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◆ NEWSWATCH ◆

Radio Show Draws 3,900

PHILADELPHIA The NAB said attendance for this year's NAB Radio Show was about 3,900. A spokesman said the figure closely tracked attendance at last year's show in Seattle.

For many attendees, the big buzz of the show came from keynoter Rush Limbaugh. He made national headlines when he quit his ESPN job after making a controversial comment about media coverage of an African-American NFL player in Philadelphia, on the eve of addressing the radio show here.

During his keynote, his first public appearance after the incident, he referred to the controversy as "the ESPN thing." Extra police were called in to the convention center for the address and the remainder of the show.

280+ Stations Licensed for HD Radio

PHILADELPHIA Ibiquity Digital Corp. executives say approximately 280 radio stations in more than 100 markets have licensed the company's technology. Roughly 55 are on the air with HD Radio signals, said Ibiquity President and Chief Executive Officer Robert Struble.

The company expects to achieve its year-end goal of licensing 300 stations.

FCC Gets Tough On Indecency

WASHINGTON Two major enforcement decisions from the FCC were announced during the NAB Radio Show.

The decisions were made public in Washington on the same day FCC Commissioner Kathleen Abernathy told show attendees in Philadelphia that the agency is cracking down on repeat broadcast indecency violators.

The FCC issued a proposed maximum fine of $357,500 against Infinity Broadcasting for allegedly broadcasting indecent material on numerous stations on the Aug. 15, 2002, "Opie & Anthony" show. The investigation was sparked by more than 500 complaints about a contest allegedly involving two listeners having sex in New York City's Saint Patrick's Cathedral.

Commissioner Michael Copps dissented, saying the decision was "a slap on the wrist." Commissioner Kevin Martin said the fine should have been higher.

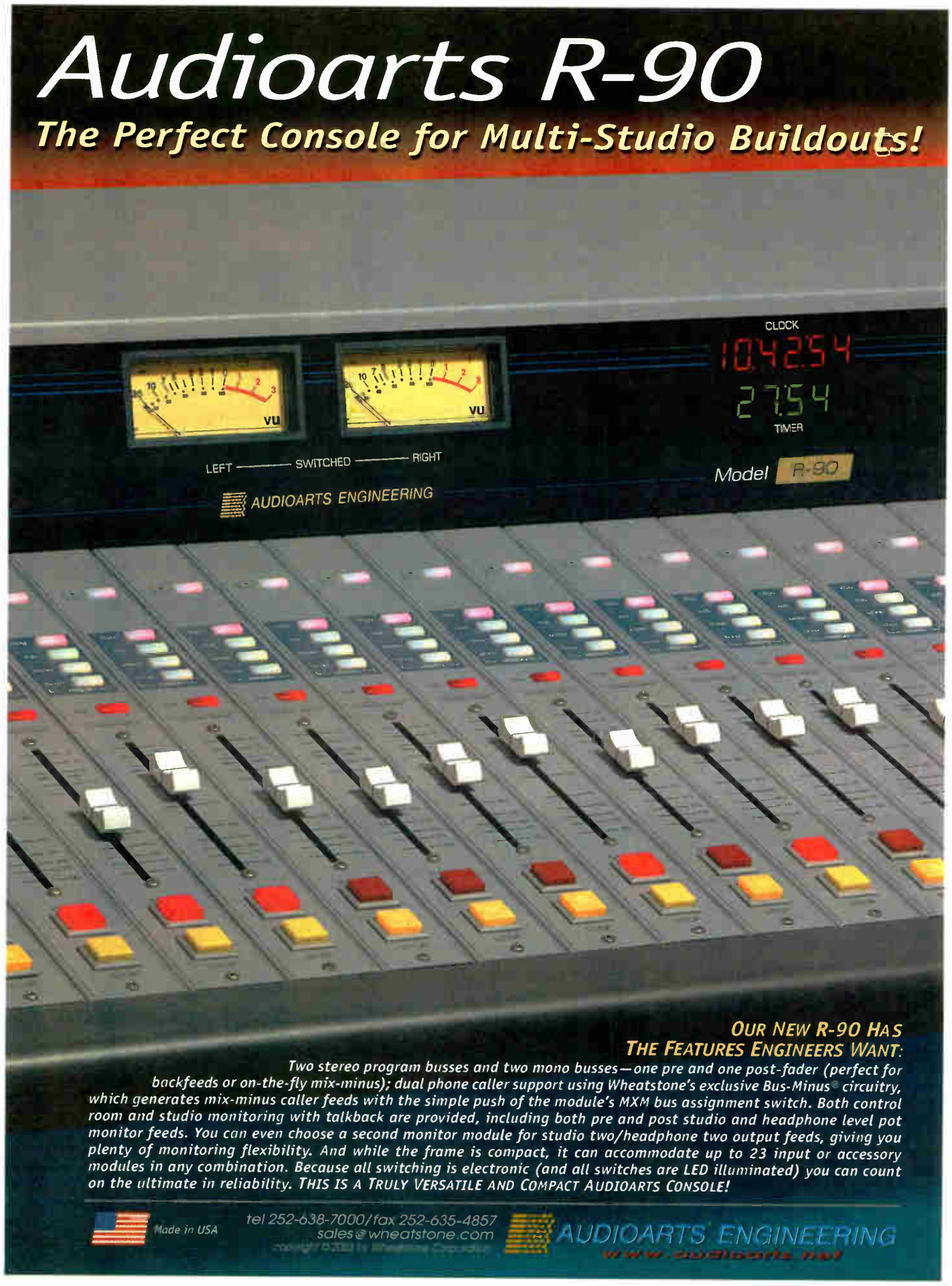
Separately, the agency issued a proposed maximum fine of $55,000 against AMFM Radio for broadcasting allegedly indecent material on WWDC(FM) in Washington for two incidents on the "Elliot in the Morning" program. The agency said calls on those programs contained references to oral sex, violating the FCC's indecency rules.

Baumann to Leave NAB

WASHINGTON Jeff Baumann will retire from the NAB in February. He's the second high-level NAB official to depart recently; Jim May, longtime head of NAB's lobbying division left the association earlier this year to head an aviation association.

As NAB Executive Vice President of Legal and Regulatory Affairs, Baumann oversees a staff of nine lawyers and support staff and the three-person Human Resource Development Department. Baumann and his department represent NAB before the FCC, the Federal Trade Commission, the Commerce Department's National Telecommunications and Information Administration, and in court.

Baumann joined NAB in January 1984 as senior vice president and general counsel, and was promoted to executive vice president in 1987. Prior to joining NAB, Baumann was deputy chief of the FCC Mass Media Bureau, and served stints as chief of the FCC Renewal Branch and chief of the Policy and Rules Division.



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GUEST COMMENTARY

'Tom' Is Better Than 'Perfect Paul'

by R. Scott Sparks

The National Oceanic and Atmospheric Administration, in its quest to improve the radio service of the National Weather Service, has introduced the successor to "Craig," the concatenated voice system which has been used for the last year or so to announce weather reports and alerts on the country's weather radio system.

Is the new system, nicknamed "Tom," really an improvement?

I wrote about my general level of disgust with "Craig" last fall in the Oct. 9, 2002, issue of Radio World. I have to admit that the technicians who record, edit and write the programming that makes "Tom" work have made some progress in making the system sound more human and less mechanical. It seems as though attention has been brought to bear upon some of the most glaring issues from which "Craig" suffered.

Cadence, pronunciation and (importantly) pauses and spacing between words seem much more natural. "Craig" suffered from some inflection variations, which made the speech patterns resemble noodle sandwiches, kind of screwy and off-kilter.

"Tom" seems much better balanced overall. The most significant improvement is that "Tom" lacks the occasional out-of-character faux pas that "Craig" exhibited. I am actually quite happy that "Tom" pronounces the weather condition "clear" in a normal tone of voice.

A little enthusiastic

"Craig's" vocalization was a hyper-enthusiastic "CLEAR!!" While this might be forgivable and perhaps even endearing if used occasionally, after hearing it repeated 25 or 30 times each cycle during the reporting of regional weather conditions, I began to dread fair weather.

The author is shown with KEC42, the NWR transmitter for Eugene, Ore., operating on 162.40 MHz.

"Tom's" delivery is a good deal faster than "Craig's" was, which has increased the speed of the forecasts without sacrificing intelligibility for the most part. The system still suffers, however, from an inability to differentiate between words that are spelled identically but pronounced differently.

For example, the difference between "wind" as in the movement of air and "wind" meaning to rotate with a twisting motion are still beyond "Tom's" understanding. New pairs of words that the voice cannot distinguish are cropping up, such as "record," as in a new record temperature, vs. to "record" a new sound file. "Tom" uses them interchangeably.

NOAA is to be commended for its prompt action in getting our local unique place names such as Umpqua, Scapoose, Santiam and Willamette voiced and programmed into the system early in the new deployment. Now if NOAA could get a second take on some minor words, which still exist in the computer's lexicon. Valley "basin" isn't pronounced "bassin," guys. While the forecasting itself is more accurate than ever, the greatest liability in the system is the least likely to get any corrective attention. That is the feedback loop that brings the forecaster in the regional NWS office in contact with the finished product that will be airing on the NOAA radio service.

Forecasts, warnings and advisories still are subject to being reduced to gibberish due to the inclusion of typos, punctuation errors and misspellings. A recent special weather statement was reduced to a two-minute recitation of statistics devoid of punctuation, spaces or pauses, making it completely unintelligible.

No broadcast facility in the country would allow staff to air production without checking it beforehand in the studio, so I have to wonder why a "check forecast" feature isn't included in the regional office to allow forecasters to listen to the resulting synthesis that will possibly be used to protect life and property from the effects of adverse weather.

Is "Tom" an improvement over "Perfect Paul"? Definitely. Is he better than "Craig"? Mostly.

Is the system an improvement over the locally based, living, breathing human staff that used to provide the forecasts on NOAA weather radio? Faster? Probably. Cheaper? No doubt. Better? Not in this lifetime. Keep working on it, people.

R. Scott Sparks is a broadcast engineer in Eugene, Ore. Reach him via e-mail to sharkey@mrsharkey.com.

Radio World welcomes other points of view to radioworld@imaspub.com.

◆ NEWSWATCH ◆

Clarke Liable For $6,000

WASHINGTON The FCC fined Clarke Broadcasting Corp., former licensee of KTIQ(AM), Merced, Calif., $6,000 for failing to provide adequate transmitter control and to maintain authorized power.

In 2001, the FCC investigated a complaint that the station, formerly KAXW, was interfering with another station because it wasn't lowering power after sunset. During an inspection, the agents found the output of KTIQ was 87 percent to 122 percent of authorized level, and agents confirmed that power was not being reduced after sunset. Inspectors determined that KTIQ's remote control system was not programmed to alert the operator when the station's frequency was out of tolerance and the system was not calibrated to provide accurate indications of the antenna input power.

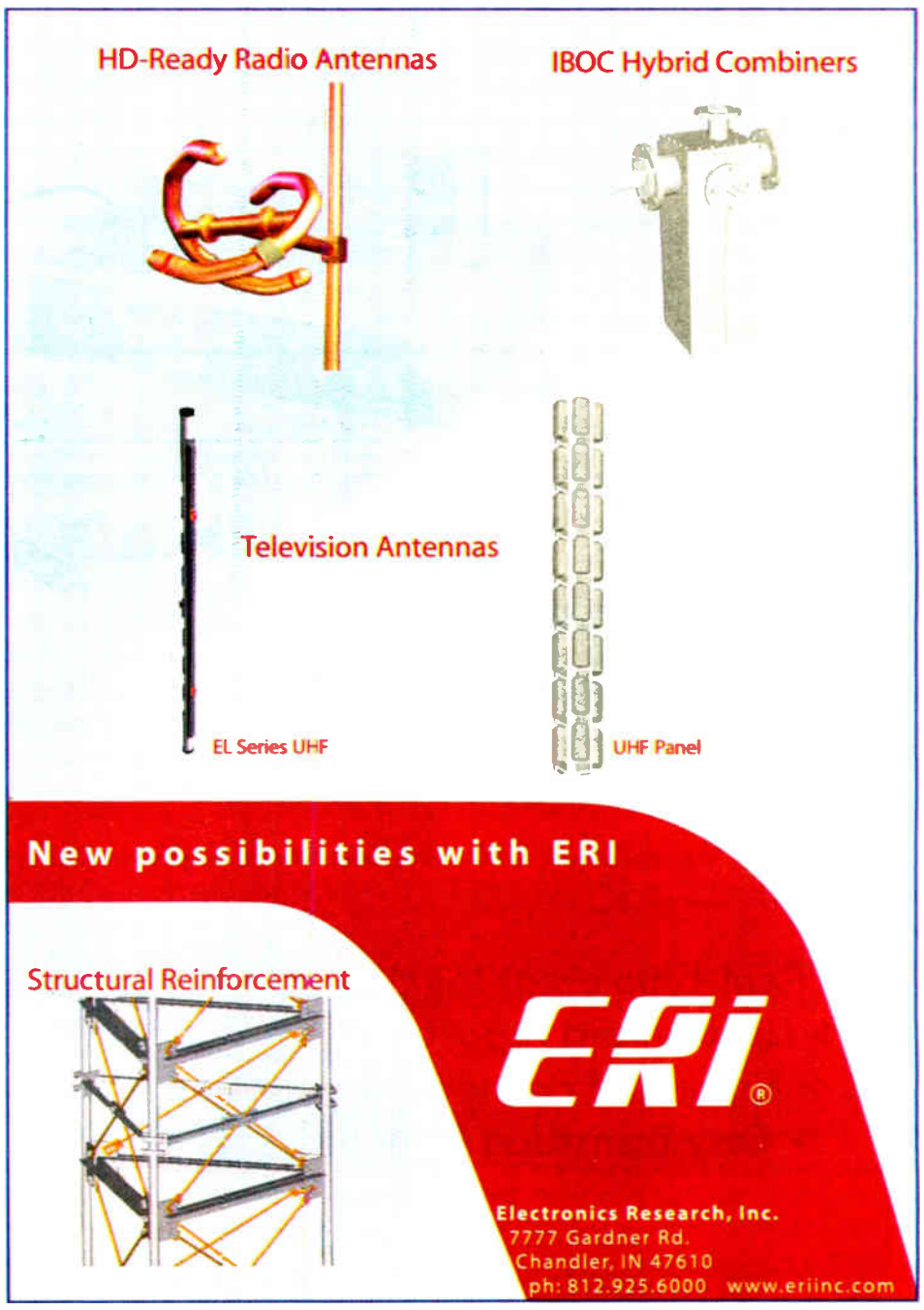
Clarke did not dispute the violations but asked for the fine to be reduced or cancelled based on a good compliance record. The original fine of $7,000 was reduced by $1,000 because Clarke replaced the chief operator.

Value of Deals Drops Off

CHANTILLY, Va. Radio station transactions are pacing comparable to last year, but their value is down. According to BIA Financial Network Inc., 411 transactions were announced through the end of July, totaling $1.3 billion in value. That compared with 442 for the same time period in 2002, totaling $4.4 billion.

BIA Vice President Mark Fratrik pointed to the FCC rule review and freeze of transfer applications.

"We expected the number of transactions to dramatically increase after the issuance of the FCC's changes in the ownership rules, and the removal of the freeze. However, given the recent stay on these rules and the resulting uncertainty, we anticipate that the second half of 2003 will not yield a large number of transactions in the last two quarters of 2002."



World Radio History

Generally Good Marks for Philly Show

Impressions from this month's NAB Radio Show in Philadelphia …

The convention isn't dying, as some of us have worried it might be. Attendance was roughly the same as last year, according to NAB. Further, it *felt* busy, not only on opening day but also on the second day, Thursday. (Friday is always slow.)

I bumped into many people I knew in my days as a salesman in these parts — engineers I hadn't seen in years because they don't go to Las Vegas, Seattle or New Orleans. Clearly, a show in the Northeast or Mid-Atlantic was long overdue. One NAB official hinted to me that the convention will be back in the area soon. …

Exhibitors, including past cynics, were pleased. Almost unanimously, they used words like "I'm pleasantly surprised" and "Traffic is robust." This is good news; suppliers have more reason to exhibit next time, giving us more reason to attend.

The exhibit floor did feel small. And some suppliers chose not to exhibit or to hedge their bets by using hotel suites. But the NAB strategy to send attendees through the exhibits to the sessions paid off. Companies that did not exhibit may be regretting their decision. …

I would like to see more technical content in the sessions. Much of what was presented was repeated from shows past. But overall, NAB managers are learning how to run a smaller and more efficient event that is still relevant.

On the social side, parties were thrown by companies like Radio Systems, which rented one of those cool boat houses on the river, and RCS, celebrating 25 years.

★ ★ ★

Could Rush Limbaugh have picked a worse time to shoot off his mouth?

Not that any time is good for such things. How ironic that the controversy over his remarks on ESPN about Eagles quarterback Donovan McNabb came just as Rush was scheduled to speak — in McNabb's city — to the radio show.

Limbaugh's keynote packed the ballroom. It also drew further unwelcome attention to radio itself at a time when our industry is trying to emphasize the good things we do. How sad that most of the country saw the NAB Radio Show logo on national TV only because it appeared on a podium as Limbaugh was failing to apologize for his remarks. …

★ ★ ★

By all accounts, Ibiquity has fixed its HD Radio codec problem. People like Tim Bealor of Broadcast Electronics and Geoff Mendenhall of Harris seem to consider the codec issue solved.

