one level of Undo. Ten levels of Undo can be found under Edit History.

Multitracking is not really possible, but Fast EdDit can run in "virtual four-track" mode. Audio in both windows is cursor-locked and all four tracks mix down to two-track stereo in real time.



Editing a Soundfile in Fast EdDit

This is not a substitute for real honest-to-goodness multitrack work, but for a program such as Fast EdDit, it is a slick feature. Timesqueeze one window with the Gearshift feature, lock them and you have some killer flanging.

Doing cart-wheels

Minnetonka made friends with me for life by including the Catalog Editor. This allows the building of "cart" catalogs for instant playback right from the screen.

Earlier I noted a meager 540MB hard drive is good for one hour's worth of 32 kHz audio. When spread out over an assortment of short events such as jingles and silly noises, that small drive can handle a lot. Are 450 eight-second sound effects enough?

Each on-screen hot key can be given a text name — not just a cryptic number — and the keys are resizeable to handle any length name. Sounds are triggered by the right mouse button.

This feature lets jocks use laptop PCs to play their favorite effects and bits at remotes and appearances. For sports events, stock sounds like "Charge!" or "Here We Go (clap-clap)" can be replayed at will.

Touch and go

Sounds can be triggered right from a touch-sensitive screen, if your system has one. New, these monitors are expensive, but watch the classifieds: You might land one if a bankrupt restaurant

auctions its old computer system.

Because Fast EdDit can assemble playlists, a sort of "baby automation" can be created on a PC.

Perhaps not enough to run a radio station, but enough for a repeating traffic information service (those "Tune to 530 AM" signs on highways), a store announcement system or a local short-range real estate open-house broadcast service.

This is not an intended use for Fast EdDit because the playlist cannot loop. When it hits the end, it stops. Even so, the Playlist feature opens up creative possibilities.

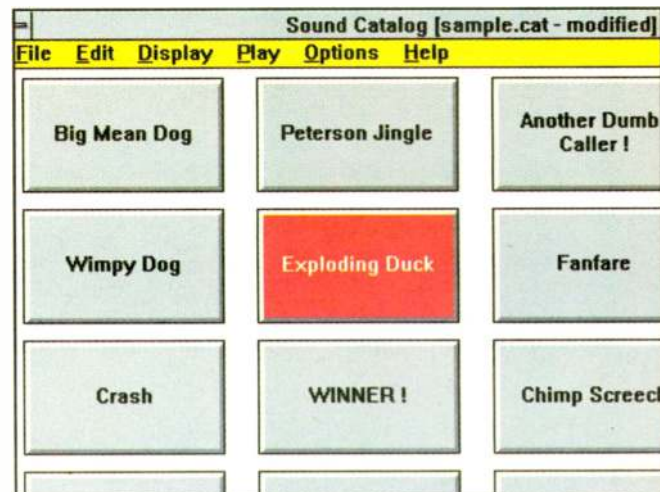
Fast EdDit's best features are revealed with a CardD. Audio scrubbing with reasonably good ballistics is possible. Simultaneous record/play is also possible only with a CardD, but if you need that much power, consider a 486 or better machine. Complex material may cause an overrun error and result in data dropouts on a lesser platform.

Similarly, lots of edits could make the drive skip around to keep up with edit decisions. The Combine Edits feature converts all separate small soundfiles into a single file that can play without dropping out. This eats up corresponding disk space, but that's life in the computer world.

Summary

Fast EdDit is a cool little program. It has no bells, whistles, reverbs or pretty pictures... it would almost be dull if it weren't so darn good at what it does.

The cart wall makes Fast EdDit attractive. The fact it runs on a skimpy



A Wall of Carts: The Catalog Editor

system makes it a bargain, now that 386 machines can be found in thrift shops for \$100.

Good soundcards mean good sound. Blow off the \$49 computer-fair Blaster clones and invest in a Turtle Beach Tahiti or the CardD.

If Fast EdDit could be linked to a second machine in the air studio, small-market operations and high school stations might be able to use it as an ultra-barebones cart replacement system without going into hock. I am considering testing this out with a local cable FM station in need of a cart emulator.

Take a look at Fast EdDit if you need a simple recording and editing station at your studio, or if you just want an editor for your own PC. Visit the Minnetonka Software website at www.minnetonkasoftware.com for more information and a demo.

■ ■ ■

For information, contact Digital Audio Labs in Minnesota at (612) 559-9098 or circle Reader Service 58.

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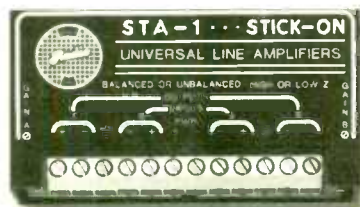
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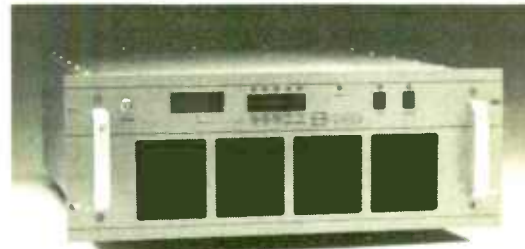
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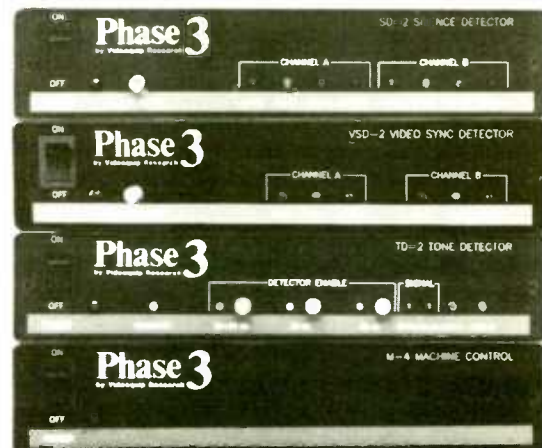


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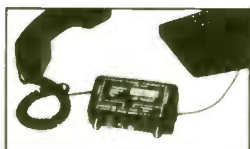
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READER SERVICE NO. 128

PRODUCT EVALUATION

A Sony DAT in a 10-Gallon Hat

Chris O'Brien

Country-formatted WRCY(FM), "Thunder 107.7," Manassas, Va., uses the Scott Studios System for music and spot storage and playback.

Lately I had become very space-conscious and decided it was time to remove some archived files and data from my station's hard drive. A DAT machine would be the perfect device for such a purpose.

Yet another DAT machine. "They're all the same," I chuckled to myself as I opened the box sent me from RW. Only this time around, the subject was the Sony PCM-R500 Digital Audio Tape Deck.

I have been a fan of Sony products for some time now, so I was eager to sink my teeth into this product evaluation. I would use my normal strategy: no directions at first. Only when all else failed would I grab the manual.

Phase One: Connection

Out of the box and into the rack went the PCM-R500. Hookups were simple: standard XLR ins and outs and, as is the custom with many other decks, unbalanced RCA in/outs. Setup time was about 10 minutes from box to rack.

After turning the deck on and finding a blank DAT tape, I began the process of dubbing from the computer hard drive to the PCM-R500. Just in case you were wondering, I ran the audio in analog form through the console to the DAT machine instead of doing a digital coaxial connection to the AES/EBU port.

I found that the machine worked well and was easy to operate. Setting levels, recording and playback were status quo. However, to truly take a good look at this machine, I felt I owed it to Sony to take a look at the manual.

Phase Two: Manual

Those who have read my articles are aware that I have an aversion to technical manuals and usually rely on my own intuition when it comes to most equipment.

A warning: Do not try this at home. I am a professional freak of engineering.

Well-designed equipment usually is easy to learn, simply by punching a few buttons and watching for the response. In the case of the PCM-R500 I decided to take a look at the manual and see what it offered.

Surprise, Chris! This manual is written

in English, French and German but is actually easy to follow. If you are fluent

I was also particularly fond of the shuttle knob. By turning the knob during



The Sony PCM-R500- DAT Recorder

in German or French, you are in great shape. As English is my thing, I was set to go.

Inside the manual I discovered some well-written step-by-step instructions for every operation. Of particular value are the passages in the manual devoted to

playback or in pause mode, you can locate a track quickly.

Smart knob, too. If the deck is stopped or in motion before you began to use the shuttle, it will return to play when you release the shuttle dial. If the deck is paused, it will stay in pause after you release the shuttle dial.

The display is easy to read and offers useful information. For example, when

Setup time was about 10 minutes from box to rack.

advanced recording operations, advanced playback operations and the writing of subcodes.

The real test of any piece of equipment is in the working studio, where producers can get their hands on it.

Phase Three: Producers

In all honesty I must report that everyone had to dive into the manual, but the results have been marvelous to date. The announcers have been using the DAT not only for archiving, but also for storage of on-air bits and as another playback/record source during recording sessions.

Among some of the slicker things about the PCM-R500 is the Super Bit Mapping (SBM) function. The SBM reduces quantizing noise within the frequency band by using some of the same principles used in human hearing combined with noise-shaping technology.

The SBM function is used during recording when you have an analog input signal. The SBM function operates solely during analog recording but one notes a marked difference in the quality of playback between audio recorded with SBM and without.

Specifications of the Sony PCM-R500

Record Head Drum Rotation:	Standard 2000 rpm; Long 1000 rpm
Error Correction:	Double-encoded Reed Solomon
Sampling Frequency:	48, 44.1 and 32 kHz
D/A Conversion:	Standard 16-bit linear; Long: 12-bit non-linear
Weight:	15 lbs 14 oz.
Dimensions:	19 x 5.75 x 14 inches
Power Consumption:	34 W

- Features:**
- 4DD (Direct Drive) motor mechanism.
 - Analog balanced XLR in/out jacks and professional-use AES/EBU digital interface.
 - Connectors for Parallel and Serial remote controls.
 - Easy menu operation using the SHUTTLE and DATA dials.
 - Independent analog REC LEVEL controls for L and R channels.

the Mode button is pressed you can alternately switch display screens to show Absolute Time; Playing Time; Time Remaining; Current Day, Date and Time; Day and Date of the recording, Time of Recording and Tape Running Time.

The display is also capable of displaying other messages, including ERR, which indicates that the heads are dirty or the DAT tape you inserted may be defective.

Troubleshooting is made easy by Sony through the detailed troubleshooting guide found in the manual.

If you are looking to replace your current DAT machine or maybe looking to add one, it is wise to shop around and compare decks offered by all companies. I highly recommend that you take a close look at the Sony PCM-500 and PCM-700 models.

■■■

For information on the Sony PCM-R500 DAT recorder, contact Sony in New Jersey at (201) 930-1000 or circle Reader Service 84.

Chris O'Brien is program director for WRCY "Thunder 107.7" in Manassas, Va. Reach him at obrien@tidalwave.net

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A Romp Through 'The Attic Tapes'

Alan R. Peterson

My annual cleaning frenzy suddenly overtook me during a vacation in late May, resulting in the paring down of some of my worldly possessions.

Once I really get rolling, these episodes are a lot more intense than simple "spring cleaning." Ugly shirts, Three Stooges videos, plastic owls with clocks in their tummies ... everything is scrutinized, then either tossed, given to the neighbors or mailed to my brother.

I figured this was a good time to run through the three huge boxes I call "The Attic Tapes," which I have carted from city to city since my earliest radio days. My intent was to dub them all over to MiniDisc so I would still have the entire collection saved in a smaller format.

Expectations

I knew I was destined to find my first newscast from my college station WHPC(FM). There, in my best New York-ese, I reported that "duh kawze udduh foyer wuz awson," or, translated to English, "It was determined the blaze was deliberately set."

I was certain to come across my first multi-voice splice job, done with a blunt magnetized blade that laid down thumps so loud it printed through over the years.

Somewhere in the pile I would come across my first song parody, an aircheck

of the first gag that got me in trouble, a few really blue outtake tapes and at least five "good-bye" shows.

But blocking my path were a few hundred commercials I had saved, each on a separate 5-inch reel. It was going to be a long afternoon.

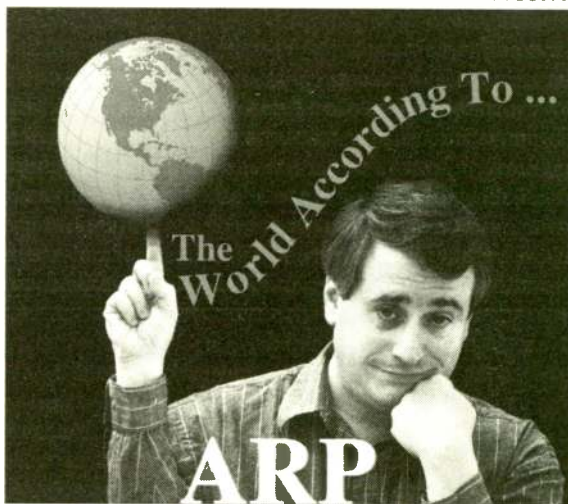
You're no Les Paul

Surprisingly, the box also contained a number of old song reels from high school and college, back when my old Lafayette Radio brand electric guitar and I overdubbed our way into musical obscurity via an ancient Roberts sound-on-sound tape recorder.