For example, in a statement, Mendenhall said, "This enhancement of the audio codec gives broadcasters superb audio quality, even at the lowest bit rate. There is no question in my mind that AM listeners will be literally 'blown away' by the greatly improved AM quality that HD Radio can now provide."

The NAB Radio Show is learning how to be smaller and more efficient yet still relevant.

Now that receivers, too, are starting to ship, radio can begin to make consumers aware of the technology. …

ERI said it has completed a working prototype of a dual-input, side-mounted antenna for FM IBOC. It reportedly can transmit the analog and digital signals without requiring a high-loss hybrid combiner or a circulator to attain isolation between the transmitters. The company hasn't released details. Production is targeted for next spring; a beta test is planned for a Greater Media facility. …

Digital radio wasn't the only technology discussed in Philly. RDS is in the news again, as we've reported; and I hear that a major radio group is about to delve into it further in a big way. Stand by. …

Readers of our free weekly e-mail updates through RW Online are aware that the market for media monitoring is heating up. Music licensing organizations like to know what is being played on your radio station.

From the Editor

Paul J. McLane

A company that drew a lot of attention on this front was MediaGuide, formed by ASCAP and YES Networks. It monitors stations in real time, electronically, without using audio "watermarking." Broadcasters aren't involved; it happens without your participation, although the technology will be of interest to radio groups and advertisers as well. MediaGuide is monitoring 2,200 radio stations in 200 markets. …

The NRSC met during the convention, and continues its wrong-headed policy of locking out reporters. Members of this important standards-setting organization feel they cannot discuss matters with journalists present — although officials contend that the meetings are "open" and say that minutes of the meetings are available.

What a shame. Trade publications (Radio World and others) are a vital part of the industry, a communication channel to thousands of people. The NRSC cannot truly be an *industry* organization if it selectively blocks participation and coverage. Until such time as this policy changes, you'll have to settle for what the NRSC chooses to tell us, what is leaked to us by parties with their own agendas or what gets into the official minutes.

I want to emphasize, however, that Radio World does not attempt to sneak around the NRSC policy. I state this because, twice in the past year, RW engineering writers, unaware of the closed-door policy and attending on their own initiative, have been told to leave NRSC meetings because they identified themselves as Radio World reporters.

News director Larry Kratka is going to be popular with his engineering staff. Kratka, of WUPE(FM) and WUHN(AM) in Pittsfield, Mass., wins an Audemat-Aztec Navigator 100 in our New Technology Sweepstakes.

This is a compact field-strength meter with GPS receiver and modulation monitor. It provides high-speed mobile analysis of FM modulation and field strength and can be configured to measure single or multiple frequencies.

MapPoint DLL allows direct exportation and map display. A PCMCIA card allows data storage; there's no PC needed while driving. The user can set the Navigator 100 to scan the FM local band and decode RBDS information. It can be used as a static signal monitor to measure modulation, RBDS SCA, pilot and audio levels. Readings can be displayed on its LCD screen or with a PC, using the included FM explorer software.

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World Radio History

Coastal Radio Plans for Next Isabel

Lessons of Nature: In Blackouts of Late Summer, Not All Stations Were Prepared

by Randy J. Stine

NORFOLK, Va. Will the locusts come next?

First a power blackout affected stations from the northern United States into Canada this summer. Now some broadcasters along North Carolina's Outer Banks are still smarting from Hurricane Isabel, which lit into mid-Atlantic states from South Carolina to New Jersey in September.

Some broadcast engineers and managers say they will plan differently in the wake of the disaster, in particular regarding how they handle their generator strategies.

Stations in the region have long been menaced by hurricanes; while many have developed emergency preparedness plans to handle them, Hurricane Isabel managed to triumph over some facilities.

Most broadcasters contacted for this story say extended power outages were the biggest challenge they faced.

Tim Nelson, chief engineer for Cumulus Broadcasting's five-station cluster in Wilmington, N.C., said Isabel was his fifth hurricane since 1996.

"We had a little down time with one of our stations when the transmitter site for WKXS(FM) was hit with a brownout. That's a lesson we've learned from previous hurricanes. When they hit, the power grid can go screwy and start fluctuating," Nelson said.

The main studios for WKXS, WGNI(FM), WMNX(FM), WWQQ(FM) and WAAV(AM) immediately switched to generator power the morning Isabel came ashore, Nelson said.

Clear Channel's Raleigh-Durham, N.C., four-station cluster had no issues other than losing power, said Ben Brinitzer, regional engineering services manager.

Brinitzer said Clear Channel mobilized its corporate emergency FM transmission van to a market just outside the reach of the hurricane to send in should any transmission facilities be lost. "The truck is a fully-equipped FM transmitter site," Brinitzer said.

Clear Channel stations in Norfolk and Richmond, Va., faced significant challenges as a result of problems with fuel deliveries and generator repair, he said.

"Some fuel we had delivered was dirty, causing generators to fail at WOWI(FM) in Norfolk, but down time was limited to just overnight after new fuel filters were put in," Brinitzer said. "Overall, the emergency operations plan we had in place worked flawlessly."

Perhaps most vulnerable were stations on North Carolina's Outer Banks, where Isabel came ashore. WTKF(FM), licensed to Atlantic, N.C., was off the air for approximately 16 hours as a result of Isabel, said owner Lockwood Phillips.

"Rising water at the transmitter site kept us from getting to it when our generator failed. We had a lot of rain; but it was the storm surge that got us. It was actually a lucky break that the generator quit, because nothing was fried when the transmitter shed flooded," Phillips said.

Water "made it up to the base of the transmitter" but did no damage, he said.

In Richmond, Va., WXGI(AM) was knocked off the air the day Isabel arrived, and did not return to service until four days later.

"We do not have a generator for backup, so we were at the mercy of (Dominion Virginia Power Company) to get the power back on," said Howard Keller, operations manager for WXGI. "We had a huge amount of devastation with trees down, but our facilities made it through fine."

Keller said he sent the radio station's staff home until power was restored. "There wasn't much we could do except to have our chief engineer prepare our operations for when the power came back," he said.

Keller said the station is in the market for a 50 kW generator, though $25,000 for a quote he received for a new one is not in the budget.

"We have a lead on a rebuilt generator that was used at a hospital. We just don't want to be caught again for that period of time," Keller said.

Ernie Warinner, chief engineer for Entercom's four-station group in Virginia

See ISABEL, page 6 ▶

Photo by Leslie Stinson

This Silver Spring, Md., home was damaged by a tree felled by Hurricane Isabel.

Generator Maintenance Tips

How is your generator? Is it ready to go without advance notice?

Ben Brinitzer, Clear Channel's regional engineering services manager in Raleigh-Durham, N.C., offers these tips:

"Clear Channel highly recommends our generators stay under a quarterly maintenance contract with a local vendor. Most all Clear Channel sites are set up this way.

"Generators should run weekly load tests — during off-hours if practical. It is not enough to just have the engines start once a week. They should actually switch to bear the load. This test is real-world and allows testing of any UPS attached to the load as well." Brinitzer recommends a schedule of regular maintenance: change oil every quarter; check fuel levels once a month; test both oil and fuel for contaminants every six months.

You don't want to find out that your fuel is contaminated *after* your station loses power.

Similarly, former SBE President Troy Pennington of Cumulus passes on these tips:

- Schedule an annual service performed by a professional service company.
- Run generator *with* full load at least weekly
- If diesel, have fuel sample test done annually
- Fuel additive if needed
- Replace all filters fuel and air annually
- Change engine oil at least annually
- Check for adequate amount of fuel storage
- Set frequency one cycle higher under no load and then check to see if it comes into 60 cycles under load
- Load test batteries
- Keep engine clean
- Flush and fill radiator every other year
- *Keep maintenance records*, what happened when there was a failure and what was done to correct it, dates, times, who performed service and so forth
- Test transfer switch, look for pitted or burned contacts, slow acting contactors
- Follow manufacturer's lube schedule for generator itself
- Perform overrun shutdown

Pennington further suggests performing these regular checks:

- Engine oil and coolant levels at least weekly and prior to testing unit
- Battery electrolyte levels weekly
- Trickle charger for proper operation
- Look for rodent nestings and ant beds inside generator enclosure
- Hoses and belts
- Block heater for proper operation
- Look for any fluid leaks

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World Radio History

Isabel

▶ Continued from page 5

Beach, Va., said, "If we learned one lesson, it was to have bigger storage tanks for our diesel generators. I'm thinking 500-gallon minimum when you are looking at running them four or five days straight."

Warinner said the studios for FM stations WWDE, WNVZ, WPTE and WVKL, which ran on a 100 kW generator, turned into a daycare center of sorts during Isabel's wrath.

"A lot of our employees brought their families here, since we had power and lights. I was a hero after I ran a power cord to get a TV to work for entertainment," Warinner said.

Except for the loss of an inner-city relay for WVKL and a new generator that quit after running for 80 hours at one of the transmitter sites, "the stations made it through in good shape."

Because of the duration of the power outages, locating fuel to power generators was a major problem, said Dave Morgan, operations manager for Sinclair Telecable's WKOC(FM), WROX(FM), WNIS(AM) and WTAR(AM) in Norfolk, Va.

Some managers learned to their chagrin that not even a generator was sufficient insurance.

"We couldn't reach either of the two fuel companies we usually use. So after several days we were desperate enough to call in several truckers from outside the area and pump diesel from their saddle tanks on their tractors using a small drill pump and hoses," Morgan said. "It took forever, but it got us through this mess."

Despite good planning and going through every plausible scenario ahead of time, Morgan said, there are bound to be things that come up unexpectedly.

"It really tests your limits and your ingenuity. We plan to recalculate our fuel consumption needs and plan accordingly. Money for bigger storage tanks is now in the budget," he said.

Morgan said a generator failed at the WNIS transmitter site and the group experienced some STL alignment problems as a result of Isabel.

David Sproul, chief engineer for ABC Radio Group's WMAL(AM), WJZW(FM) and WRQX(FM) in Washington, said the storm left the group rethinking its generator strategy.

"Our strategy has been adequate for decades. And then in less than a month we were hit with two painfully long stretches of having to rely on generators. The generator for WRQX flew apart in August after running for about 20 hours during a power outage," Sproul said. "Then when Isabel hit, the rental generator's fuel gauge was wildly wrong and we ran out of fuel."

Wheatstone Weathers Isabel Just Fine

NEW BERN, N.C. When Wheatstone Corp. executives were looking at property to build a new 50,000-square-foot facility somewhere in the eastern United States in the mid-1990s, weather certainly was a consideration.

"When we chose to move here from Syracuse, N.Y., the fact that hurricanes could disrupt operations was something we had to think about," said Yvette Sullivan, vice president of corporate relations for the radio console manufacturer. "However, we thought the impact would be no worse that having to deal with snow in Syracuse."

Wheatstone officials say they watch the weather closely and the impact it could have on their manufacturing operations — in particular, shipments to customers.

"We are fortunate that we're on high ground and about 45 miles off the ocean. So flooding is not a concern. We do take steps to protect equipment, inventory and our people," Sullivan said. "We stage all of our equipment in one area on the factory floor and cover it the best we can in case there is roof damage."

Sullivan said Wheatstone lost two days of manufacturing because of Isabel. "Like everyone else around here, we lost power. We do have 24-hour emergency power to power the lights and other necessary systems, but that's it. It was more important to have our 80 employees at home with their families anyway."

The company said the storm caused little disruption to clients. It hurried to get as many equipment shipments out the door as possible before Isabel hit. "We let our customers know what was going to happen, and tech support was still available. We minimized the amount of disruption to our customers," Sullivan said.

This was not the first time Wheatstone has endured hurricane conditions since it moved operations to New Bern in 1998. Hurricanes Dennis and Floyd hit the area in 1999.

— by Randy J. Stine

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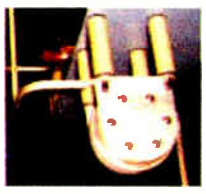

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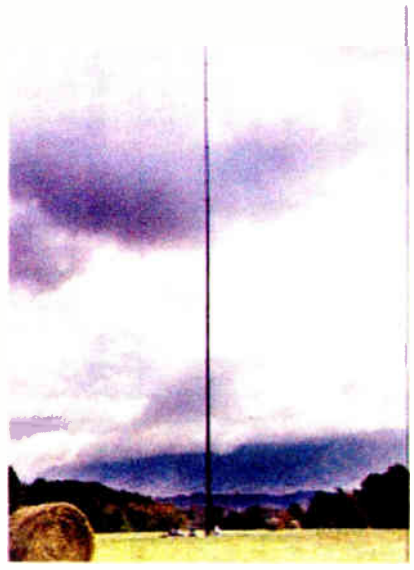

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World Radio History

NEWSWATCH

Nautel Christens DRM-Compatible Transmitter

ORFORDNESS, England Nautel inaugurated its Digital Radio Mondiale-compatible NA200, a 200 kW AM broadcast transmitter, when VT Merlin Communications launched DRM transmission for the BBC World Service. DRM is a technology for digital radio below 30 MHz.

The NA200 was installed at VT Merlin's site on Orfordness, England, and was commissioned prior to the World Radiocommunications Conference in Geneva. It was on the air with a digital signal at 1296 kHz bearing 96 degrees towards Geneva, for the inaugural DRM broadcasts.

The transmitter's coverage includes Holland, Belgium, Luxemburg and Northern France during the day, and adds Germany at night.

The NA200 was configured for dual mode operation to allow for both DRM and AM broadcasting.

Harris Tests AM DRM Transmitters

BEIJING Harris conducted what it says is China's first over-the-air Digital Radio Mondiale demonstration on the AM broadcast band. The demonstration was conducted in late August at a transmitter site outside of Beijing.

The China demonstrations were Harris' first at a customer site.

According to Don Spragg, director of high-power radio and programs for Harris Corp.'s Broadcast Communications Division, a Harris DX200, 200kW transmitter was prepared for DRM transmission in less than an hour for an extended over-the-air DRM broadcast. "The testing purpose was two-fold: to assist SARFT with the first medium-wave DRM demonstration in China; and to prove that Harris' DX line of 10kW through 2000kW transmitters operating in the field are indeed DRM-ready."

Spragg said Harris' goal during this stage of the DRM development process has been

to assure DX users that they are ready for DRM, even if they installed their transmitters several years ago. Earlier this summer, Harris conducted tests at its Quincy, Ill., factory to prove DX transmitters are DRM-ready.

Harris has transmission equipment for IBOC and Eueka-147 digital radio technologies and is adding DRM to its product lineups. Harris is developing a DRM exciter and transmitter upgrade kit to be introduced before the commercial launch of DRM receivers in 2004.

Harris is a founding member of the DRM Consortium, and its representatives serve on the DRM board and various technical subcommittees.

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All this adds up to better stability, improved audio, and greater flexibility. Already own a Matrix? ***Call us and we'll upgrade you to the newest modem technology for FREE!*** Plus we'll be happy to set up a demo of the new GSM module.

Here is what some of our numerous Beta Testers had to say:

Clear Channel Director of Engineering for St. Louis Daryl McQuinn said: **"Sounds much better than a bad [RPU], almost as good as a good [RPU], and way better than you should ever expect from a cell phone remote!"** but all KLOU's Program Director Al Brock could say was, **"Wow!"**

Shaun Kassity from Salem Communications' 104.7 The Fish in Atlanta: **"Thanks to Matrix GSM we had the best sounding remotes ever on our station!"**

Steve Kirsch of Silver Lake Audio: **"The feed was rock solid. I'm very impressed—it sounds much better than I thought it would."**

Collin Mutambo, Radio Simba, Kampala, Uganda: **"We are indeed quite impressed."**

But our personal favorite, from Jerry Dowd of Jefferson Pilot's WBT in Charlotte, NC: **"We hope to keep the betas until you get nasty with threatening letters."** Thanks Jerry. We'll take that as a compliment!

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World Radio History

DRM

▶ Continued from page 1

minds that the future of broadcast radio is digital. Many industry figures would agree that standards are good for promoting the speedy take-up of new technology. So why aren't the United States and Europe, two of the main players in this drama, taking the same route to making digital radio a reality?

While the U.S. radio industry has been moving towards the adoption of Ibiquity's HD Radio as the digital replacement for AM and FM, alternative technologies dominate elsewhere. For several years, driven by developments begun in Europe, much of the rest of the world, including Canada, has begun implementing the Eureka-147 standard as a replacement for FM transmissions. South of the border, Mexico has carried out limited tests.

Differences

More recently, Digital Radio Mondiale, another system with European roots, has been launched to replace AM broadcasts on frequencies below 30 MHz.

In fact, there are good reasons for the existence of these various technologies; each has emerged as a result of differing approaches to radio that have evolved over the history of the medium. The development of radio broadcasting and the technical planning parameters used in its delivery are different on the two sides of the Atlantic Ocean.

Commercial broadcasting, targeting population centers in particular, has dominated U.S. radio. European broadcasting, on the other hand, was founded on the principles of universal coverage and public service broadcasting, as developed by the U.K.'s BBC back in the 1920s, as related by Asa Briggs in "The History of Broadcasting in the United Kingdom," published in 1961.

It was only in the second half of the 20th century that commercial broadcasting became firmly established across Europe where public service broadcasters, funded by various means, remain major players in almost every country. According to Annika Nyberg of the World DAB Forum, speaking at IBC in Amsterdam earlier this year, averaged out across Europe, public service broadcasters are still responsible for more than 50 percent of radio broadcasting there.

Technically, the frequencies used for domestic AM and FM broadcasting in the United States and Europe are broadly similar. (Europe, part of International Telecommunication Union Region 1, which also covers the former Soviet Union, the Middle East, China, Japan and Africa, has a slightly smaller AM medium-wave band and an additional AM long-wave band for very wide-area coverage.) However, despite the similarities, individual frequency allocations on AM and FM are planned rather differently.