Most folks reluctantly play back old tapes, and groan either at their voices or at how lame the production quality was. I did a little of both, but I also realized the value of what was and wasn't on these old reels, and how much of it I still practice today — or should.

One of my favorite demo spots had a great music track that reminded me of the importance of *making friends with a musician*.

The North Atlantic Coffee Company franchise in Harrisburg, Pa., wanted a spot highlighting its classy wood-paneled decor as well as its Seattle-style grunge attitude. The day before we received this assignment, fellow guitar nut and WNNK-FM air talent Hollywood Heffelfinger (honest!) had brought in his



ax and an amp, just to make some noise.

I had the foresight to record some of the high-distortion thrash he was cranking out and even asked him for a few special bends and grinds, which made it into the DAW.

When it came time to cut the spot, Hollywood's high-dB guitar track was cross-faded against Vivaldi's "Four Seasons" in a way that actually worked. The spot, while not a huge winner with the client, was both hoity-toity and in-your-face. To me, it's still a goodie.

Action!

Radio's legacy has always been as theater of the mind, *with you as the star and director*. That is why the Connecticut Nutri-System spot series was fun.

Most often, when a staffer gets on the program, spots consist of little more than "I lost five pounds and I feel great." Wanting to take the concept up to a slightly different level, and every time a new spot had to be produced, we would place the staffer in new and unusual situations and exemplify the subject's progressive weight loss.

One spot had the subject squeezing through a mail slot on a front door. A week later, the same person would limbo under a flaming bamboo stick with crowd reaction. Another spot had our subject inspecting the contents of three lunch boxes, each filled with a popular diet plan of the day ... from the perspective of being inside the box.

Certainly it was not what the Nutri-System folks were expecting, but week after week they asked for extra cassettes of the spots. Either they were happy or they were planning to sue me.

Two painful samples I played back reminded me of another axiom: *know when to get out*.

My first real song parody drove this one home in style. A copy of Rosemary Clooney's "This Old House" naturally became "This Old Station" in the production room. Playing it back again after 16 years was a kick; the writing was crisp and the overdubbed four-voice harmonies were tight.

But the thing ran five verses. Almost four minutes of a "bit" in a day when few songs made it over four minutes. Listening, I was impatient for my own work to end.

The first day I aired it, I must have fantasized that listeners hearing it said, "Hey, that's pretty clever." In reality, they may have been telling their radios, "Okay, it's done being funny. End it."

Had I known, I would have bladed the

thing down to 1:15 tops. Experience is a cruel but undeniable teacher.

The second example: Audio technology has rendered the step attenuator all but obsolete. I wish it had happened in my college radio days. Back then, a music fadeout was a long and excruciating-sounding thing, with that tic-tic-tic of levels dropping to zero over time. But we just had to have those long, linear ramps on our promos and PSAs so we could (gasp) *talk after the break!* A practice completely verboten now.

Today we have laser blasts, orchestra hits and stingers to get us out of produced elements. A piece of modern production with a long fadeout would get sent back for a recut. But back in 1977, pilgrim, a real cowboy used his fadeouts. We could get away with anything back then; after all, who was listening to FM?

Cutting a tape

If I were to produce a "Best of" demo today, I certainly would not include any of these older efforts on it. My voice is different now, and recording and processing technology has made these cuts sound incredibly dated.

As archival material and a look back at the career thus far, these cuts have a personal historical interest. And when I am ready to issue that commemorative CD (*ha!*) I do not have to post a message on the Internet asking if anyone has old airchecks of me.

But even more, they continue to be a good brush-up education. And with much of the collection now on MD, I can probably refer to them more often.

Don't ever fear your old tapes. Be thankful you saved them, for they are among the better investments you made for yourself in your career.

■ ■ ■

Al Peterson juggles flaming portable multitrackers for fun. Write to him about your production experiences, care of RW, P.O. Box 1214, Falls Church, VA 22041.

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Mixing Digits With Yamaha 03D

► YAMAHA, continued from page 49 various ports for a good sync source. If you work with a lot of digital audio gear, you need a good house clock — an accurate master timing device feeding all digital machines as a single synchronized clock source.

The In and Out Word Clock ports on the 03D also have a 75-ohm termination switch that can be set as appropriate for parallel, T-bar and daisy-chain connections.

Also on the back of the 03D are AES/EBU (XLR) and SPDIF (RCA) digital I/Os that — unlike the 02R — can be brought into the mix, along with the

promise of editor interfacing with an as-yet unimplemented nine-pin port.

Whereas the 02R had four slots for

The 03D can act as an interface to MIDI gear.

various I/O cards, the 03D has only one single-sized YGDAI slot capable of only eight digital inputs and outputs. The slot can hold a CD8-AT ADAT card (\$299)

that uses one ADAT optical interface and a CD8-TDII Tascam card (\$299) that uses a 25-pin D-sub connector for DA-88 and DA-38 decks.

Options

D-Sub cables are also used for the AES/EBU, CD8-Y Yamaha digital I/O (\$299), a CD8-CS KIT digital cascade kit (\$999), an 03D SMPTE adapter box (\$169.95) for converting MTC (MIDI time code) to SMPTE time code. You are going to need this if you want to work in the video world.

If you are thinking about the 03D for broadcast or music production, there are

quite a few advantages, even though you are limited to 8+2 simultaneous digital outputs. If you do not need to record more than eight tracks at a time, you can do quite well with an 03D and an ADAT or Tascam DA-88 or 38.

After I learned the routing and solo settings, eight-track overdubbing was easy. Stick a mic or two in, plug in the headphones and get to work.

Next time, we get down with dynamics, go after effects and try out a Surround-Sound mix.

Watch for Ty's review of the Neumann 149 mic in an upcoming RW. "Advanced Audio Production Techniques" is available from Butterworth-Heinemann at (800) 366-2665. Download his voice demos at FTP.Jagunet.com/pub/users/tford

Make Client's Name Part of Production

Gowan Gray

Quick: Bea from Bea's Florist Shop wants "a jingle" for her business, but she doesn't want to drop two grand on the real thing. Naturally, your sales manager told her, "No problem. Our production nut can do anything."

The manager tells you to take some pop song and illegally record "Bea, Bea, Bea... Bea's Florist Shop" atop the music track. But you have a better idea: create a musical "button" that belongs only to her.

Lots of production people also have musical backgrounds. This same knowledge is what will make this project a success. Look at the name "Bea." B-E-A. These are all musical notes. Bea's own name becomes her own musical signature.