Focusing on AM first, European planners operate with channels spaced at 9 kHz rather than 10 kHz apart. Moreover, allocations are made to first-adjacent-channel spacing; a station covering an adjacent area can be placed on an adjacent frequency. This would be highly unusual in the United States, where planners only allow stations in an adjacent area to be a minimum of two channels (20 kHz) away.

To avoid unwanted "splatter" affecting neighboring signals, European stations are limited in terms of audio bandwidth, with frequency roll-off starting at around just 5 kHz. Because audio performance is so limited in comparison with the United States, analog AM stereo was deemed a non-starter in Europe; it was tested but never received regulatory approval there.

FM broadcasting in most parts of Europe is younger than it is in the United States. The BBC began broadcasting on Band II FM frequencies (from 87.5 MHz to 108 MHz) as far back as the 1950s. However simulcasting of AM services was the norm until only about 20 years ago. That's when demand for additional frequencies and better audio quality saw FM become popular in its own right.

In many European countries, much of the FM band is dominated by national networks, both commercial and public service, which typically occupy blocks of spectrum a little over 2.0 MHz wide in order to achieve wide-area, near-universal coverage. A typical network uses a grid of high-power transmitters interspersed with lower-power "fillers" or relays to solve reception problems caused by geographical features such as clusters of tall buildings, hilly or mountainous terrain.

Eureka is ...

Large chunks of the FM band in Europe therefore are occupied by national and regional networks, the type of services for which Eureka-147 is designed. In many European countries, national networks have been simulcast via DAB for several years.

Because they use entirely separate frequencies outside the traditional broadcast bands, these digital transmissions can be continuous, operating around the clock. Today, as well as real-time rebroadcasting of existing analog services, new all-digital services for which space can't be found on analog frequencies also are being launched.

A standard DAB multiplex can deliver no less than six high-quality digital networks (each at 256 kilobits per second), a larger number of services at a lower data rate or a combination of services at differing data rates, in just 1.5 MHz of spectrum.

However, for non-network, local services, spectrum efficiency is reduced because Eureka-147 frequencies carrying different program material cannot operate in areas adjacent to each other; mutual interference is the inevitable result. Different frequency blocks must be used.

See DRM, page 10 ▶

DRM: What It Is

Non-technical readers may find it confusing to keep track of the names and acronyms that are bandied about in describing digital radio.

What is DRM?

Digital Radio Mondiale is a digital radio technology for shortwave, medium-wave/AM and long-wave. It was developed by members of the DRM consortium, which was founded in 1998 as a mostly European-based organization and has grown worldwide. Thanks to a summer launch, the technology has received a lot of attention this year.

The initial primary members were Radio France Internationale, TéléDiffusion de France, Deutsche Welle, Voice of America and Thomcast. They sought a method for shortwave and AM broadcasters to go digital. DRM uses existing frequencies, so listeners don't need to change their habits, proponents say, to enjoy better sound, new digital programs and data services.

Another system, Eureka-147 digital radio, used by many European countries, is designed so that several broadcasters transmit from the same facility at the same power level and coverage area. It uses different spectrum for the digital signal, such as L-band. This is not practical for most shortwave broadcasters, who want to be able to go digital with existing frequency allocations

What would stations need to broadcast DRM? Supporters of the technology say most AM and shortwave broadcasters can transmit DRM using existing transmitters with minor modifications, if the units are less than 15 years old.

Its proponents believe DRM will help overcome existing propagation problems, especially fading and the different kinds of interference that exist in long-distance shortwave signals.

U.S. members of the DRM consortium include IBB/Voice of America, the National Association of Shortwave Broadcasters, Harris, Dolby Labs, Continental Electronics, Kintronic Labs, Sangean America and TCI, a Dielectric Co.

DRM has a software radio available for about $70. Consortium members hope the radio, made by Fraunhofer, will encourage enthusiasts such as DXers to tune in DRM broadcasts.

Several DRM members began broadcasting DRM signals earlier this year. DRM has established a Web page devoted to distribution and support of the software radio project (*www.drmrx.org*).

DRM radios priced for consumers are expected to be available by the end of next year.

The World DAB Forum, a marketing group for the Eureka-147 system, and the DRM Consortium are cooperating to promote production of dual Eureaka-147/DRM radios. The groups have members in common; they announced their cooperation at the IFA consumer electronics event this summer in Berlin.

As an outgrowth of this announcement, Sony committed to support both technologies. It aims to bring portable digital radio receivers to Europe in early 2004.

Officially, there are two International Telecommunication Union-approved digital radio standards for medium-wave/AM: DRM and Ibiquity Digital's system. For its marketing efforts abroad, Ibiquity is focusing on non-European countries, such as Latin America.

Primary markets in which DRM sees potential use for its technology, based on receiver sales and domestic shortwave use, are Germany, Britain and France, followed by China, India, Australia and the former Soviet Union.

— by Leslie Stimson

World Radio History

Chapter One

Once upon a time, a radio engineer and talk show host named Steve grew frustrated with the awful sound of his telephone system. So, he read lots of books about Digital Signal Processing and invented the Telos 10. After that, Steve's phones sounded great, and he was happy. Lots of other radio stations that used it were happy, too, and Steve's company grew large and hired more smart engineers. They partnered with the MPEG folks and introduced MP3 to the world with Zephyr. And Zephyr sounded so good, it made *lots* of people *very* happy.

About the same time, another radio engineer named Frank was figuring out how to make audio sound both loud and clean . Frank began building processors for lots of important big-market radio stations. Soon, Frank teamed his audio chops with Telos' DSP gurus , and built the first digital audio processor that gave stations the loud, clean, punchy sound they wanted without the digital "grunge" – which made lots of Program Directors and engineers at even more radio stations happy . And Frank's processors became the choice of top stations like , , , , and many more.

Now, Steve and Frank's companies have the biggest R&D team in the industry, with respected broadcast engineers like Jeff Keith , scientists like Greg Shay , and studio-audio experts like Mike "The Catfish" Dosch . These guys think up lots of innovative gear together; cool stuff like the Zephyr Xstream ISDN Transceivers with leading-edge MPEG AAC , and Omnia-6 , the broadcast audio processor preferred by major radio stations around the world, and the world's first broadcast phone system, TWOx12 , that takes advantage of the digital clarity of ISDN, and the truly amazing little Zephyr Xport POTS+ISDN codec which features aacPlus® , and is winning lots of awards.

...and that's just the *beginning* of the story!

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World Radio History

DRM

▶ Continued from page 8

inevitably reducing spectral efficiency.

Because FM and DAB signals cannot be simulcast on the same frequencies, broadcasters and regulators needed to find new allocations for the Eureka-147 services. Current international allocations are in the old Band III TV band (174 to 240 MHz) and in the L-Band (at 1.4520 to 1.4920 GHz including some 12 MHz of satellite delivery spectrum).

Identifying and allocating these new frequencies took a great deal of time and certainly delayed the introduction of DAB services in some parts of Europe; moreover there are already concerns that current allocations are inadequate and that more spectrum will be needed in the near future.

More than two years ago, the Association of European Radios, a trade body representing the interests of private commercial broadcasters in France, Germany, Greece, Italy, Portugal, the Netherlands, Spain, Sweden and the United Kingdom, said, "Consideration should be given to the early release of additional spectrum where necessary."

In the Netherlands, OLON, the organization that represents the interests of non-commercial, community-based broadcasters, published a report last year that looked at alternative approaches to implementing digital radio at the local level. This report, commissioned by the Directorate General of Telecommunications and Post in the Netherlands, was a response to problems encountered in finding sufficient spectrum to allow all local stations to begin DAB transmissions.

The DRM standard is a drop-in replacement for existing AM allocations.

On short-, medium- and long-wave frequencies, the main problems to be solved by the introduction of digital transmission technology are improved resistance to interference and fading, better audio quality and the ability to operate single-frequency networks for the provision of wide-area services. Perhaps having learned from the difficulties encountered in finding new frequencies for DAB allocations, the DRM standard is a drop-in replacement for existing AM allocations. Simply convert the transmitter, drop the radiated power level slightly and a DRM service is ready to go.

A combination of operational and technical factors is behind the different implementations of digital radio found in the United States as compared to Europe. Having established what digital transmission technologies are intended to achieve, how then do the main contenders (DAB, DRM and HD Radio) work?

In fact, the underlying concepts of these three systems are similar. Each is based on spread-spectrum technology, originally developed for military communications and loosely related to that used in some wireless communications standards such as Bluetooth and the various 802.11 standards.

Broadcasters use a spread of multiple-carriers known as an Orthogonal Frequency Division Multiplex or Coded Orthogonal Frequency Division Multiplex to reduce the impact of frequency dependent, multi-path and signal degradation. Program information is spread across multiple carriers as well as being distributed across the time domain so that the effects of instantaneous interference also are minimized.

The United States and Europe aren't taking the same route to making digital radio a reality.

Before looking at the DRM system in detail, it's worth examining the particular features that distinguish DAB and HD Radio a little further. Of all three systems, the Eureka-147 DAB multiplex system has the greatest program data-carrying capacity, typically using 1,536 carriers spread over 1.5 MHz.

This program multiplex is dynamic, that is to say it can be configured "on-the-fly" to accommodate differing numbers of program services within the total data capacity available. For example, if a major news story or emergency occurs, two or three mono speech-based services could replace a high-quality stereo music service.

A Eureka-147 DAB multiplex also can carry non-audio data, such as pictures and advanced Radio Broadcast Data Services-like information. Program services are merged into a single data stream, which is transmitted, then decoded by the receiver. All program services in a multiplex have the same geographical coverage.

The two HD Radio services have some similarities as well as differences. In its initial simulcast mode, AM HD Radio uses approximately 160 carriers, spread over three 10 kHz channels.

The FM version of HD Radio is more complex and in its simulcast mode can use up to approximately 1,100 carriers in two identically sized blocks of between 70 kHz and 97 kHz each, depending on mode employed, creating a maximum simulcast bandwidth of 400 kHz.

Although both are described as "in-band, on-channel" systems, it is clear that both the AM and FM systems rely on the use of "in-band, adjacent-channel" approaches to provide their simulcast (combined analog and digital) modes. Going back to the earlier explanation of differing planning standards, this is why AM HD Radio could not be used in its current form in Europe or other ITU Region 1 or 3 countries (everywhere outside the Americas).

Because of the planning criteria used in these ITU Regions, HD Radio simulcast modes in particular would cause serious interference to nearby services operating on adjacent channels. In the HD Radio system, digital energy is inserted into sidebands, radiated on adjacent channels. Because station allocations are packed closer in Europe than they are in the United States, this would cause interference problems if the same techniques were applied in Europe.

Broadly speaking, a similar problem would exist for FM HD Radio. FM planning in many parts of Europe relies on "interference limiting" beyond fringe areas of reception. Finding 400 kHz allocations (two adjacent FM stereo channels) that would not interfere with existing services would typically be almost impossible, particularly in larger urban areas.

The approach to how existing analog AM and FM transmissions are accommodated is therefore at the heart of the differences between HD Radio and DAB/DRM. HD Radio starts from the premise of beginning operations by simulcasting, transmitting both analog and digital signals within existing analog band plans, sharing individual channels with existing analog signals.

For the planning reasons discussed, this option is really a non-starter in ITU Regions 1 (Europe, Africa, the former Soviet Union, the Middle East, China and Japan) and ITU Region 3 (Asia and Australia). As a result, the DAB system and to a lesser extent the DRM system eschew this option. Instead, Eureka-147 DAB runs alongside established FM allocations but on completely different dedicated frequencies outside the traditional radio broadcasting bands.

The second part of this two-part story appears next issue.

Digital
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JK Audio's Got A Digital Hybrid With Features Just Right For Your Job – Whatever Your Job Is!
Over the years, we've heard many ideas of what the "perfect hybrid" might be. We've learned that the "perfect hybrid" is actually different things to different people, depending on its use. The good news is that it really comes down to a handful of features, combined in ways that make a lot of sense. We're happy to introduce a series of digital hybrids that hit the nails on the heads, making them perfect for their respective jobs. Check them out and let us know what you think.

INNKEEPER 4 squeezes four independent digital hybrids in a 1U rack space. The front panel keypad, display, and handset jacks provide easy speed dialing and call setup. Maintain excellent separation between your voice and the caller. XLR output jacks contain only the caller's voice. Available July 2003

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World Radio History

TRACKING DOWN THE STORY MIGHT BE HARD. SENDING IT WON'T.

Unfortunately, the places in the world that make news don't always build the best local communications networks. Which can be a bit of a problem for reporters and broadcasters, especially when live transmissions or urgent news updates are demanded. But, fortunately, Inmarsat has the answer. Or rather, a range of them. Our unique network covers almost the entire globe, with an unrivalled record for reliability. And offers a full suite of Inmarsat Global Area Network solutions, including high-speed voice, data and video transmission; web access; e-mail and fax.

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World Radio History

Keep Goodies In, Snakes Out

by John Bisset

Why do snakes love transmitter sites?

I recently spoke with an engineer who told me of nests of black snakes he found in a previously unused communications building. As snakes search for warmth, they are drawn to a transmitter building's heat source.

An inexpensive method of deterring snakes is the common mothball. These can be scattered around the floor of an AM antenna coupling unit or in more populated areas like transmitter buildings, placed in several small plastic cups or dishes, as seen in Fig. 1.

Mothballs will evaporate with time, so they need to be replenished. Keep the box sealed or you'll find the box empty when it comes time to replenish the containers.

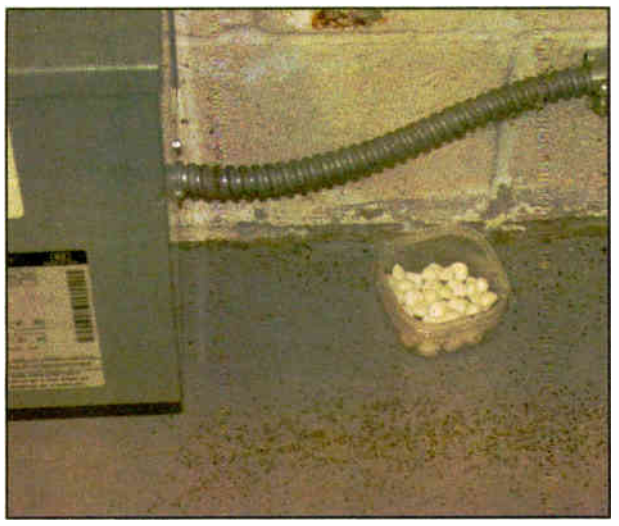

Fig. 1: Set a dish of mothballs in the base of your equipment racks, in floor troughs and around the building.

Mothballs serve all kinds of purposes. At one of the NAB Transmitter Workshops I host, a suggestion was made to use a mothball as a guaranteed "payment for services will be made in 30 days." It seems this contract engineer got tired of a particular client dragging his feet in paying his bill. After fixing the transmitter and anticipating the slow pay, the engineer opened the back door of the transmitter, and, while it was still off, slipped a mothball between the HV interlock contact, forcing them open. He then restarted the transmitter and waited about 30 to 45 days for the mothball to disintegrate.

The day that happened, the transmitter shut down and the station called the engineer for service. Payment for the previous visit was required when the engineer showed up. Neither Radio World nor I endorse such a collection method. I describe it to show that, in this day of tightening budgets, it's frightening the tactics contract engineers must use to get paid.

★ ★ ★

Before we know it, the holidays will be upon us.

Figs. 2 & 3: A gift idea from Pock-Its. The pouch can accommodate a Leatherman Tool, Maglite, screwdrivers, Sharpie marker and a key ring.

Fig. 2 shows a neat little gift idea that you can leave as a hint. Greg Gallagher of Clear Channel's Washington properties sports this neat belt organizer, from Pock-Its.

As you can see in Fig. 3, in addition to space for a multipurpose tool and a mini flashlight, there's a pouch for screwdrivers, a Sharpie marker, even a key ring. The beauty of this pocket pouch is that it uses a hook-and-loop attachment flap that fits around your belt. This flap permits quick removal of the pouch, without removing your belt. Visit *www.pockits.com*.

★ ★ ★

Storms may have damaged your transmitter rectifier stacks. Before trashing them, check to see if they can be rebuilt. As engineers are forced to do more with less, repairs on these expensive parts may be warranted.

There's a site, provided by engineer Paul McCain, that sells a variety of diodes, especially those with high peak voltage ratings. The company is HVCA, found at *www.hvca.com*. Its telephone number is (732) 938-4499.

When you call, tell 'em you heard about their company from the pages of Radio World.

★ ★ ★

A lot of engineers also serve as site managers. Many sites have abandoned pager transmitters from companies long out of business. These transmitters are rack-mounted in short ventilated racks, usually with lockable front and rear panels.