All it takes is a MIDI keyboard or one of those hifalutin' music auto-arranging computer programs to blow Bea away by your genius. Imagine having your own name made into a jingle!

For the uninitiated, the notes B-E-A are also the first three notes of the original "Star Trek" theme song. It is what you do right after those three notes that makes it special.

Because the spot is for a florist shop, set the MIDI modules to sound like light, airy guitars and dulcimers. Give it a folksy spin. Have the copy read, "Even our jingle says 'Bea,'" and Bea will think you are Mozart.

Need more? Add the note "F" from the word "Florist" to make it a four-note button (technically, it should be an F# to work, but Bea doesn't have to know that).

Bea can use this musical button in all her spots. Even if you change music styles to reflect Christmas, Hallowe'en or Valentines Day, the same B-E-A pattern can weave through every spot.

Try this out for any client whose name falls into the range of A through G.



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Rolls Rack Mixer

The new Rolls RM65 is an entire 6x4 mixer fitted into a 1 RU chassis. The device is intended for sound reinforcement, studio or remote van use where a high channel-to-size ratio is necessary.

The RM65 has six quarter-inch line inputs and six XLR mic inputs with individual level trimmer pots and phan-



tom power on the back panel.

Volume faders are horizontal slide pots while monitor, EQ, pan and effect send pots are rotary controls. Master volume and effect return pots are located next to a 10-LED level meter.

The power supply is internal and all ICs are socketed for field replacement if necessary.

For information, contact Rolls Corp. in Utah at (801) 263-9053 or circle Reader Service 214.

Steinberg 'Retro' Software

Steinberg North America brought back the sounds of the '70s and early '80s in a computer software package called Re-Birth RB-338. The program was created by Propellerhead Software and is distributed in the U.S. by Steinberg.

Re-Birth simulates the sound of the discontinued Roland TR-808 rhythm box and TB-303 bass synthesizer; two essential devices in creating techno effects for audio production. The program does this by emulating the original analog design as a mathematic model rather than by sampling the sounds of the original units.

Re-Birth places two bass line synthesizers and an "analog" drum machine on the screen with full 16-bit, 44.1 kHz output. The drum box lets you tune and set the level for each sound, while the synthesizer blocks feature low-pass filter controls and selectable square/saw waveforms.

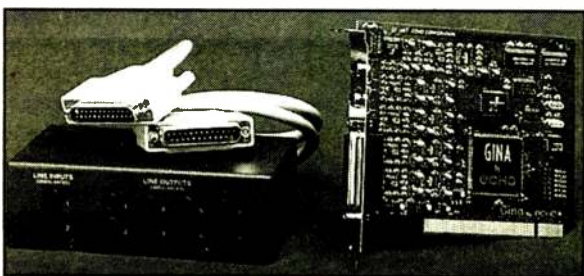
Re-Birth is available for both Mac and PC.

For information, contact Steinberg North America in California at (818) 993-4161 or circle Reader Service 163.

Event Electronics Multitracks

Event Electronics — the company that brought you the Røde Classic microphone — is distributing Layla, Gina and Darla; hardware systems from Echo Corporation for PC-based DAWs.

The Layla is a rackmount audio interface with a PCI bus-master host card. The rack unit features eight simultaneous balanced analog inputs, 10 balanced outputs, SPDIF digital and MIDI



ports. Full duplex capabilities allow playback on all 10 channels and both SPDIF ports while recording on all eight analog inputs. The PCI interface features a Motorola 56301 DSP chip running handling 80 million instructions per second.

The Darla is a 2-in/8-out 20-bit interface card that fits inside a PC. The package includes an unbalanced breakout box with RCA connectors.

The Gina features a 4-in/10-out breakout box with SPDIF connectors supporting 24-bit digital signals. Audio I/O is on unbalanced quarter-inch jacks.

All three hardware kits come packaged with "Cool Edit Pro" multitrack software from Syntrillium Software and includes all drivers for Windows 95 Plug-and-Play compliance.

Minimum PC requirements are a 486DX4 with 8 MB RAM and Windows 95.

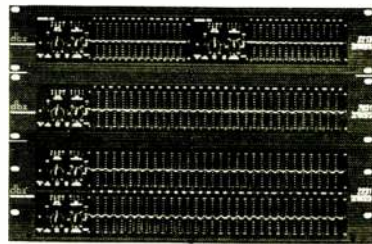
For information, contact Event Electronics in California at (805) 566-7777 or circle Reader Service 59.

dbx EQ/Noise Reduction

A new line of graphic equalizers from dbx Professional Products have self-contained dbx noise reduction and limiting, effectively becoming three boxes in one.

The model 2031, 2215 and 2231 EQs feature instant encode/decode Type III noise reduction technology. With the push of a button, S/N is improved by up to 20 dB. Additionally, the new PeakPlus limiter keeps levels tame with a single 41-position detented threshold control.

The 2215 is a dual-channel 15-band unit with 2/3-octave response. The 2031



is a single-channel unit with 31 bands of 1/3-octave EQ. The 2231 is a dual-channel version of the 2031. All have electronically balanced inputs and outputs and internal power supplies.

For information, contact dbx Professional Products in Utah at (801) 568-7660 or circle Reader Service 7.

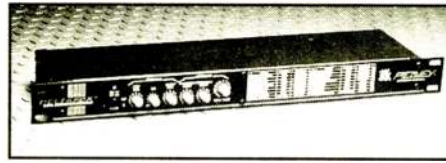
Peavey DeltaFex Processor

Peavey Electronics introduced what could be one of the least-expensive effect boxes available: the DeltaFex stereo multi-effects processor.

Priced at \$159.99, the DeltaFex has stereo inputs and outputs and 16 different effect types including seven reverbs, four delays, a combined parallel delay-reverb, phasing, flanging and a rotary speaker emulator.

The rotary speaker has a footswitch-controllable speed shifter which ramps up and

down as an actual speaker would. Each effect has two adjustable parameters to customize the affected audio.



Front panel controls include input and output levels, wet/dry mix, two parameter adjustments and a 16-position rotary control.

Peavey also has the DeltaFex Twin, which combines two processors into a 1 RU space.

For information, contact Peavey Electronics in Mississippi at (601) 483-5365 or circle Reader Service 85.

Esoteric Noise Reducer

Esoteric Sound has the SNR-1 Surface Noise Reducer, designed to minimize noise from vinyl phonograph records.

Designed initially for audiophile use and for record collectors, the SNR-1 can clean up recordings on vinyl albums and singles used for on-air and in production.