See WORKBENCH, page 14 ▶

Digitally Diverse

Omega_FM – $5880

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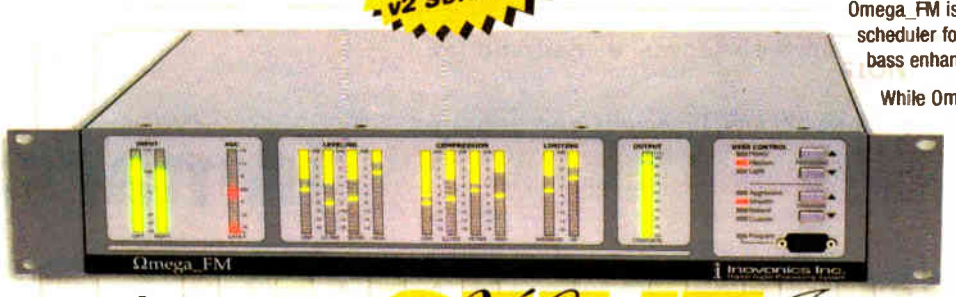
While Omega_FM's composite/MPX output feeds your existing FM exciter, the fully independent AES/EBU digital output can be configured for flat, 20kHz response with programmable delay. This allows a single processing chain to impart a common 'sonic signature' to simultaneous FM and DAB transmissions. The inherent audio quality limitations of FM (15kHz cutoff, plus pre-emphasis and its attendant 'protection' limiting) will not compromise the digital broadcast.

Despite its modest price, Omega_FM challenges the versatility and performance of any processor on the market. Even if you are delighted with what you're using now, see your preferred equipment supplier for a comparison demo at your station.



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World Radio History

Workbench

▶ Continued from page 12

Pete Loewenheim, chief for WHAG(AM) in Hagerstown, Md., found one of these lockable cabinets, shown in Fig. 4.

In a busy station environment where curious fingers like to push buttons, Pete used the emptied communications cabinet to house the station's Burk remote control system, the remote control computer and UPS, as seen in Fig. 5.

The beauty of this cabinet is that only the keyboard and monitor are exposed to curious fingers. The ventilated cabinet keeps the rest of the equipment under lock and key, giving the operators access only to what they need.

John Bisset has worked as a chief engineer and contract engineer for more than 30 years. He is the northeast regional sales manager for Dielectric Communications. Reach him at (571) 217-9386. Submissions for this column are encouraged, and qualify for SBE recertification credit.

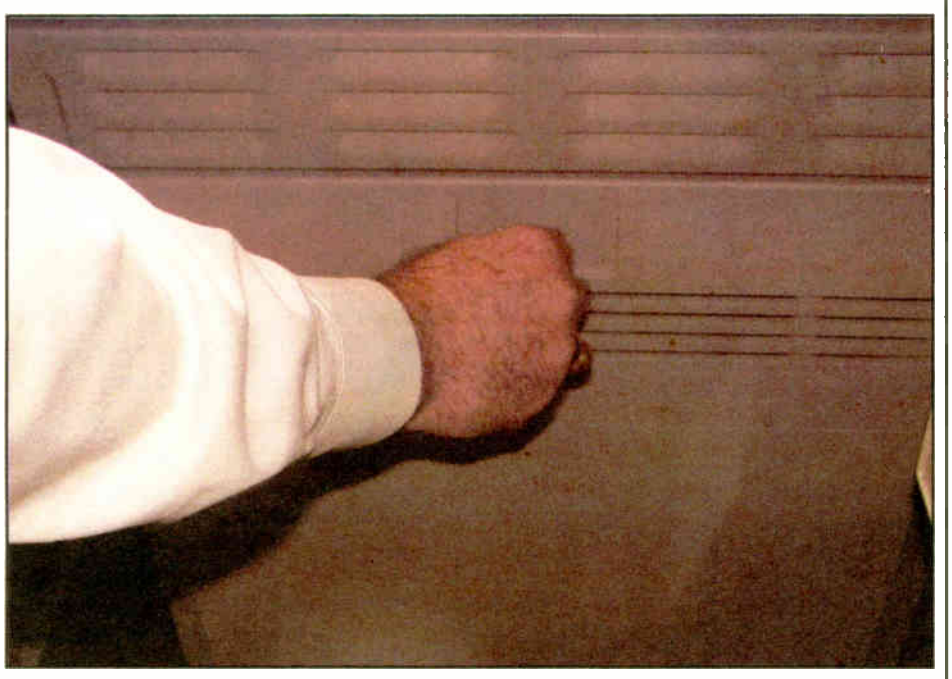


Fig. 4: An empty pager rack ...

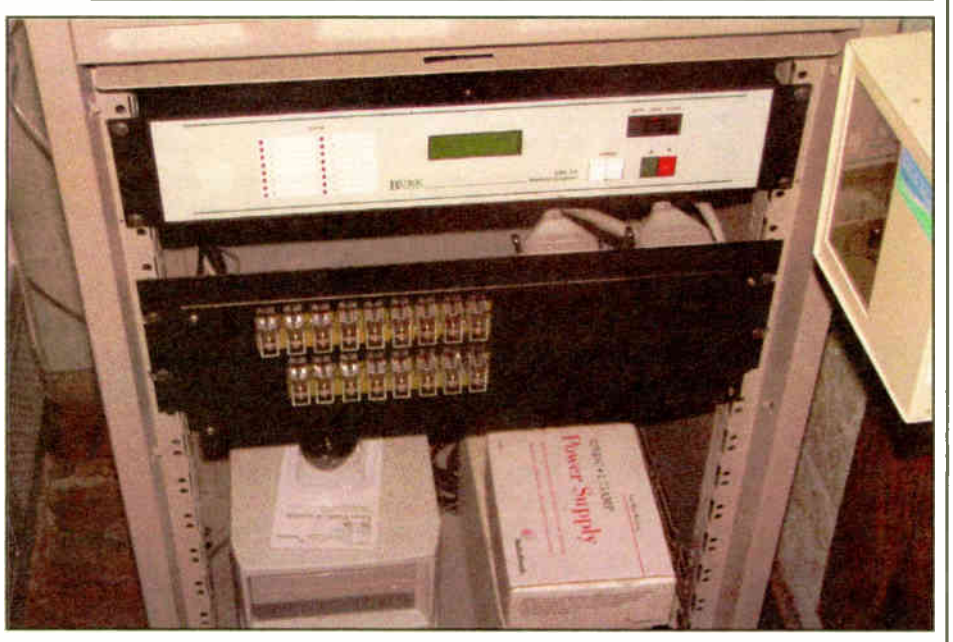


Fig. 5: ... can be put to good, secure use.

NEWS MAKER

After 25 Years, WOR's Strickler Steps Down

Shelly Strickler retired this summer after exactly 25 years at WOR(AM) in New York. She spoke with Radio World Associate Editor Kelly Brooks.

***RW:** When did you start at WOR and what was your title?*

Strickler: I started at WOR on July 31, 1979. On Aug. 1, I retired. My title was anchor/reporter.

Over the years, I did it all. There were times I did mostly outside reporting, and for the past 10 years, I was basically an anchor. I covered all the major stories in New York City, including two visits from the Pope, two Democratic conventions and numerous trials.

***RW:** How were you introduced to the broadcasting industry?*

Strickler: When I graduated from Brooklyn College in 1962, there weren't too many women broadcasters. The only women on TV, for example, were called weather "girls." It wasn't until the early 1970s that women began cropping up in broadcasting.

I realized this was for me. I was a news junkie and I loved using my voice. I went back to school to continue my education and took courses in writing for radio. I got my first job in 1976 at WGNY(AM-FM), my second at WCTC(AM) and then in 1978, I landed the job at WOR. The rest, as they say, is history.

***RW:** How has the business changed over 25 years?*

Strickler: The most obvious change is the technology. When I arrived, it was typewriters, carbon paper and teletype machines.

The other major change is the way news is reported, and the choice of stories aired. Today, there is more emphasis on "pop" news and cramming as much as you can into a newscast. I attribute this change to the proliferation of stations, as well as the competition of myriad radio and cable stations. The "sensationalism" of news has become more common.

Photo by Tom Ray

Strickler and WOR Co-Workers

***RW:** Most memorable moment?*

Strickler: The coverage of the Iran hostages' return in January of 1980. Busloads of former hostages arrived at West Point after 444 days in captivity. It was exhilarating to report their return.

***RW:** What are your plans for retirement?*

Strickler: When I return to New York (from vacation), I will look at my options. I already have plans to do voiceovers and lectures community centers and libraries. I may even end up doing part-time work in radio again. Whatever I do, I will look for flexibility, more time to be creative and productive and of course, more time with my family.

World Radio History

TECH TIPS

A Satellite Downconverter Tool

by Mark Persons

If you are fortunate enough to own an RF spectrum analyzer but are not blessed with one that goes above 1 GHz to look at satellite transponders, I may have an almost-free solution to your problem.

An opportunity presented itself recently when a local station was going to "throw out" a Scientific Atlanta Encore DSR-3610 Digital Satellite Receiver. This $3,000 unit was made in 1997 and now is obsolete. However, it has a programmable synthesized local oscillator and downconverter onboard to convert L Band (950-1450 MHz) input to a 70 MHz IF (Intermediate Frequency). It is only one rack unit (1-3/4 inches high) so there is no difficulty hauling it around. The receiver appears to be essentially the same as the Encore AD4595 used for ABC.

Jerry Weddle at Harris Broadcast is familiar with satellite receivers. He connected me, via a telephone conference call, to Buzz Bednar of Starguide Digital Networks. His help enabled me to find a point to sample the 70 MHz on the main board in the receiver. It is test point TP336.

This hint may allow you to increase your test equipment inventory for next to nothing. You can never have too much test equipment.

Because the receiver is not capable of decoding the current digital scheme, the front-panel headset jack is useless. I removed the headset jack and put a BNC panel jack in its place. No metalwork was required because the headset jack and the BNC jack use the same 3/8-inch diameter hole.

I ran a short piece of RG-58A/U 50-ohm coaxial cable from TP336 to the front-panel jack. Just to make sure that no DC voltage would ever appear on the coaxial cable and the connected spectrum analyzer, I inserted a small .01 mfd/50 volt ceramic dip capacitor in series with the center conductor of the cable where it connects to the circuit card. This was all that was required to modify the receiver.

Putting it to use

It didn't take long before a client called to say, "Help me with a new satellite dish installation."

The new test equipment setup was a big help in finding the satellite. The satellite transponder was visible at 70 MHz. Because the digital signals look like noise on a spectrum analyzer, there is no distinctive shape to look for. Analog video has a definite look. One great attribute of the Encore receiver is that the transponder can be chosen by front-panel controls. Push "Set Xpndr," then use the up and down arrow keys, followed by "Enter." Another nice feature of the Encore is a jumper plug on the back with the option of powering an LNB on the dish.

I am still learning my way through this one; but initial results are good. I hope this hint will allow you to increase your test equipment inventory for next to nothing. After all, you can never have too much test equipment.

Another inexpensive satellite locating tool has become available recently. It is a small box with an analog signal strength meter. You connect it in series with the 75-ohm line at the satellite dish LNB output. Marketed as the PG-753 Satellite Finder Kit, I purchased one for about $40 as a closeout item from MCM Electronics. Friends tell me that other companies have them, too. The meter is great for initially finding a satellite. It even comes with a military-style compass for getting the dish pointed to the right part of the sky.

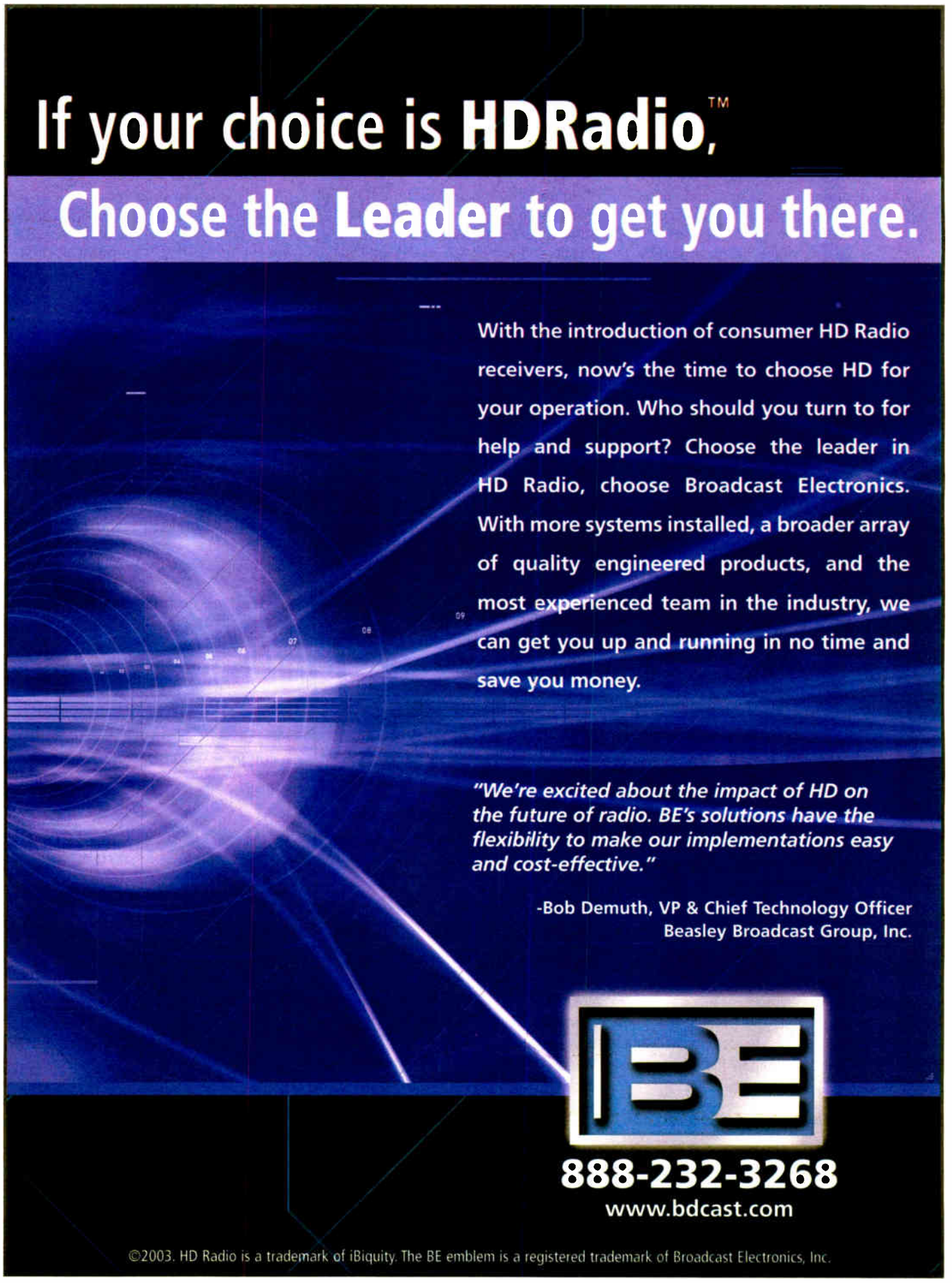
As for fine-tuning on a digital satellite transponder, the best tool is the EBNO indication on the receiver that the station will be getting audio from. Adjusting for maximum signal strength can be a misleading indicator. You could be peaking on a strong carrier on a transponder of the opposite polarization.

Use EBNO to adjust azimuth, elevation and polarization to get the best possible performance. I recommend you do this even if the satellite receiver is happy when you are there. If you don't do your best, it could go out of stable lock when the weather turns poor.

In fact, I like to "shake" the dish to see how it performs. A windy day could easily create that condition and cause problems you might not otherwise see when you are there.

See you down the road. I'll leave the soldering iron on for you.

Mark Persons, WØMH, is certified by the Society of Broadcast Engineers as a Professional Broadcast Engineer and has more than 30 years experience. Visit www.mwpersons.com.



World Radio History

College Show

▶ Continued from page 1

"The regulatory and statutory environment is highly unfriendly to the development of student Webcasting; the prospect of BPL (broadband over power lines) could devastate Part 15 stations legally using carrier current and other technologies to broadcast unlicensed AM stations; and unless the Mitre report on LPFM and third-adjacents is given proper evaluation and credence, many student outlets will never get the opportunity to develop new LPFM stations."

The convention is co-sponsored by the Associated Collegiate Press and College Media Advisers in partnership with CBI.

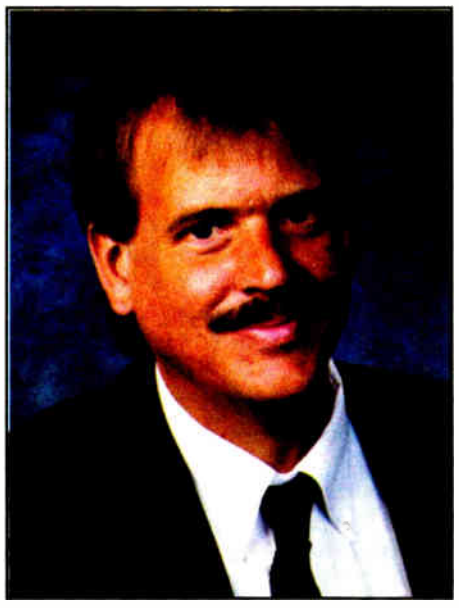
Robedee, who is also the broadcast chair of CMA, general manager of KTRU(FM) at Rice University and staff adviser of Rice Broadcast Television, touts the show as a low-cost educational and networking opportunity. It will cover "FCC regulations, station inspections, promotions, sales, programming equipment, convergence, services and more."

While new technologies emerge and compete with radio, the latter continues to be the dominant educational and social medium for college broadcasters, according to Robedee.

"Radio stations make up the majority of our members," he said.

Session central

About 70 broadcast sessions are scheduled. Robedee highlights a handful of workshops including a three-part series on underwriting covering the marketing and legal issues involved; student roundtables, where peers discuss industry issues; a career fair and career-oriented panels (including a how-to session for demo tapes); and a session on on-air fundraising.



Will Robedee

"We are very pleased with the level of interest from people and groups outside of our organization," said Robedee. "Stations, NPR, SBE, vendors and many others are either taking part on panels, attending the convention or participating in booths on the exhibit floor."