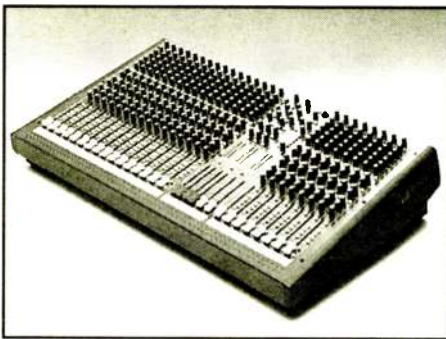
The device connects to standard installations as any hi-fi component. Two controls on the front panel — Distortion Limiting and Quietening — work together with a hardwired Bypass switch. The SNR-1 is a unity-gain device with a THD less than .02 percent @ 1 kHz and frequency response of 20 Hz-20 kHz.

For information, contact Esoteric Sound in Illinois at (603) 960-9137 or circle Reader Service 189.

Spirit Live Mixer

Spirit by Soundcraft has the LX7 mixing console.

This mixer is more suitable for live music performances than broadcast production, but recording engineers will appreciate the large number of inputs and outputs. The LX7 offers a maximum of 32 inputs with seven separate bus outputs, six auxiliary busses and direct outs on the first 16 mono inputs.



Twenty-four balanced mic inputs provide 60 dB gain and 22 dBu headroom. Each input includes four-band EQ with two sweepable mid frequencies.

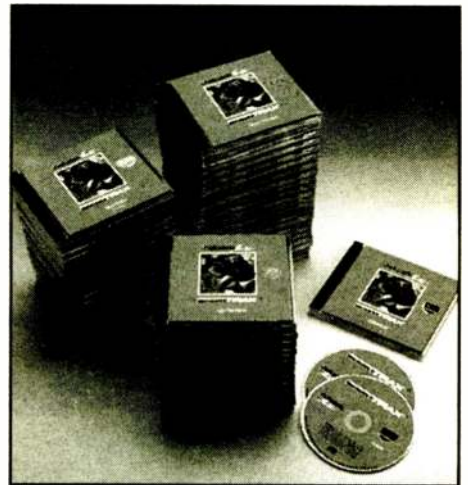
Surface-mount technology has made the entire package available in a "one-man-carry" frame with a suggested price of \$2,499.95.

For information, contact Spirit by Soundcraft in California at (916) 888-0488 or circle Reader Service 111.

Network Music Short Trax

The new Short Trax collection from Network Music is an assortment of :59 and :29 cuts culled from the company's acclaimed production library.

The 52-CD collection consists of more than 4,000 cuts edited to proper broadcast lengths and includes a full range of styles and categories. Listings include up-tempo, medium and slow



pieces, solos, industrials and specialty. More than 400 classical tracks are also packaged with Short Trax.

The library is available by license only.

For information, contact Network Music in California at (619) 451-6400 or circle Reader Service 33.

Complex RF Job in N'awlins

► PLANNING, continued from page 31

station. The station signals are combined by using precise pass/reject filters for each station on the system. Each station has necessarily the same antenna system input power level. Heavy-duty transmission line to the radiator atop the tower is required to handle the combined power.

These towers frequently stand more than 1,000 feet, and often have self-contained elevators to carry technical personnel to a level near the top.

The panel antennas for the faces of the multiple FM tower must be broadband in design and cardioid (heart-shaped) in pattern. All signals must receive the same benefits from the system. When an antenna is single-face or leg-mounted, the tower creates a shadow area with some directionality. The panels phased together overcome this problem.

■ ■ ■

James F. Pinkham has been a control systems designer and consultant since 1960, associated with Multronics Inc., Mullaney Engineering Inc. and other manufacturers. Contact him in Hudson, N.Y., at (518) 822-9425 or via e-mail at JIMPINK@aol.com

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Andrew 4" Hellax, 100' new on big returnable spool, \$21/ft, take on spool & return it to Andrew for refund; (20) 20' sections, 3.125", 50 ohm rigid coax, removed for upgrade, stored indoors. Clean, spring hangers attached to line, \$5000 for the lot, will consider selling in 5 stick units for \$300/stick; Jampro 6 bay FM antenna, removed for upgrade, 95.7 MHz, 3.125" input, radomes, slightly directional using supplied mounts on 16" pole, 3 yrs old, can be made non-DA, \$12,500, reasonable offers will be considered. All material will be sold as-is, where-is. All material is near Fayetteville NC. Purchaser responsible for packing, shipping & applicable taxes. Cottrill & Holland, Inc., agent for seller, 888-522-3303.

Phelps-Dodge 3 bay 6 kW FM on 100.3, excel cond, \$1500; 300' AM/FM guyed tower w/guys, insulators, base insulator, top beacon, 2 sets side lights, free w/removal. C Jones, WMNY, 7620 Old #6, Santee SC 29142. 803-854-6396.

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300' guyed insulated tower, ideal for FM, beacon & side-lights, free to take down; 180' tower insulated & guyed, free to take down; 120' tower (actually 180' but I need 60'), free to take down. CE Jones, WMNY, 7620 Old #6, Santee SC 29142. 803-854-6396.

Andrew xmission line, 170', 1-5/8" w/Andrew connections both ends w/gas pass & gas block connections, \$8/ft; Magnum 80' tower w/4 sections, 20' ea, triangle shaped, 3 sided, galvanized section w/guy wire, \$800/package. R Chambers, KSUE, 3015 Johnstonville Rd, Susanville CA 96130. 916-257-6955.

Harris/ERI 5 bay hor antenna w/deicers, 102.3 FM, \$1800; Mark parabolic antenna 5' dish on 950 MHz, \$1000. B Larson, WNGN, Box 36 The Kings Rd, Buskirk NY 12028. 518-686-0975.

Scala HDCA-10 receive antenna cut to 105.7 MHz, \$180. G Manfroi, WMAV, 502 S Allen, Spaulding IL 62561. 217-629-7077.

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na, tuned to 92.5, w/heaters, recently rebuilt, original owner, excel cond, BO. J Mosher, KPQX, POB 7000, Havre MT 59501. 406-265-7841.

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6-bay circularly polarized FM antenna at or near 98.5 MHz capable of handling 6-10 kW input. B Campbell, KACO, 720 N Commerce, Ardmore OK 73401. 405-226-9850.

Phasor & divider for 3 tower directional antenna system, 1000 night, 250 W day, single pattern. J Soler, WCPR, POB 316, Coamo PR 00769. 787-825-1405.

AUDIO PRODUCTION

Want to Sell

JBL 4410A (right only) studio

3-way monitor speaker, very flat 45 Hz-20 kHz @ 2 dB, new, \$240. R Evans, Evans Audio, 626 Laurel Lake Dr, Franklin NC 28734. 704-369-9196.