Ronald Spielberger is executive director of College Media Advisers and serves as fall convention coordinator. He's also on staff in the department of journalism at the University of Memphis in Tennessee. He said he's looking forward to the keynote address by NPR's Barbara Bradley Hagerty. She's expected to share her insights on the industry and take convention delegates behind the scenes of significant stories of the day.

"NPR is also conducting a radio training workshop for a limited number of students during the convention," said Spielberger. The NPR Next Generation Radio Journalism Training Project provides a hands-on training experience with professionals acting as mentors.

Webcasting sessions are a big focus at the show as well.

Live from the show

"From the basics of how-to, legal issues, Web site design and a forum with SoundExchange Executive Director John Simson," said Robedee. "Students will be Webcasting a live audio stream at the show."

The viability of student Webcasting is one issue Robedee points to as a special concern to college broadcasters.

According to Robedee, while CBI's primary mission is to serve college electronic media, its *focus* is to "help stations understand the complex and ever-changing technological, legal and regulatory environment in which we operate. ...

"With respect to students who are seeking an electronic media career, the concerns must focus on training, job opportunities and an organization like CBI that provides a realistic insight into the changing face of media," said Robedee.

"We also need current and new media to continue to collaborate with us to make sure students, educators and other student media professionals provide the necessary tools."

Of course, for college students, a job in the real world is the immediate objective. Eric Aiese recently graduated from Harvard University. While in school, he served as president of WHRB(FM), the student-run commercial radio station, serving the Boston market.

Aiese, who works in marketing for Comrex, attended the College Media Convention in 2001. He gathered ideas at the show that he incorporated into daily operations at WHRB.

"From programming and promotions to sales and engineering," he said, "I got a fresh perspective on not only the day-to-day responsibilities of radio station operation, but on bigger issues as well."

With his previous radio experience, Aiese had a leg up on many others after graduation and his foray into the real world.

"It's the old Catch 22," said Aiese. "Nobody will hire you without experience, but you can't get experience without a job."

Dan Knight serves as a CBI board member and adviser to KVR(TV), the student television station at the University of Texas at Austin. He's also a lecturer in the department of Radio-Television-Film at the school. He spent 15 years hiring people — some straight out college, but with no college media experience.

"Almost none had a good idea of what a real job is like," said Knight. "what's expected of them, office politics, etc. Many weren't even very useful for the first six months, and that's after four years at some very fine universities."

Young people are absolutely interested in radio careers, according to Robedee.

Not your father's industry

"But radio is much different than it was 10, 20 or 30-plus years ago," he said. "Radio is not as much an integral part of life as it was then because of new and competing media."

The CBI National Student Production Awards Presentation will be a highlight of the show, marking top honors in 21 categories.

The show will also be used as a backdrop for CBI to announce the results of the election for a pair of seats on the board of directors.

Pettigrew is a free-lance anchor and writer at WTOP(AM-FM) in Washington and owner of Rover News Services in Alexandria, Va. Reach her via e-mail to rovernewsservices@yahoo.com.

Fact Box

What: The National College Media Convention

Where: Dallas Hyatt Regency at Reunion, Dallas

When: Nov. 6-9

Registration: $89 for CBI students, $115 for non-member students, $115 for member advisers, $155 for non-member advisers

Info: *www.collegebroadcasters.org*

Show Session Sampling

- Creative Uses of Sound — A Listening Session
- Webcasting Legal Issues
- Ethical Decision Making in News
- Adding Automation to College Radio
- The Future of Broadcasting
- Student Radio GM — Station Managers Roundtable
- How Do I Get a Job in Broadcast?
- Ask the Experts: FCC and Engineering Q&A
- Unattended Radio Station Operation
- Public Radio and Why You Want to Work in It
- New Radio Technology — IBOC, Streaming, Digital Links and More
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World Radio History

"Who's Buying What" is printed as a service to readers who are interested in how their peers choose equipment and services. Information is provided by suppliers.

In Cartersville, Ga., **WBHF(AM)** moved its studio to a historic district and is using **Digigram** EtherSound audio bridges for an Ethernet run of four miles between the old facility and the new studio, allowing it to keep satellite dishes at the old location. Mark McKelvey is director of management Information Systems for the station owner, Anverse Inc.

"Since we had fiber running between the corporate and the new station, we were able to install Digigram's ES8in and ES8out using the existing Ethernet. We set up a virtual LAN, which dedicated a 100-MEG bandwidth on the network and the five satellite dishes at corporate travel as streams through the system and break out on the studio end." The streams are sent to the transmitter at the station as needed. ...

Premiere Radio is using the Confirmedia technology of **Verance**, which provides audio watermarking technology for broadcast monitoring and airplay verification. ...

Rental supplier **VER (Video Equipment Rentals)** bought a large inventory of **Telex Pro Audio Group** products, including EV, Telex, RTS, Dynacord , Midas and Klark Teknik professional audio and broadcast equipment. ...

The CMJ Network and **Audible Magic** said **SESAC** became the first corporate customer to use data from CMJ's Realtime Airplay Metrics (RAM) airplay reporting service. RAM tracks airplay on college, non-commercial and "early-adopter" radio using digital audio identification technology. ...

Vermont Public Radio placed an order with **Logitek** for four Audio Engine Digital Routers with a mix of analog and digital I/O cards; two Numix-12 consoles; two vMix "virtual" consoles; five Route3 Router controllers; and a Button12 Router selector panel.

Separately, **KKDA(AM-FM)** in Grand Prairie, Texas, part of the Dallas market, purchased a Logitek Audio Engine for use as a router in its facility. Engineer Gary Wachter said the system is a replacement for an ITC router that was damaged in a lightning strike. ...

Dalet Digital Media Systems said DaletPlus products have been adopted by 33 organizations totaling some 2,000 workstations. The DaletPlus platform was introduced at IBC 2002. Clients include **KQED** in San Francisco, the **U.S. Senate**, **Washington & Lee University**, **Catalunya Radio** in Spain, **Radio France International** and **Russian State Television and Radio.** ...

Sanilac Broadcasting, a group of three stations in southeast Michigan, chose **APT's** Cool Edit Pro plug-in so that it can handle editing and file imports from Scott Studios AXS system files. ...

Orban/CRL is providing audio processing equipment to **Harris Broadcast** as part of a sale of radio transmitters, equipment and installation assistance to rebuild the broadcasting infrastructure in Iraq.

According to an announcement by Orban, **USAID/DAI** and the **Voice of America** are making the purchases. The sale includes 38 Orban 8218 Stereo Encoder/Generators and 20 Orban Optimod-FM 2200 Audio Processors. ...

Radio Sonora in Indonesia is transitioning to digital with a mixing console from **Wheatstone**. The D-600 digital radio console was to be installed in a studio as part of a turnkey project by Catur Mitra Adhikara, an integrator. ...

Autogram placed four of its Mini-Mix 12B audio consoles with **Advanced Audio/Video Systems** in Montreuil, France. The units are to be installed in mobile ENG/RPU vans under construction. The sale was brokered by Eliana Paz of **Broadcast Richardson** through its Paris office. ...

Telos Systems reported orders for Xstream units to clients including Viacom's **MTV Networks**, **Disney Radio Studios**, **Entravision's** San Jose, Calif., headquarters (17 rack-mounts and four Zephyr Xport codecs), **Wall Street Journal Radio**, **Entercom's** Seattle cluster and Westwood One's **"Tom Leykis Show."** ...

WBHF Morning DJ Sam Irwin poses with Digigram EtherSound equipment.

Logitek Brings Large Console Flexibility to small workspaces

Remora-10 console at Cache Valley Broadcasting, Logan, UT

Possible Remora Configurations

Remora-4: four faders with controls for input assignment, monitors, and console functions

Remora-10 (shown): addition of six-fader module brings additional mixing capability with another stereo LED meter

Remora-16: incorporates Remora-4 base unit with two 6-fader modules

Remora-22: incorporates Remora-4 base unit with three 6-fader modules

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World Radio History

NEWS MAKER

Jack Williams: Not Done Yet?

by Gary Stigall

Jack Williams is most familiar to the radio industry from his days running manufacturer Pacific Research & Engineering. In 2002, three years after PR&E was bought by Harris Corp., Williams left and took a sabbatical in the San Bernardino mountains northeast of Los Angeles.

It's unclear what he'll do next. A brief stint with SAS this year didn't pan out. But Williams doesn't sit still well. This is a man who would come home from the stress of running a company and help raise a family, learn to speak German, sail a boat at sea or fly an airplane.

I was a broadcast applications engineer for PR&E in the 1980s. I recently asked Williams to share some of his memories of three decades in the audio manufacturing business.

In the beginning

Williams and his wife Ellyn met in a business machines class at California State Polytechnic University, Pomona.

"They were showing us how to use 10-key adders and rotary calculators," he recalls. "As a budding engineer, I looked at those things and said, 'These are boat anchors.' I didn't show up for class again for a few weeks."

By that time, he had been exposed to audio/visual equipment with location recording, so those courses seemed too simple as well. After working summers on a missile line, he wasn't interested in the kind of military-industrial work engineering grads were taking in the early 1960s, so he earned a bachelor's degree in business administration.

A job at the University of California, San Diego as audio/video systems engineer led to side recording jobs, which led to tinkering with audio processing at local radio stations.

At rocker KCBQ(AM), he modified the station's Electrodyne limiter to make the station sound as loud and bright as cross-town rival KGB(AM), now KPOP. His experiments with limiters eventually led to manufacturing Multilimiters for AM and FM.

He and Ellyn incorporated Pacific Recorders & Engineering, as it was then known, in October of 1969 to give a name to the company selling "Multisync Motor Drive Amplifiers" from their home. Williams was 27 at the time.

He also assembled audio consoles in their dining room using Quad Eight and Electrodyne modules, and peddled Ampex tape recorders.

The first six PR&E black anodized aluminum consoles went to giant KFI(AM) in Los Angeles in 1975. With slide faders spaced extra wide, they were an oddity to broadcasters accustomed to rotary pots. Active components filled a card cage away from the control surface.

The famous BMX mixer arose from an RKO project to populate news edit booths with simple mixers at WOR(AM) in New York.

"The name BMX stood for 'Broadcast MiXing console,' and it was called the BMX 12 because it was the 12th console design, even though the console would take fourteen inputs," he said.

These consoles had signature beige-colored extruded aluminum modules with Penny & Giles faders and built-in electronics. They looked rugged and held up to disk jockeys. The response at the next NAB convention was so good that the company began making them with more inputs. The boards began showing up in stations' main control rooms.

Disney-powered

PR&E's bread-and-butter product, the BMX II console, came about when the company set out to incorporate universal logic control of external tape machines, telephone interface capabilities and talkback.

It also made the modules "bulletproof" with respect to RF immunity. At KABC(AM) in Los Angeles, microphone lines were installed in the same trough as a 5 kW antenna feed coaxial cable without ill effect. Williams knew they had done something right.

The company got a boost when it won a contract to develop and build for Disney more than 50 2-inch, 24-track magnetic tape bin-loop continuous playback machines. It's remarkable to hear the excruciating details necessary to build these monsters, so readily replaced by today's hard drives and audio interface cards.

Williams says he literally bet the company on the project, spending nights and weekends sweating over the details of reliably guiding tape with the gentle flow of strategically placed air. The progress deadlines proved gut-wrenching at times. Failure loomed. But persistence paid off, and the machines served at Disney park venues into the 1990s.

At that point, the company really took off. It built new turnkey facilities for seemingly all of the major groups of the 1980s: ABC, CBS, NBC, RKO and Greater Media, to name a few. PR&E expanded its plant, fabricating circuit boards, furniture and metal in-house. And it developed a next generation of analog consoles, the ABX, and scaled-down models AMX and BMX III.

Gravy years

People who know Jack Williams admire his drive. He has, in motivation-speak, a propensity for action.

A youthful Jack Williams shows off his products at the NAB convention in 1984.

I once joined him on a trip to New York City, where we stopped at WCBS(FM) to discuss a potential project to replace several aging but well-maintained studios with combo control rooms. There was much hesitation about knocking down a wall to make what Williams considered to be a properly sized room.

Was the wall in question a solid concrete sound barrier, requiring a much more complex and budget-breaking type of construction? Williams asked for a long screwdriver. While a cadre of slack-jawed managers looked on, he promptly and repeatedly jabbed the tool through the wall and probed inside to prove that, in fact, it was *not* solid. He got the project.

A rare person possesses both desire to go after new challenges and follow-through with excruciating attention to detail.

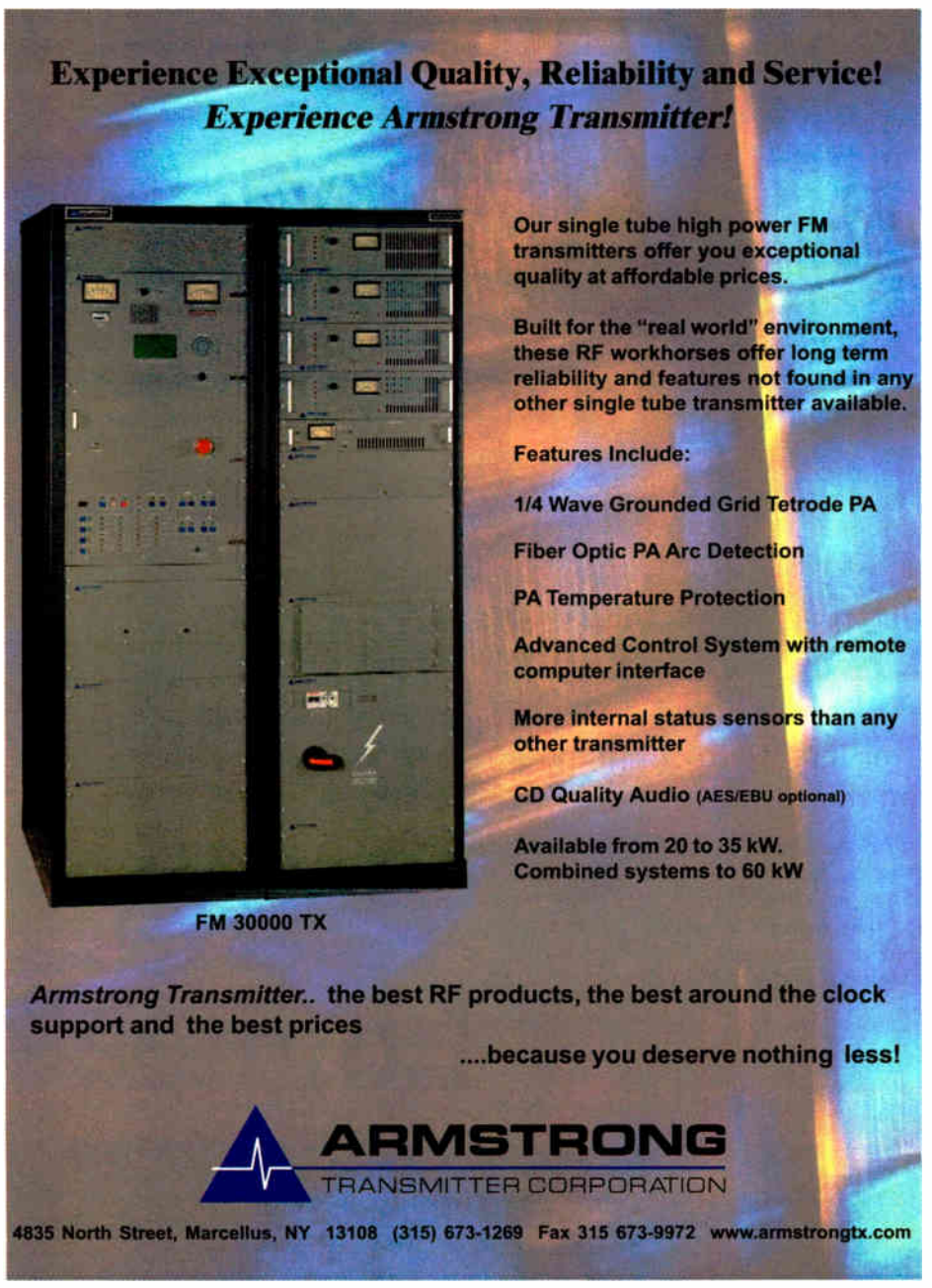
During a Williams visit to check progress on a large facility project at KGO(AM) in San Francisco in 1984, Chief Engineer Eric Steinberg expressed disappointment in the fan noise from an MCI tape deck violating the room's expensive NC-20 rating.

Williams took a listen to the fan, noted that Sony had recently bought the company and removed a cover to reveal that someone, perhaps an overzealous, newly reassigned Sony engineer, had mistakenly documented the fan attached to full voltage on a multitap secondary. Moving the tap to a reduced voltage silenced the fan without overheating the new deck. We looked on in awe.

Williams has always thought "outside the box" and encouraged those around him to do the same. For example, the ubiquitous NAB-standard three-track broadcast tape cart deck of the times, with respect to audio frequency response, noise and stereo phase coherence, put them in a class with toys. Williams decided to reinvent it.