Kintronics 500-200 or less pwr reduction, \$350. C Jones, WMNY, 7620 Old #6, Santee SC 29142. 803-854-6396.

Orban DSE7000 analog & digital I/O, external DAT backup, 1.7G hard drive, 64M RAM, \$81K/BO. T West, WKQI, 15401 W Ten Mile Rd, Oak Park MI 48237. 248 967-3750.

White Instruments Series 4000 1/3 octae EQs, 40 to 16 kHz, balanced by White, rack mountable, \$600/pr + freight. J Block, Production Block Stds, 906 E 5th St, Austin TX 78702. 512-472-8975.

Akai MG1214 12 trk rcdr, 12 trk mixer, rebuilt transport, new heads, etc, excel cond, \$2500. T Santorelli, SPEC, 684 Sunrise Hwy, W Babylon NY 11704. 516-661-2454.

Digital Audio Labs card-D + prof audio card for IBM compatibles, 16 bit, simultaneous stereo R/P, true prof quality digital audio, \$450. T Payne, KTMC, POB 848, McAlester OK 74502. 918-298-5132.

Yamaha 2050 pwr amp, 50 W/chnl in gd cond, BO; Shure MC 68 mic, excel cond, \$100/BO. A Wudel, ILCC Telecomm, Esterville IA 51334. 712-362-7939.

Sony CDK-006 CD Players (4); (2) 360 Systems Digicart random access w/manuals; (1) 360 System (recorder/hard disk system; (2) ultimate digital studio interface and connection cable w/manuals; (10) 360 Systems Bernoeli digital audio disk. Randy Merren, 345-945-1166.

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Neve, Apl, Gates, Longevin, Collins, Lexicon & others, mic

preamps, EQs, reverbs, delays. T Coffman, 3949 Ardmore Dr, San Diego CA 92111. 619-571-5031.

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Want to Sell

Digital DJ system (upgraded) for satellite, switcher, 2 cards, software, pwr supply, manual, \$3000. Nick or Eva, KCCC, 10111 W Mermod, Carlsbad NM 88220. 505-887-5521.

IGM EC System (3) 48-tray stereo Insta-Carts, 24 stereo Go-Cart & computer, \$2000 for complete system, will consider selling individually. C Mandel, KAMP, 626 Main St, El Centro CA 92243. 619-352-2277.

Sentry FS12B System (2) 48-tray stereo Insta-Carts, (2) 24 stereo Go-Carts, (4) 42 Go-Cart for complete system, \$2000 for complete system, will consider selling

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Macintosh MI-60 rack mt, \$750; Mac MC-60, \$700; Dynaco (2) W, \$400; Dynaco MK IV 60, \$245 ea; Dynaco stereo 35 SCA w/PAS pre-amp, \$375; Fairchild 688 50 W transgard (2), \$250 & \$200. K Hargard, Eastman Studios, 1400 E Carson St, Pittsburgh PA 15203. 412-481-4450.

Pioneer stereo amp w/tuner, rt chnl weak, other wise works gd, \$30. Will or Lisa, W4 Rcdg St, Mill Spring MO 63952. 573-998-2681.

Want to Buy

All tube type amps, limiters, mixers, old speakers, etc. The Great Wireless Talking Machine, 419-782-8591.

ANTENNAS/TOWERS/ CABLES

Want to Sell

Andrew transmission line, newer used, 170', 1-5/8" w/Andrew connections both ends w/gas pass & gas block connections, \$8/ft. R Chambers, KSUE, 3015 Johnstonville Rd, Susanville CA 96130. 916-257-2121.

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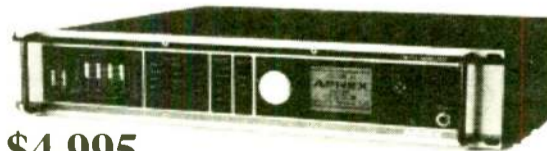
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shelf, \$550; Audi-Cord A Series stereo R/P, needs alignment, \$200; ITC RP stereo R/P w/sec + tertiary tones, \$375; ITC SP stereo PB, \$250; (2) UMC Beaucart mono players, need minor work, \$150/pr. D Jackson, WQQQ/WMEX, 19 Boas Ln, Wilton CT 06897. 203-762-9425.

Fidelipac ES010 Dynamax eraser/splice detector, excel cond, \$600. M Gollub, WMJS, POB 547, Prince Frederick MD 20678. 410-535-2201.

Continental Mark 8 stereo 8 chnl, rotary pot, stereo console, 1984 vintage, gd cond, \$1000; RCA BC-3, 1954 tube type console, clean & working, 8 chnl, also other vintage consoles avail to sell/trade. S Horner, Salem Comm, 4880 Santa Rosa Rd, Camarillo CA 93012. 612-405-8800.

Collins 8 pot board, \$300. W Osenga, Pace Bdcgt, POB 1369, Canton NC 28716. 704-648-3588.

Two, 115 W 79th St, Burr Ridge IL 60521. 1-800-789-8666.

Beyer Dynamic DT190 headset, \$195. B Landry, WLMG, 1450 Poydras St, New Orleans LA 70112. 504-593-2107.

EV 660 70's vintage, brushed aluminum, dual Z super cardioid, excel cond, BO; Telex single muff head set mic, great for remotes, like new, \$70; EV MC-150 dynamic mic cardioid, \$75. A Wudel, ILCC Telecomm, Easterville IA 51334. 712-362-7939.

Sennheiser 409U3 (2) cardioid studio dyn, cases, refurb by Sennheiser, mint, \$275 ea; EV-635A, \$95. K Hardman, Hardman Eastman Studios, 1400 E Carson St, Pittsburgh PA 15203. 412-481-4450.

Sennheiser MKM815T long shotgun mic, \$500. P Cibley, Cibley Music, 166 E 35th St, NNY 10016. 212-532-2980.

RCA 74B, works, in gd shape, asking \$350.00. Dave Stout, 314-434-3912.

CART MACHINES

Want to Sell

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Tapecaster X-700RPS stereo R/P, like new cond, \$700; **Tapecaster X-700PS** stereo PB, like new cond, \$300;

ITC 3D cart repro (11); (4) Scully 270 14" r-r, spare motors & parts for both; Yamaha 1500 W pwr amp; JBL dual 18" sub-woofer; Sony 5600 3/4" VCR. All to be blown out cheap. For more info, call Pro Audio Repair Service, 609-926-2206.

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ADC Fibermux 78 port 10BaseT Ethernet hub, \$475. G Wachter, KFYI, 631 N 1st Ave, Phoenix AZ 85003. 602-817-1030.