He narrowed the cue track, widened the audio tracks, tightened the guide specifications and made faster speeds

See WILLIAMS, page 19 ▶



World Radio History

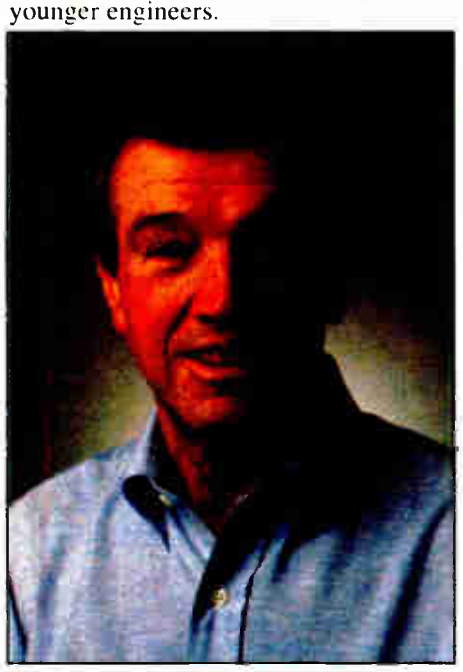
Williams

▶ Continued from page 18

available. Calling it MaxTrax, he offered reconfigured heads available for competitors, but never offered his Tomcat recorders available with NAB standard heads.

The original buzz surrounding the Tomcat was huge. Veteran company saleswoman Sandy Berenics remembers that, at the 1980 NAB convention, when the doors opened the first day, people literally ran to the booth to see the new deck. However, at over $5,000 each, they sold only to the real audiophiles of the industry. Even fewer head kits shipped. Program directors balked at having to rerecord cart libraries in the name of sonic superiority.

Williams continued to work to bring projects in for the company, overseeing large and small radio studio rebuilds and helping to develop lines of more affordable analog audio consoles like the Radio Mixer. To meet the inevitable demand of the marketplace, the company began in the late 1990s to introduce digital consoles designed by their younger engineers.



Jack Williams

What says the man who long defended the optimization of analog over succumbing to the ease of digital distribution?

"A lot of people didn't appreciate the extent of quality of the analog, but the benefits and flexibility justify the route to digital," he says now, adding that features and reliability are, in the end, more important than performance. "You have to grab the technology that satisfies the needs of the customer."

An epilogue in pencil

Williams says without hesitation that he enjoyed his three-year association with Harris after its buyout of PR&E. He says, too, that it was a good time to hand off his share of creative duties to his colleagues Dave Pollard and Ted Staros, who continue to operate a small Harris engineering office in Vista, Calif.

Williams says his grown children Cindy and Jeff advised him to exercise his option to leave Harris and take a breather after 33 hectic years at PR&E. Both children continue to live in southern California and check in often. Jeff Williams, now 33, became a program director for Clear Channel Communications. He handles a circuit of stations from Santa Barbara north to San Luis Obispo.

Williams, now 61, worked briefly this year with Sierra Automated Systems, but that arrangement didn't last. So what next?

"As for the future, I plan to continue our real-estate development activities while exploring opportunities in the fast-growing home entertainment and automation market space."

No doubt he'll have his briefcase, scientific grid pad and a sharp drafting pencil.

Gary Stigall is a broadcast engineer at KFMB(AM-FM-TV-DT) in San Diego. He is an SBE Certified Senior Television Engineer and former chairman of Chapter 36. He has been involved in engineering projects for numerous stations including KABC(AM), KLOS(FM), KGO(AM), KIIS(FM) and WNBC(AM).

WE GIVE YOU R.

Name: Ken R.

Writes About: Production, management and the humorous side of radio

Experience: Five years in radio, a year directing public TV, 23 years running a successful jingle/production recording studio and one book, "The Jingle Book," released in 2002.

Mentor: Journalism teacher Fred Marlo

Learning Experiences: playing keyboards in bad rock bands in the 1960s, getting fired from several radio stations

Quote: "Life is a parade staged for my amusement."

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Radio World — Resource for Business, Programming & Sales — October 22, 2003

Eight Steps To a Better Web Site

Page 26

Let's Talk About 'Sex'

Programming Changes Driven by TV Successes And Radio's Need to Attract Women

by Elizabeth Hamrick

The success of such television programs as "The View" and "Sex in the City" is not going unnoticed by radio programmers seeking ways to reach under-served female listeners.

Women's radio listening levels have been declining sharply in recent years, even as female listeners become an increasingly desirable target. Women now comprise 51 percent of the U.S. population, 47 percent of the workforce and, most significantly, represent $6 trillion in buying power, according to the Bureau of Economic Analysis. Bottom line: Most household buying decisions are made by women.

While it's probably too soon to be considered a full-fledged trend, talk radio, traditionally targeted almost exclusively to men, may be on the verge of reinventing itself as stations' need to connect with women grows. And connect, not sell to, appears to be the key.

The Satellite Sisters — siblings Julie, Liz, Sheila, Monica and Lian Dolan — share their experiences with audiences via ABC Radio Networks on Saturday mornings.

Untapped demo

"Focusing obligatory programming at women tends to backfire," said Todd Fisher, general manager at WFMP(FM) in Minneapolis, a women's talker that doesn't promote itself as such. "If you target women then you miss the mark," he said, making the point that developing strong on-air personalities who connect with women is more important than format.

"Every target is difficult to reach," said Walter Sabo, president of Sabo Media. "You have to hit with the right talent and topics. But you can target talk for any demo you want. Talk is better business than music, with a better advertiser response."

Sabo, who helped CFUN(AM) in Vancouver launch a women's talk format, said radio stations are leaving money on the table with so little programming directed to women's interests.

Not only are U.S. programmers missing the boat on this issue, "but I'm surprised they haven't drowned in the water," he said.

Television networks spend millions on development, Sabo noted, with a budget earmarked for "let's see." Radio has nothing comparable. Once somebody is willing to try something new in radio, Sabo said, more eventually follow.

"It's an obvious opportunity," Sabo said. "Talk targeted to women is the financial backbone of daytime television. Or look at magazines with topics of interest to young women ... Glamour, Self, Redbook."

Sabo described CFUN's format like this: "If two best friends, 30 years old, had lunch, what would they talk about?" He cited recent discussion topics such as staying friends with an ex, telling a spouse about a tattoo and botched marriage proposals. If the two best friends wouldn't, "then we wouldn't either."

"Girlfriends sitting around talking" is also how Steve Allan, program director for Washington's WASH(FM), describes "Girl Talk," a Sunday evening program that has been airing since last year on the hot AC station. The vision of co-hosts Debra Leigh and Erica Hilary, the show has some guests, some callers, "but mostly just talking," Allan said.

"There's not a lot (of women's talk) being done," Allan said, so it's hard for him to judge the long-term potential of "Girl Talk." Winter ratings were encouraging, though, and he's committed to the show for the foreseeable future.

In syndication, "Chick Chat," promoted as "Sex in the City meets Cosmopolitan," debuted in November 2002 via Syndicated Solutions Inc. One of the three "chicks," Heidi Hanzel, said people "fall off their stools trying to listen in" to the conversations she and her friends have in bars. "We take that conversation to radio," she said.

Go all the way

While some stations are experimenting with a few hours of women's programming here and there, most remain reluctant to design an entire format around women's interests.

One exception was KCAF(AM), Dallas, slated to premier a female-oriented talk format last fall and heavily pre-promoted in the local media. Unfortunately, financial woes led to its demise just three days after it hit the airwaves.

Minneapolis' version, on the air for the last year, is still in the awareness-building stage but holding its own. "Audience reaction via e-mails, talent appearances and very light strategic

See PROGRAMMING, page 23 ▶

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NEWS MAKER

Clear Channel Dials Up Profitability

by Steve Sullivan

Has Clear Channel thrown in the towel when it comes to dominating local market revenues? Not exactly.

Yes, the radio group has suffered a succession of quarters in which revenues lagged behind the industry as a whole. And yes, it has dumped out of some big-ticket sports broadcasting arrangements and non-traditional revenue events.

But given up? No way. What it has done is as basic as Business 101. It is simply getting out of many situations in which the return on investment was not as high as it would prefer.

Big changes

Clear Channel Radio has undergone tectonic changes in the past year. The division has reorganized twice, most recently in August when it realigned its radio regions and added three new senior vice presidents.

A year earlier, the group had undergone a radical makeover, which included the replacement of CEO Randy Michaels with then-COO John Hogan. It was that change in command that inaugurated movement in the group's operating philosophy and focus.

Hogan, a 20-plus-year veteran of radio sales, came to Clear Channel in the 1999 Jacor Communications acquisition. In August 2001, he was promoted from senior vice president to chief operating officer and soon began beefing up the radio sales group. Within two months of his appointment as COO, he brought on 500 new sales executives.

Things aren't exactly bleak. In 2002, the radio group accounted for $3.5 billion in gross billings, taking the industry's biggest piece of the money pie. But Hogan is not singularly focused on maintaining its leading position in the race for revenues. He wants his market managers to evaluate their revenue opportunities, then select those that provide the highest return on the investment.

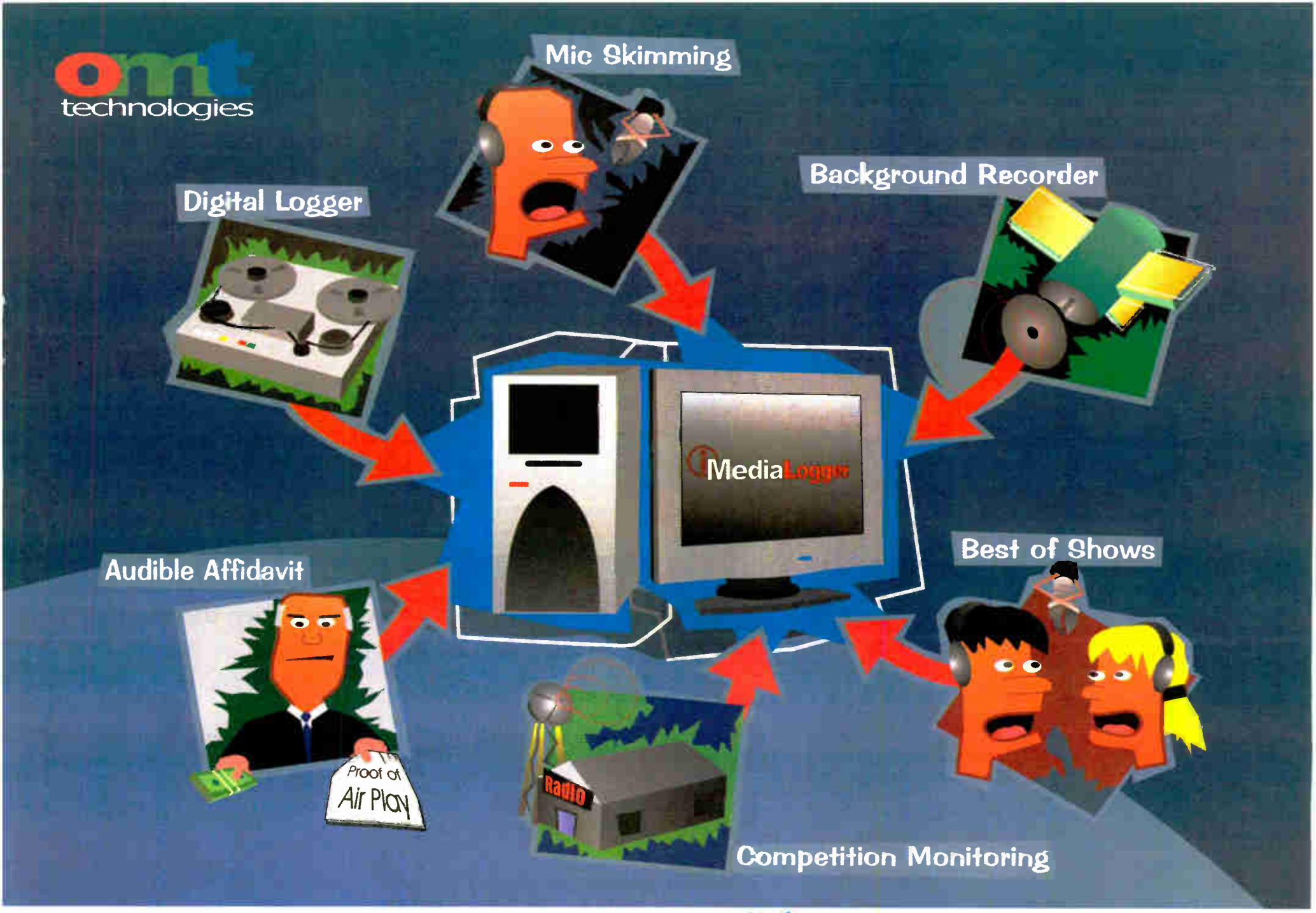
Simply put, he wants more profitability.

Hogan says radio people characteristically focus on market share when there's a broader picture to consider.

"We think market share is important, but it's not nearly as important to us and to our shareholders as profitability. We pay very close attention to all the

See CLEAR CHANNEL, page 22 ▶

World Radio History



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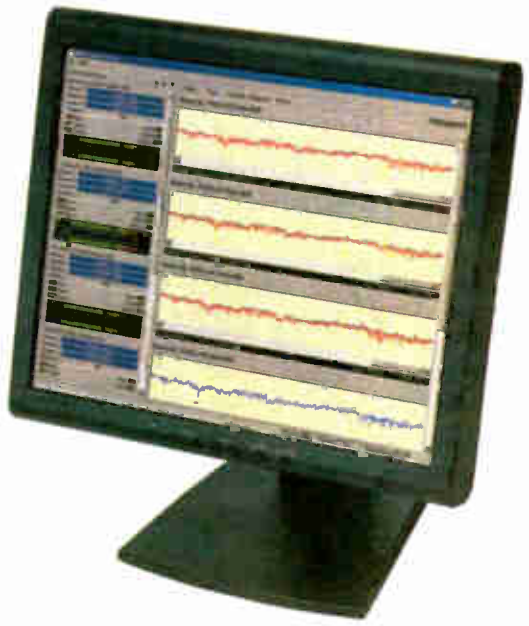

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World Radio History

Clear Channel

▶ Continued from page 20

expenses associated with generating new revenues. It doesn't help us to increase our market share but to simply maintain or, even worse, diminish the profitability of the company.

"What we've done is made conscious decisions to move away from some revenue streams that were less profitable for us and replace them with more profitable revenue streams."

Hogan offers station managers a powerful incentive to find and develop these new profitable revenue streams: the managers' compensation is pegged to profitability, not ratings.

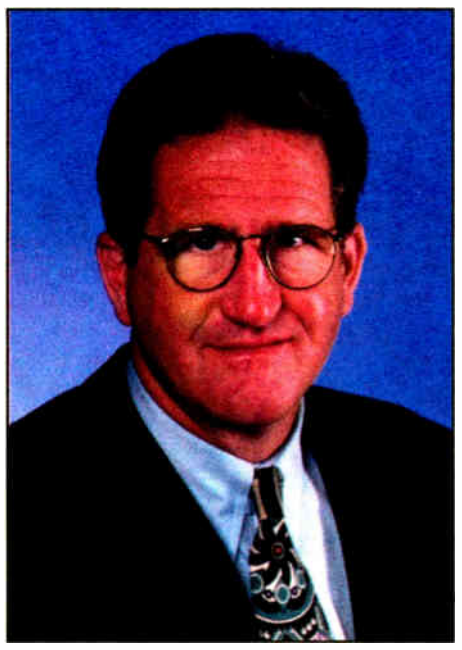
"Ratings are incredibly important to us; but they're important to us in terms of being a means for achieving greater profit. Our managers understand that the end game for them is to do the very best radio they can do for their local markets, to be as connected as they can to their local audiences so that we have the greatest number of listeners.

"Then they have to convert those listeners into opportunities for their local advertisers, and to get as many advertisers as possible accessing those local listeners, and do it in as efficient a way possible. That will lead to increased profits and we reward them very handsomely for that."

Not 'Cheap Channel'

According to Hogan, one of the misperceptions is that the company won't spend a dollar to earn $10, giving rise to the unflattering moniker "Cheap Channel."

"I've been with the company almost five years and I can tell you nothing is further from the truth. We will spend money to make money," he said. "There is absolutely no hesitation to spend a dollar, or a hundred dollars, or a hundred thousand dollars if there is a reasonable and attractive return on the investment."



John Hogan

While Hogan says Clear Channel won't hesitate to spend money where merited, he says that it also will not balk at cutting out long-standing practices that don't deliver enough return.

Two areas that have come under particular scrutiny are sports broadcasts rights and non-traditional revenue events. The highest-profile example of the former was a decision earlier this year not to continue radio broadcasts of Los Angeles Dodgers baseball on KXTA(AM).

"We carried the Dodgers on our stations in Los Angeles for years and paid a multimillion-dollar rights fee for that," Hogan said.

"But at the end of the day, we determined that the amount of profit we could get selling Dodgers was dwarfed by what we could get by simply selling that time in other ways to different people. So we disconnected from the Dodgers. Our revenue share will be down, but our profitability will be up."

Clear Channel Radio has done the same sort of analysis with NTR.

In 2002, the company did an event in Atlanta where it generated $300,000 in revenue, but also generated $300,000 in expenses. That event is just one of literally hundreds of NTR events across the country that Clear Channel did last year that are not being done this year.

Hogan says radio people characteristically focus on market share when there's a broader picture to consider.

"Our managers understand that if you have to spend $100 to make $100 in revenue, that's not a great business formula," Hogan said. "So we're asking them to make sure that they're focusing on the most profitable revenue streams, not just on market share."

Immediate impact

The approach appears to have had an immediate impact on Clear Channel's financials — and, at a quick glance, that impact would appear to be negative.

William Blair & Company, an investment house that covers Clear Channel (and does business with the company as well), reports that the rest of the industry outperformed Clear Channel Radio in revenue generation for the past three quarters.