CONSOLES

Want to Sell

Arrakis 12 pot stereo console; Tascam M308B stereo console. J Arzuaga, WLAZ, Box 980, Quebradillas PR 00678. 787-895-0000.

Sparta AS30B stereo, 5 pot, gd cond, \$350; BE 10S350 stereo sliders aud pgm, vgc, \$3500; RCA stereo 8 pots, gd cond, \$500. J Coursolle, WPKR, 2401 W Waukau Ave, Oshkosh WI 54903. 414-236-4242.

Sparta RS-30 4 chnl stereo mixer, desk, 2 TT's, 2 pre-amps, 2 monitor speakers, cue speaker, mic, \$500 u-haul. C Jones, WMNY, 7620 Old #6, Santee SC 29142. 803-854-6396.

Teac 3, 8x4x2 w/8x2 submix, EQ, assign, line/mic w/atten/phono inputs, \$275/BO. M Bailey, creative rediffusions, 1245 Scenic Highway, Pensacola FL 32503. 904-433-4549.

McCurdy stereo consoles (2), Penny & Giles slide pots, excel cond, \$2500 ea or \$4500/both; Gates Executive 10 chnl consoles (3), \$1250 ea or \$3000/all. B Larson, WNGN, Box 36, The Kings Rd, Buskirk NY 12028. 518-686-0975.

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Teletronics or UREI (LA 2, 3, 4, 1176) Gates, RCA, dbx (160-165) Altec, Collins. T Coffman, 3949 Ardmore Dr, San Diego CA 92111. 619-571-5031.

UREI, dbx, WE, Gates, Collins, Altec, all tube types, etc. The Great Wireless Talking Machine, 419-782-8591.

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Want to Sell

Microtech Gefell UM92 tube mic, less than 1 yr old, perfect cond w/pwr supply, cables, shock mount, extra EF86 tube, \$1950. T O'Toole, Studio

Want to Buy

RCA 77 & 44 or other ribbon mics, dynamics & tube mics. T Coffman, 3949 Ardmore Dr, San Diego CA 92111. 619-571-5031.

RCA, Neumann, WE, all types, on-air lights, etc. The Great Wireless Talking Machine, 419-782-8591.

RCA 77-DX's, 44-BX's, WE KU-3A's On-Air lights, recording lights. Top price paid. Fast response. Bill Bryant Mgmt, 2601 Hillsboro Rd, G12, Nashville TN 37212. 615-269-6131, FAX: 615-292-3434.

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Rotron Blowers for Elcom, Harris, CCA, CSI, McMartin, rebuilt & new. Goodrich Enterprises Inc. 11435 Manderson St, Omaha, NE 68164 402 493 1886 FAX 402 493 6821

Dynamax ESD-10 splice loc & eraser, vgc, \$500; (2) wall cart racks, 108 carts, excel, \$50 ea; (3) wall cart racks, 100 carts, excel, \$50 ea, Carousel cart rack, 200 carts, excel, \$150. J Coursolle, WPKR, 2401 W Waukau Ave, Oshkosh WI 54903. 414-236-4242.

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connectors, \$10; Sennheiser HD410SL open air radio headphones in vgc, \$30. Will or Lisa, WLD Rcdg Std, Music Valley Rt 1, Mill Spring MO 63952. 573-998-2681.

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Gates, Collins, RCA equip books, old, from the 70's copies OK. S Eberhart, Eberhart Prod, 3205 Patriot Dr, Plano TX 75025. 972-491-2804.

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Tascam MSR-16 16 trk 1/2" w/dbx, RC-416 full remote, low hrs, mint, original boxes/packing, 3 reels new Ampex 456, \$3500. D Sieb, Harvest Prod, 8297 Hillpoint Rd, Cross Plains WI 53528. 608-798-2223.

Teac 3340S 4 trk, sync, 25" tape, 10.5 reel (2), gd cond, one w/remote, \$275/BO. M Bailey, Creative Rediffusions, 1245 Scenic Highway, Pensacola FL 32503. 904-433-4549.

Ampex 350 7-15 pair, \$625 ea; Sony 850 2 trk remote, \$500; Sony 654 4 trk w/sel sync, \$500; Uher royal deluxe 4 speed, \$500. K Hardman, Hardman Eastman Studios, 1400 E Carson St, Pittsburgh PA 15203. 412-481-4450.

Ampex 440C in Ruslang roll around, stereo, \$750, mono, \$500; Scully 280 in Ruslang, stereo, \$750, mono, \$500. B Larson, WNGN, Box 36 The Kings Rd, Buskirk NY 12028. 518-686-0975.

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Panasonic Pro SV-3700 DAT, \$825; Tascam 32 r-r, \$595. G Wachen, KFYI, 631 N 1st Ave, Phoenix AZ 85003. 602-817-1030.

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TFT Digital STL DMM92-E-100 encoder/DMM92-D-100 decoder w/(4) 15 kHz chnl, used less than 2 yrs, \$5500. R Bell, WASE, POB 2087, Elizabethtown KY 42701. 502-766-1035.

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24 yr old pro w/8 yrs exper as APD/MD/AT looking for new attitude, new scenery, SE preferred. Donovan, 205-933-6326.

Lets do something different w/your Southeast smaller market radio stations! Write: POB 14706, Greenville SC 29610.

News Anchor/Producer, commercial prod, air talent for adult formats avail now, VOA downsizing casualty. Alex Kuhn, 513-777-8423.

Station Engineer, currently PT station engineer for FM w/yrs of exper in various areas of digital, HF & microwave equipment maintenance. Military & civilian tech schools, will relocate. 715-831-1199 FAX: 715-839-5526.

Veteran programmer looking for challenge, experienced in all phases of business. Rober, 423-235-6889.

CE position wanted, 10 yr job lost to sale, exper w/computers, xmtrs, automations, DCS, UDS, digital studios,

great references. Robert King, 801-334-8315 night-time.

CE/Computer Tech w/20+ yrs hands on engineering exper seeks CE position in a top 100 market, strong audio, computer networking & RF skills. 704-563-8676.

Eleven yrs exper audio production including 2.5 yrs radio employment. All positions, will relocate. Andrew Cheadle, 3112 Silva, Lakewood CA 90712 or AJC97@JUNO.COM.

Morning AT, 10+ yrs exper, phones/fun, any shift, most formats, MD. Kevin, 517-739-0328.

Top 30 mkt voice avail for your market, 25 yrs in TV/radio, one-liners, news opens, promo pkgs, commercials, reasonable rates. For demo: 615-384-4121 or email: jp53@nc5.infi.net.