But Blair analyst Alissa Goldwasser attributes a large part of the performance issue to Clear Channel's decision to dump out of revenue-generating activities that were not yielding the desired profit margins.

"I think that is absolutely a contributor: the idea that they're evaluating the profitability of all their revenue streams," she said. "When it doesn't make sense from a bottom-line perspective, they're willing to sacrifice the revenue.

"It's my impression that they're walking like they're talking on this issue," Goldwasser said. "They're being very firm with their people in the field making sure that expenses are being kept in control. As long as they don't cut back on revenue-producing initiatives, where the investment precedes the benefit in the top line, I think it's a great policy. I think they have really optimized their cost structure."

Although Goldwasser, speaking in September, predicted that the advertising environment would remain bleak through the rest of the year, she sees Clear Channel's radio division keeping pace with the rest of the industry on revenue growth.

"I'm optimistic that Clear Channel is in the very early innings of realizing the benefits that they uniquely can take advantage of given their breadth and presence in U.S. radio."

Steve Sullivan is executive news editor for multimedia at The Baltimore Sun and co-founder of the Advanced Interactive Media Group LLC.

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World Radio History

Programming

▶ Continued from page 20

research indicates we're growing a solid, loyal base of female listeners," said GM Fisher, who saw an opportunity to "structure his station differently than anything else in today's talk radio." The format is a mix of syndicated shows, such as Suze Orman and Dr. Laura, and local hosts.

"It's funny to see how talk radio has been defined," Fisher said. "It's seen as a totally conservative medium. Not to say that we're developing 'liberal' radio here, but there's more than one type of talk station."

Women's talk is not an entirely new concept, certainly. Sabo pointed out that from 1925 to 1985, the most-listened-to station in New York, WOR(AM), was talk targeted to women. Eighty percent of the hosts, and more than two-thirds of the audience, were women, he said.

More recently, the Satellite Sisters, a nationally syndicated radio show on which five geographically spread out siblings chat on Saturday mornings, has aired on public radio since the mid-1990s. The "Sisters" joined the ABC Radio Network in February.

And nationally syndicated shows targeted primarily to women that feature a mix of talk and music dedications, such as Delilah and Dave Wingert ("Dave 'til Dawn"), are popular. Mike Bettelli, programmer for both of those Jones Radio Networks shows, said most of his company's efforts are focused on AC and country formats, which have strong female appeal to start with.

"Getting inside the head" of the target female listener has long been important because women do make so many consumer decisions, Bettelli said.

Plus, women tend to be more faithful to a program, Bettelli said. "If they make a connection with the show, then they become loyal listeners."

Allan seconds that opinion. "Women are harder to convince to be loyal," he said. "But once convinced, they stay loyal longer."

Listen to mother

The biggest challenge may be creating programming that meets the needs of adult women but remains family-friendly.

A 2001 Arbitron study, "What Women Want," showed that women desire radio they can listen to with their children. In phone interviews with women 18 to 54, 92 percent strongly agreed that family is the most important thing to them and 63 percent strongly agreed they tune radio out because they don't want kids to hear what's being broadcast.

Hanzel said "Chick Chat" is definitely a "show you listen to without your child present." And there is a scale of how people raise their children and what they're willing to expose them to, Sabo said.

Regardless of how the balance between kid-safe and provocative is struck, getting women to talk — not just listen to it — is the apparent key to any program's success. Arbitron found that women listeners are more motivated to tune in by hearing about a station from a friend than by any other media, including television, direct mail and billboards.

Elizabeth Hamrick, a former radio announcer, is a free-lance writer and marketing consultant based in South Carolina. Reach her via e-mail to emhamrick@earthlink.net.

STATION SERVICES

TM Century Has PraiseDisc Music Service

TM Century this summer launched PraiseDisc, a free music service supported by labels and artists. It began shipping to 1,800 stations that program any type of Christian music.

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For information call the company in Texas at (972) 406.6800 *or visit* www.tmcentury.com.

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Ryan Olsen, like all BSW Sales Associates, has an extensive and diverse background in pro audio. He started his career working in radio production and most recently focused on streaming media production.

He holds degrees in Audio Engineering and Audio Production Aesthetics, so he knows his stuff. And he's worked on both sides of the mic, so he understands the real-world needs of broadcasters. Let Ryan put his expertise to work to help you find the perfect audio solution for any situation.

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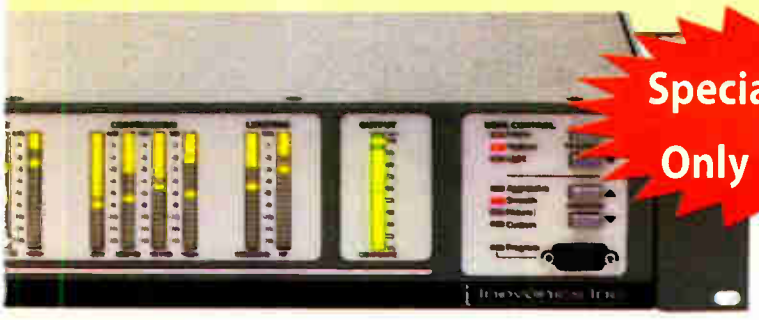

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DT190 List 389.00 **299.00**

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Radio Industry Sites That Work

by Joe Dysart

Now that the Web as revolutionary business communication tool has become a fait accompli, a number of businesses in the radio industry have discovered ways to elevate the medium to world-class heights, and create glistening icons of e-commerce.

Seasoned Web designers say that managers who achieve this status realize that a Web site is much more than a "flag of the Net" or a "billboard in cyberspace." Instead, the best Web sites create inviting, easy-to-use environments: an interactive tool where prospective and existing clients can learn about your business, and actually begin to transact business, at least on a limited scale.

What a Web site is *not* is a technological homage to yourself, your company or the Web designer who helped you put the site together. Technological homages, or showy, forever-to-download sites that "look so cool" but are little more than severe impediments to e-commerce, are still too common on the Web. The Webscape is littered with such sites. Don't add yours to the heap.

"Usability rules the Web," says Jakob Nielson, a principal in the Nielsen Norman Group (*www.nngroup.com*), a Web design consultancy. "The Web is the ultimate customer-empowering environment. He or she who clicks the mouse gets to decide everything. It is so easy to go elsewhere; all the competitors in the world are but a mouse-click away."

In designing your own site, you'll need to start with a good Web site authoring tool that will enable you to design a basic site, which subsequently can be enhanced with supplementary specialty design programs. An all-around decent authoring tool that gets good reviews in the PC press is Microsoft Front Page ($138) (*www.microsoft.com*).

Another that consistently gets rave reviews is DreamWeaver by Macromedia ($326) (*www.macromedia.com*). Many users say the DreamWeaver authoring program has a steeper learning curve than FrontPage. But they believe the extra effort is worth it. The reason: DreamWeaver is seen by its fan as a much more versatile Web authoring tool.

Don't make me think

Once you've become comfortable with your Web authoring program, or have found a Web designer who has taken on your project, Web designers recommend that every commercial site include these key features:

Instant Communication of Purpose: People serious about doing business on the Web want their Web pages served up fast and clear. That means instantly communicating what you're about and what you can do for the visitors. And it means forgetting about showy splash page introductions or elaborate animated introductions that take forever to download.

"People often ask me what's the most important thing I should do to make sure my Web site is easy to use," says Steve Krug, author of "Don't Make Me Think: A Common-Sense Approach to Web Usability," published by New Riders (*www.newriders.com*). "It's 'don't make me think.' As far a humanly possible, when I look at a Web page it should be self-evident. Obvious. Self-explanatory."

WCBS(FM) (*www.wcbsfm.com*) in New York instantly communicates its target market on its home page: Motown, Soul and Great Rock & Roll.

WZFS makes it a snap to get around.

Eight Steps to a Better Web Site

- Instant Communication of Purpose
- Arresting Use of Graphics and Color
- Effortless Navigability
- Innovative Use of Visitor Communication Interfaces
- Elegant Automation of Business Transactions
- Enlightened Use of Multimedia
- Quicksilver Downloadability
- Heads-Up Promotion

Arresting Use of Graphics and Color: Fortunately, you still can make a significant impression by using graphics and color deftly. Authoring programs like Microsoft Front Page, for example, come with a number of themed corporate page sets for those who would rather leave color coordination to others.

If you're more courageous and plan on doing your own coloring, you'll want to pick colors that make sense and don't offend anyone. Companies designing sites for an international audience especially need to remain cognizant that colors, symbols and other graphic nuances have different meanings in different cultures, says Paul Fox, vice president of engineering at Excel Translations (*www.xltrans.com*), a businesses that specializes in Web site localization.

Once you've leapt the cultural sensitivity hurdles, you may want to bring in an industrial-strength graphics program for your images, such as Adobe Photoshop ($468) (*www.adobe.com*). The program may be a little pricey for some budgets, but it is considered the industry standard by Web graphics professionals. A less costly alternative is Ulead's PhotoImpact ($90) (*www.ulead.com*). PhotoImpact has fewer features, but the program still regularly garners rave reviews in the PC press as well.

Effortless Navigability: Once you've established what your site's about, take great pains to ensure that getting around the site is a snap, designers say. That means creating an intuitive navigation bar that enables visitors to make quick jumps to key interest areas with a single click. If you have a fairly extensive site, you'll also want to use drop-down menus or similar tools that enable visitors to "drill down" to highly specific categories of interest in a flash.

WTMX(FM) (*www.wtmx.com*), based in Skokie, Ill., sports a super navbar on its site, which offers an extremely condensed set of drop-down menus that offer quick clicks to a number of interest categories and subcategories. The site's tag line says it all: We know you're in a hurry, so we got everything together for you. WZFS(FM) (*www.1067thefish.com*) in Des Plaines, Ill., also makes it easy to get around on its site.

Make life easy

Innovative Use of Visitor Communication Interfaces: As America Online has proved, finding ways to enable people to communicate easily on the Web can get you far in life. Once considered an upstart, AOL zoomed to No. 1 among Internet Service Providers largely because of its easy-to-use chatrooms.

Many commercial Web sites provide basic communication interactivity by posting e-mail addresses of key personnel and/or offering mailing lists. You can experiment with mailing list technology for free at online services like Yahoo! Groups (*http://groups.yahoo.com*). MSN Groups (*http://groups.msn.com*) AOL Groups (*http://groups.aol.com*) and Topica (*www.topica.com*).

Meanwhile, other companies are taking the concept of interactive communication to a higher level, featuring chatrooms where visitors can stop by to ask questions about purchases or talk shop. Many of these chatrooms are hosted by remote, application service providers like LivePerson.com, InstantService.com, Live2Support.com and MayWeHelp.com. Costs for these services range $9-$99/month, depending on the features you'd like.

KHHT(FM) (*www.hot923.com*) in Los Angeles offers a number of ways visitors can communicate with the station, including live text chat with radio staff, a studio Webcam, song requests by e-mail, e-mail feedback and a "listen live" button, enabling visitors to hear the song currently playing over the Web.

Elegant Automation of Business Transactions: Offering ways to actually get business done on the Web is one of the more rare applications found on Web site, but it doesn't have to be that way.

See WEB SITES, page 28 ▶

World Radio History

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World Radio History

Web Sites

▶ Continued from page 26

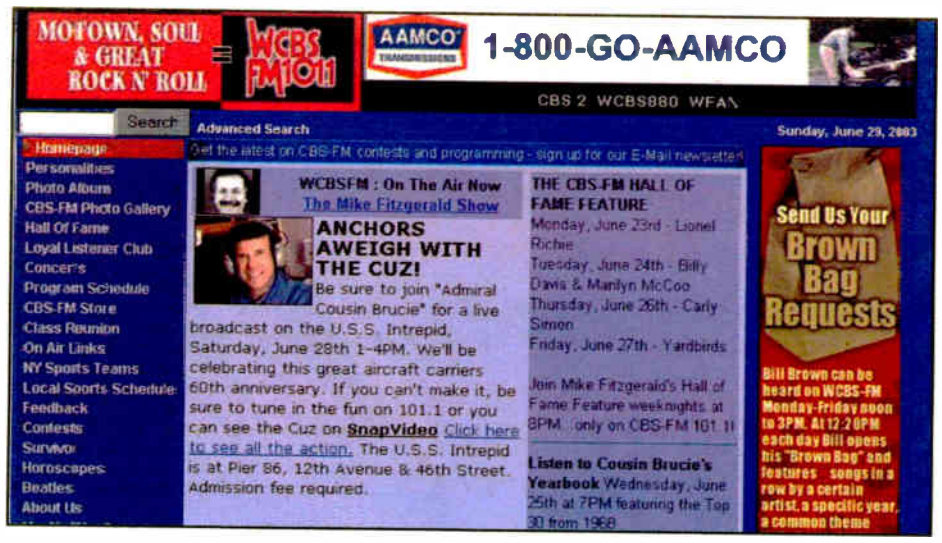
Scores of software companies and application service providers have all sorts of solutions for engaging in e-commerce, accepting fully completed job applications, getting a "quick quote" back to a prospective customer and posting various forms that speed data directly from the Web to company data bases for quick manipulation.

Enlightened Use of Multimedia: Now that the gee-whiz novelty of applications like audio, video and 3D over the Web has run its course, Web pioneers are finding ways to leverage these advanced technologies with finesse.

Audio/Video apps such as Real Networks' Helix Producer ($399) (*www.realnetworks*) and Microsoft Windows Media (free for Windows users) (*www.microsoft.com/windows/windowsmedia*) are being used by corporate execs to broadcast quarterly meetings, new product introductions and the like.

And 3D software like Apple's Quicktime VR ($338) (*www.apple.com/quicktime*) and hardware/software solutions from IPIX (starting at $595) (*www.ipix.com*) are being used to create product and service-related "walk-throughs," "fly-throughs" and similar, virtual reality experience that help close the deal.

WPOW(FM) (*www.power96.com*) in Miami uses a great deal of multimedia animation smartly: users can get to sense movement and excitement in small doses, which translates into faster download times for the site. KSMU(FM) (*www.ksmu.org*), Southwest Missouri State University's radio station, offers audio downloads of national, state and local news in the Windows Media format.



WCBS establishes its target market — Motown, Soul and Great Rock and Roll — in a flash.

Less is more

Quicksilver Downloadability: While too many Web sites seem to feature every technological bell and whistle known to man (i.e. "unenlightened" use of multimedia), savvier Web designers know that stripping the bloat out of Web multimedia results in quicksilver downloads and visitors who don't click away in frustration. Both Adobe's Photoshop and Ulead's PhotoImpact have "image optimizer" tools that help reduce a graphic's size to its bare essentials.

Radio Web sites succeed for specific reasons. Here's a checklist.

WSTR(FM) (*www.star94.com*) in Smyrna, Ga., thoughtfully provides two versions of its site: one for high-speed connections, another for people cruising in on dial-up, slower-speed modems.

Some companies offer "text only" versions of their Web sites for visitors on extremely low-power modems, including visitors outside U.S. borders.

You'll also want to be sure that you've hooked up with a high-powered site host. "Your Web-hosting company should have at least a T1 connection," says Peter Kent, author of "Internet Marketing and Promotions," published by Top Floor (*http://topfloor.com*), "You don't want a Web-hosting company with, for instance, an ISDN connection; that's simply too slow."

Heads-Up Promotion: No matter how good your site design, you'll still need to prod and cajole folks to stop back with various Web site promotion techniques. WPLJ(FM) (*www.wpljfm.com*) in New York encourages repeat visits by offering an ongoing selection of contests and sweepstakes that visitors can enter.

Of course, once you're engaged in the creative process of Web design and maintenance, you'll most likely come up with a few ideas of your own about what works, and what doesn't — which is just fine. One of the most inspiring qualities of the Web is its never-ending evolution and its ability to make doing business easier, faster and much more profitable.

Joe Dysart is an Internet speaker and business consultant based in Thousand Oaks, Calif. Reach him via e-mail to joe@joedysart.com.

World Radio History

Specs Howard: Start Here, Get There

by Ken R.

This is one in a series of occasional articles about broadcasting schools and educational programs.

Specs Howard was a mild-mannered yet slightly wacky DJ who with his partner, Harry Martin, graced the airwaves of Cleveland and Detroit in the 1960s.

Howard now is chairman of the board of a broadcast school that bears his name. His son, Jon Liebman, is CEO. Specs Howard School of Broadcast Arts near Detroit has been in existence for 33 years and has graduated approximately 12,000 radio and television students. It promotes itself as "the only school in Michigan exclusively dedicated to providing students with the practical training necessary for breaking into the business of radio and television."

Dick Kernen, vice president of industry relations for the school and a recent inductee into the Michigan Broadcasting Hall of Fame, teaches classes between other assignments.

Specs Howard interviews Bob Hope, circa 1954. Hope was a minority owner of the Cleveland Indians.

"Typically we will graduate about 450 people each year," Kernen said. "This includes radio and TV classes."

From the early days when Specs Howard himself taught several students in a small classroom, the school decided to be a "hands on" rather than a mail-order operation. Management also decided to maintain one location near Detroit rather than franchise the name to other cities.

"When you begin to franchise, you give up control," Kernen said. "Unless you're McDonalds, it's tough to keep an eye on standards."

Keeping pace

Since the school was founded, turntables and razor blades have given way to MiniDisc players in 20 modern radio studios. Part of a current $1.5 million upgrade will convert them to touch screen. There are several ENCO Systems computer systems in place; and the school has purchased ten Avid non-linear edit suites for TV courses.

There are about 16 full-time faculty plus four executives with separate staffs for the TV and radio training programs.