Webpage builder & air talent seeks position w/forward moving company, call or e-mail for tape & resume. Dan, 812-385-4273 or jhancock@comsource.net.

ACTION-GRAM

EQUIPMENT LISTINGS

Radio World's Broadcast Equipment Exchange provides a FREE listing service for radio stations and recording studios only. All other end users will be charged. Simply send your listings to us, following the example below. Please indicate in which category you would like your listing to appear. Mail your listings to the address below. Thank you.

Please print and include all information:

Contact Name _____
 Title _____
 Company/Station _____
 Address _____
 City/State _____
 Zip Code _____
 Telephone _____

I would like to receive or continue receiving **Radio World** FREE each month. Yes No

Signature _____ Date _____
 Please check only one entry for each category:

- I. Type of Firm**
- O. Combination AM/FM station
 - F. Recording Studio
 - A. Commercial AM station
 - K. Radio Station Services
 - B. Commercial FM station
 - G. TV station/teleprod facility
 - C. Educational FM station
 - H. Consultant/ind engineer
 - E. Network/group owner
 - I. Mfg, distributor or dealer
 - J. Other _____

- II. Job Function**
- A. Ownership
 - G. Sales
 - B. General management
 - E. News operations
 - C. Engineering
 - F. Other (specify) _____
 - D. Programming/production

Brokers, dealers, manufacturers and other organizations who are not legitimate end users can participate in the Broadcast Equipment Exchange on a paid basis. Line ad listings & display advertising are available on a per word or per inch basis.

WTS WTB Category: _____
 Make: _____ Model: _____
 Brief Description: _____

 Price: _____

*Closing for listings is every other Friday for the next month's issue. All listings are run for 2 issues unless pressed for space or otherwise notified by listee.

Broadcast Equipment Exchange

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ADVERTISER INDEX

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Page No.	Advertiser	Reader Service No.	Page No.	Advertiser	Reader Service No.
10	360 Systems	209	29	Gorman-Redlich MFG. Co.	104
51	ABG	102	57	Hall Electronics	233
33	AEQ	187	47	Harris	57
13	Altronic Research	54	36	Henry Engineering	103
22	Armstrong Transmitters	81	6	Hnat Hinds	105
12	Arrakis	28	29	Innovative Devices	130
26	Arrakis	185	11	Inovonics	2
61	ARS Electronics	229	3	Intraplex	53
29	ATI	25	52	J Squared Technical Service	20
43	Audio Processing Technology	160	52	JK Audio	72
2	Audioarts Engineering	27	53	Karen West Productions	45
63	Auditronics	135	36	Microwave Filter Co.	77
57	Auralex	234	36	Modulation Sciences	49
35	Autogram Corporation	124	49	Modulation Sciences	83
29	BDI	78	18	Moseley	184
44	Belar	212	16	Musicam USA	56
52	Benchmark Media Systems	128	51	Myat Inc.	129
55	Broadcast Press	—	46	Neutrik	31
29	BSI	51	36	Nott Ltd.	50
15	BSW	142	42	OMB/Transamerica	134
4	Burk Technology	79	29	PAS	26
25	Cartworks/DBM	159	29	Power-Link	52
32	CBSI	30	24	PR&E	133
36	Circuit Werkes	24	14	Processing Solutions	80
51	Circuit Werkes	22	19	QEI	210
52	Coaxial Dynamics, Inc.	99	45	Radio Spirits	5
52	Comet North America	21	51	RDL	75
7	Comrex	183	51	Reach Satellite Systems	48
35	Comrex	125	60	RF Power	227
1	Continental Electronics	1	60	Satellite Systems	232
60	CPI	225	8	Scott Studios	131
20	Crown Broadcast	3	36	Shively Laboratories	23
34	Datacount	211	17	Shure Brothers, Inc.	158
22	Dataworld	55	51	Silicon Valley Power	74
35	Econco	98	50	Sine Systems	109
60	Econco	228	60	Svetlana Electron Devices	226
31	Enco Systems	4	21	Tascam/TEAC America	29
37	Energy-Onix	65	9	Telos Systems	157
44	Energy-Onix	186	53	The Radio Mall	100
61	Energy-Onix	230	61	Transcom Corp.	231
23	Eventide	107	36	Universal Electronics	76
52	Excalibur Electronics	73	52	Videoquip Research	46
52	Freeland Products, Inc.	47	64	Wheatstone	161
41	Full Compass Sound	213	35	Zercom	101
39	Gentner	108			
53	Ghostwriters	19,127			

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Free subscriptions are available upon request to professional broadcasting and audiovisual equipment users. For address changes, send current and new address to RW a month in advance at P.O. Box 1214, Falls Church, VA 22041. Unsolicited manuscripts are welcomed for review: send to the attention of the appropriate editor.

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Radio World

FREE Subscription/Renewal Card

I would like to receive or continue receiving **Radio World** FREE each month. Yes No

Signature _____ Date _____
 Please print and include all information:
 Name _____ Title _____
 Company/Station _____
 Address _____
 City _____ State _____ ZIP _____
 Business Telephone () _____

Please check only one entry for each category:

- I. Type of Firm (check one)**
- D. Combination AM/FM station
 - F. Recording Studio
 - A. Commercial AM station
 - K. Radio Station Services
 - B. Commercial FM station
 - G. TV station/teleprod facility
 - C. Educational FM station
 - H. Consultant/ind engineer
 - E. Network/group owner
 - I. Mfg, distributor or dealer
 - J. Other _____

- II. Job Function (check one)**
- A. Owner/President
 - G. Sales
 - B. General management
 - H. Programming/news
 - C. Engineering
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 - D. Programming/production
 - F. Other _____

Reader Service P78

JULY 9, 1997 issue Use until OCT 9, 1997
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World Radio History

Some Countries Have It ALL!




WSIX - Nashville, Tennessee "Country Music Station of the Year"

A-500 Studio Furniture delivered March 1993
A-500 Console S/N 20789 delivered April 1993
A-500 Console S/N 20792 delivered April 1993
A-6000 Studio Furniture delivered March 1995
A-6000 Console S/N 22536 delivered March 1995
R-16 Console S/N 22557 delivered March 1995
SP-5 Console S/N 22593 delivered April 1995

1995 Academy of Country Music Award
1995 Marconi Country Music Award
1995 Billboard Country Music Award
1995 Country Music Association Award
1995 Country Music Association SRO Award
1995 Gavin Country Music Award
1996 Gavin Country Music Award
1996 Academy of Country Music Award

Wheatstone Model A-6000 Audio Console shown

 **Wheatstone Corporation**
tel 315-452-5000 / Syracuse, NY

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World Radio History