The school offers a full-time program; because about 70 percent of the students have jobs, three shifts are offered. Day students attend from 8:30 to 1 p.m.; afternoon students take classes between 1:15 and 5:45 and night courses are held between 6 and 10:30 p.m.

"The only part-time people we have are lab assistants," said Kernen. "These are current students, who are responsible and mature."

Specs Howard School of Broadcast Arts eschews the use of "celebrity" teachers, even though big names would draw favorable attention.

"The problem with that idea is as long as they are part-time here, we only would get a part-time priority from them," Kernen said. "When our students are paying about $10,000 for an eight- to 12-month course of study, you can't just stick up a sign saying the celebrity isn't going to be there on a given day."

The school can help arrange housing for visiting enrollees and has agreements with nearby colleges and universities with available dorm space. Another alternative offered is helping the students find a low cost apartment.

"And speaking of students, with the advent of the Internet, they now come to us from as far away as Norway, Austria, Belize and Canada," he said.

Placement looks rosy

Kernen said about 2,000 people working in southeast Michigan alone have graduated from the school, and grads have ended up in a variety of broadcast careers around the world. Alumni are working at XM Satellite, the ABC Radio Networks, Westwood One and in almost every state, in on-air and off-air capacities.

Most people have the impression that this is a "DJ school," but according to Kernen, it's much more.

"We are very big into promotion and marketing training as career tracks," he said. "We don't teach sales, because not many young people want to go into this area. Most think selling is something you do until you get a good job."

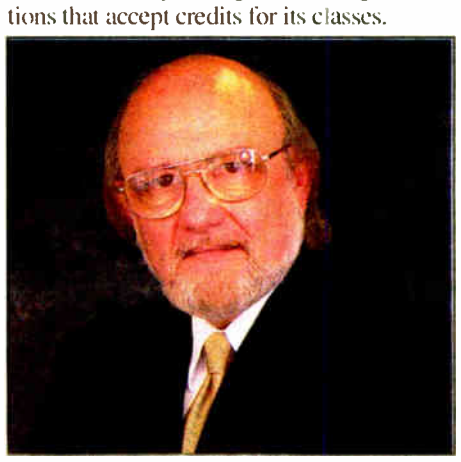
Kernen said great sales people are self-motivated and enjoy going to work as much as on-air personalities and newscasters.

"So it's intriguing to look back over the last 32 years and see how many of our people are now in sales," he said. "We have five sales managers here in Detroit alone, but they had to realize that this is what they wanted on their own."

The school also doesn't teach engineering, but many grads end up in that area as well.

Specs Howard has a placement rate of 84.2 percent, excluding students who continue their education, join the military, leave no forwarding address for follow-up or just enter other businesses.

The school has agreements with several two- and four-year higher learning institutions that accept credits for its classes.



The schools Dick Kernen is a recent inductee into the Michigan Broadcasting Hall of Fame.

"In fact," said Kernen, "we have an arrangement with Rochester College which allows the students to finish their college degree without leaving the building here."

One of the earliest success stories is Karen Dalessandro, one of the morning hosts at WMIL(FM) in Milwaukee. She recently was voted personality of the year by the Country Music Association and has been at her current job since 1998.

"I went into Specs Howard right out of high school in 1980 and was actually placed before I completely finished the course," she said. "They sent me to a country station in nearby Ypsilanti, Michigan, called WSDS(AM), but I was more of a rock and roller, so I soon got a job in Lansing."

Dalessandro said Dick Kernen was teaching classes even when she was in the school.

"At that time there were very few females in broadcasting, but gender was never an issue at that place. They just wanted to give us everything they could," she said. "Dick (Kernen) is a very special person to me. He's been there for me all these years and still gives me advice."

Kevin Scollin serves as placement director at Specs Howard School of Broadcast Arts, but he remains one of the most in-demand freelance announcers in Detroit.

"I do a lot of furniture commercials and national Chevy spots," he said. "I've been telling people for years about this school, so it's funny that I've ended up working here now."

Dick Kernen, along with Mike Kronforst of Brown Institute in Minneapolis, recently received the Conclave Learning Conference Rockwell Award. This honor is given to those who have contributed to the radio and record industries through inspiration, mentoring and achievement.

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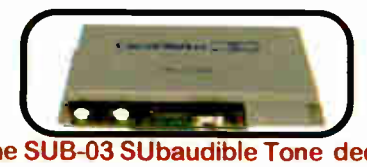

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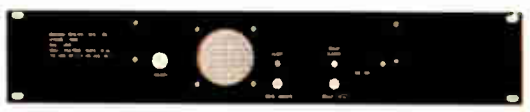

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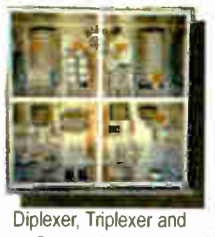

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World Radio History

USER REPORT

Sun Sounds Upgrades to NexGen

Automation Software From Prophet Systems Eases Arizona Reading Service Into the Digital Age

by Shari Boulanger
Marketing and Public Relations
and Dave Noble
Development Director
Sun Sounds of Arizona

PHOENIX Radio has long been a medium of the mind. With radio we are enlightened, educated and entertained. It allowed Orson Welles and UFOs to take over the planet, and kept listeners informed as an expectant nation huddled around radio consoles to hear fireside chats from the White House. However, the images created in the minds of listeners far exceeded Hollywood's ability to create them with special effects. Radio gave us the words, but let our intellect and imagination create the rest.

Today, radio is portable, making information and entertainment readily available — for some. The mission of Sun Sounds of Arizona, a reading service that has provided a bridge between print and radio for nearly 25 years, is to ensure that radio programming reaches Arizona's blind or visually impaired listeners. Volunteers from the community read printed publications for an appreciative audience of more than 32,000 FM-SCA listeners throughout the state. With the advent of the digital age, our work has become more efficient.

However, there were challenges to overcome in going digital and adopting AudioWizard from **Prophet Systems**, a programming control center that stores and processes audio data for commercial radio stations. Sun Sounds employs blind or visually impaired people as board operators, and computers and software cannot always accommodate their disabilities.

The technical support staff at Prophet Systems eagerly accepted the challenge, along with Sun Sounds' technical operations director, Margie Zebell. Sun Sounds engineers and management personnel joined forces with Prophet Systems to create adaptations in Prophet's software that would accommodate the long format of reading service programming (29- and 58-minute shows), and establish a training program for more than 400 volunteers.

The reading service's volunteer on-air talent generally had little or no computer experience. One Sun Sounds board operator, Tony Keras, relied on screen-reading software to operate the automation computer. Screen reading is the utilization of synthesized speech to guide a visually impaired computer user through textual information on the screen.

We recently installed NexGen Digital Broadcasting, a Windows-based software program to replace the menus-driven AudioWizard.

"Now we can transfer data among our satellite stations and convert audio files, things we could not do before NexGen."

Jeanne Ost, part of the Sun Sounds operations staff, transfers data with the NexGen automation system.

Sun engineers worked with Prophet Systems to create software adaptations that would accommodate the reading service programming format.

Zebell said. Chip Jellison, Prophet's director of development, worked with Zebell over the next six months to adapt the new system to coordinate with the screen-reader software. Now, blind or visually impaired board operators are as able to use the system as their co-workers who use the standard on-screen interface.

"The technical support team at Prophet is able to go online while we are on the phone, and together we make the necessary adjustments or upgrades," said Zebell, who enjoyed the collaboration that was required to optimize the NexGen capability with the special on-air requirements and needs of Sun Sounds.

"We here at Sun have all the bells and whistles, and the people to show us how to use them. What more could a broadcaster ask for?"

Sun Sounds of Arizona is located in several state-of-the-art facilities with its main channel public broadcaster, KJZZ(FM).

"Our new facility is completely digital and making the best use of the volunteer talent, the new equipment and the NexGen software," Zebell said. "We have a wonderful community partnership with Rio Salado Community College and KJZZ, which invested in the community, and with Prophet Systems, which 'invested' their know-how and technology at Sun Sounds."

Sun Sounds of Arizona bridged Prophet's software innovations with our public service and public radio environment, and made it all work together for the public good.

For more information, including pricing, contact Prophet Systems Innovations in Nebraska at (877) 774-1010 or visit www.prophetsys.com.

World Radio History

USER REPORT

Radio One Embraces iMediaTouch

by Karl Goehring
Chief Engineer
Radio One Baltimore

BALTIMORE I did four years of research on digital storage systems before finally purchasing our iMediaTouch System from **OMT Technologies** in 1997.

It's not that I chose to research for that long, but rather every year at budget time, CEO Alfred Liggins would inform me, "No purchasing this year!" I'm glad he made me do that research, for most of the digital storage systems at which I looked during those years no longer exist.

Since the initial installation six years ago, we have gone through three generations of the iMediaTouch System, which keeps getting better. The first system, used in 1997, started out with 166 MHz Pentium studio computers running DOS and dual NT Raid array 200 MHz Pentium servers. This was the group's first digital delivery system and, to my delight, the transition from cart and CD to digital storage went smoothly.

Prior to the station's transition to the iMediaTouch System, program directors and jocks explained to me their horror stories and past experiences with other systems. Needless to say, we were quite nervous, yet excited to see what iMediaTouch could do.

Smooth operator

Fortunately, with all the training sessions and hard work, our jocks and program directors slipped comfortably into using iMediaTouch.

The fluid transition was due to OMT's training and support personnel, who worked tirelessly, even on weekends. They joined the jocks during their first shifts in each of our four stations, helping with any questions or problems.

Even those who were most afraid of the transition from CD and cart to iMediaTouch told me how they loved the functionality and easy learning curve. Our jocks were soon on their own. And they've never looked back.

The author poses in front of Radio One Baltimore's iMediaTouch system.

In 1999, we upgraded the air studios to OMT's OpLOG 2000 NT, which added a host of features we had requested for the air studios. OMT again impressed us.

The OMT support personnel came on site and aided us in disassembling every computer, cleaning every unit, loading the new software and testing it before going to air. The greatest part of the process was that we upgraded only the software and were able to continue using the same studio computers.

To accomplish the upgrade, we simply moved each station to a production studio while upgrading the air studio. Then we brought all the jocks into the air studio for training before putting that studio back on the air. The jocks and program directors loved the new features, particularly because they got the ones for which they had asked.

In 2002, our servers and studio computers had to be replaced after five years of use. We decided to upgrade our iMediaTouch System and take advantage of the new features offered with the newest versions. Unfortunately, the new software was not compatible with the old. To solve this problem, we paralleled both systems and changed stations over one at a time. During this process, we trained people in the production facilities.

This time, we added the capability to run any station's complete air studio from production by including showlogs and a touchscreen, which give the on-air personalities more control over their shows. The new production software proved to be more versatile than the older version, and simple to use.

As a test I brought one of our secretaries with no production skills to the production studio, and had her flip five "bad" words in a rap song. She had the song edited in a total of 10 minutes, including the training time, and now wants to change jobs.

The production crew and program directors love the new CD-ripping capabilities of the production software. It makes song loading much faster and simpler. Personally, I've loaded many programs on my desktop, and with iMediaTouch it only takes about six minutes to rip, edit and label a 30-minute show.

Our third upgrade was the smartest thing we've done to make our stations' final product sound great and efficiently facilitate operations. Plus, the tools we have keep the staff pleased.

There are two things about the iMediaTouch software suite that I would change if I could, and they are both in the production software.

Firstly, when the user is editing a cut, there are only two levels of zoom to view the cut. It would help to have different levels of zoom.

Secondly, the user can only reset the level of an entire cut, instead of a highlighted area. It would be nicer for jocks to be able to select areas to reset, rather than having to work with the whole cut.

Our experience with iMediaTouch software, staff, support and service was beyond our expectations. With our many formats, personnel and day-to-day operations, iMediaTouch has repeatedly performed for us. We anticipate the installation of the fourth-generation software, to be offered by OMT in the near future.

For more information, including pricing, contact OMT in Canada at (204) 786-3994 or visit www.omt.net.

TECH UPDATE

BSI's Simian System Evolves

Simian digital audio software from **Broadcast Software International** runs in automation mode, unattended for weeks at a time, or as a live-assist system, during which the operator can make changes to the program log while Simian is playing. Operation is not interrupted when the user edits the log for a different time of day.

It is equipped with audio file labeling technology, which enables the user to insert information into the audio file. Simian uses Microsoft standard audio files (compressed or non-compressed), MP2, MP3 files (via codec) and TM Century files. Other programs can run on a PC running Simian.

The software has expanded features that include Dynamic Time Compression, which allows broadcasters to condense their broadcast without any pitch-shifting. This enables them to meet top-of-the-hour deadlines. BSI's Smart Carts ensure that out-of-date spots will not be played, and artists can be set to a specific rotation even within randomized carts. Simian can check logs by date, so that broadcasters can check their schedule days in advance.

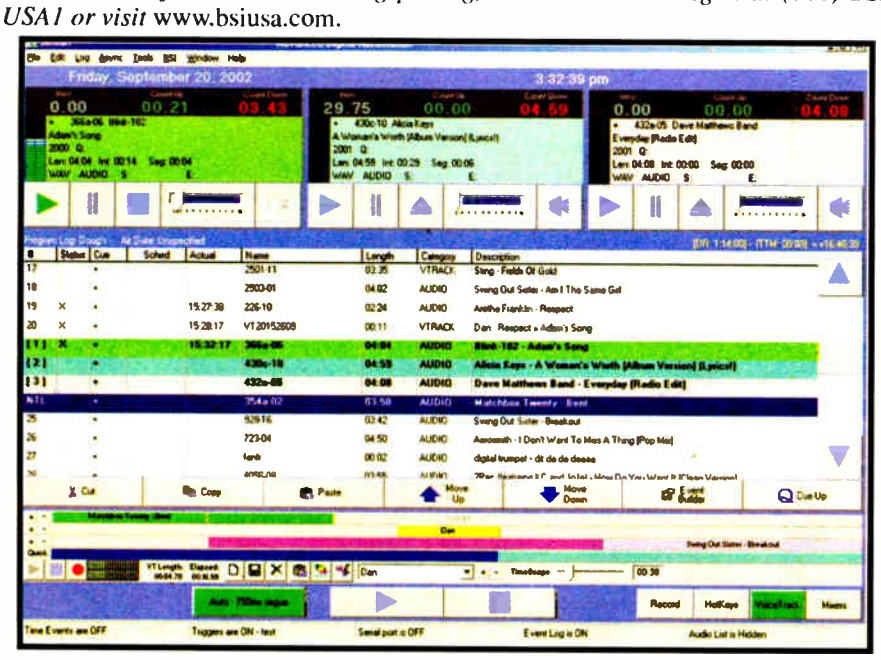
BSI said it has incorporated numerous user suggestions in recent releases, including improved deckfade macros to increase user control, improved index handling and playback on MP3 files, added control over the Async deck and increased Webcasting functions and serial strings.

A "Reset Cart" command allows Simian to go back to the first item in a cart, even if all the items have not been played. The software will hold and play back EAS or traffic messages at the end of songs or spots.

Simian can be used for satellite, live-assist or music-on-hard drive automation, or any combination. Satellite operation has been improved by the addition of mixer fader ganging control. Simian also has easier Voice-Tracking, the company said.

Simian includes one year of feature updates and telephone tech support.

For more information, including pricing, contact BSI in Oregon at (888) BSI-USA1 or visit www.bsiusa.com.



Simian software is equipped with audio file labeling technology.

TECH UPDATE

Easy Extraction With 360

Instant Replay, a hot-keys audio player from **360 Systems**, is a self-contained production studio and spot player that provides access to an audio library of as many as 1,000 cuts.

Up to 24 hours of CD-quality audio can be recorded to hard disk, edited and played back from 50 hot-keys, with no delay or restriction on cut length. Cuts can be played instantly, in any order and as many times as desired. Playlists can be built and stored for future use if audio elements are needed in a special sequence.

The company's Dash-E software is featured and includes editing tools, such as head and tail trims, fade-ins, fade-outs and gain changes. The software allows for extraction of sound effects and the creation of music loops or ambient effects.

Instant Replay cuts in banks of 50, so related sound effects of music cues can be stored together. Each cut can be given a name and identification number with the keyboard.

A printer port is included for paper listings of Instant Replay's contents, which are sorted by cut title, cut ID number or hot key. Punched front panel overlays are available.

For more information, contact 360 Systems in California at (818) 991-0360 or visit www.360systems.com.

World Radio History

USER REPORT

Mediatron Aids in Nova Radio Debut

by Björn Jost
Technician
Nova Radio

MUNICH, Germany At exactly 3:03:03 a.m. on March 3, 2003, Nova Radio launched its first on-air broadcast. We remain Munich's only station playing exclusively electronic music.

After realizing the need for such a station for the Munich area's DAB and cable frequencies, we considered the technical challenges. Our main focus was saving on the cost of expensive carriage lines. However, researching our options and budget brought us to a new conclusion: the vBC, Virtual Broadcast Center, from **Mediatron**.

The vBC transforms the complexity of a radio station into a 19-inch, four-rack-unit system. Using only an IP connection, it is possible to run the broadcasting system live or automatically.

Live broadcasting entails real-time audio transfer and remote control of the system, for which a standard connection is adequate. The remote control can be used by operating a PDA such as Compaq/HP IPAQ, and a GSM module with GPRS (i.e., mobile phone).

With its studio philosophy, the Virtual Broadcast Center offers radio producers a new and complete view on producing the daily radio flow and decreasing overall costs. The production procedure of a radio program is no longer bound to a fixed location. As soon as an Internet connection and the necessary equipment are available, it is possible to go on the air from anywhere or deliver elements to the On-Air system.

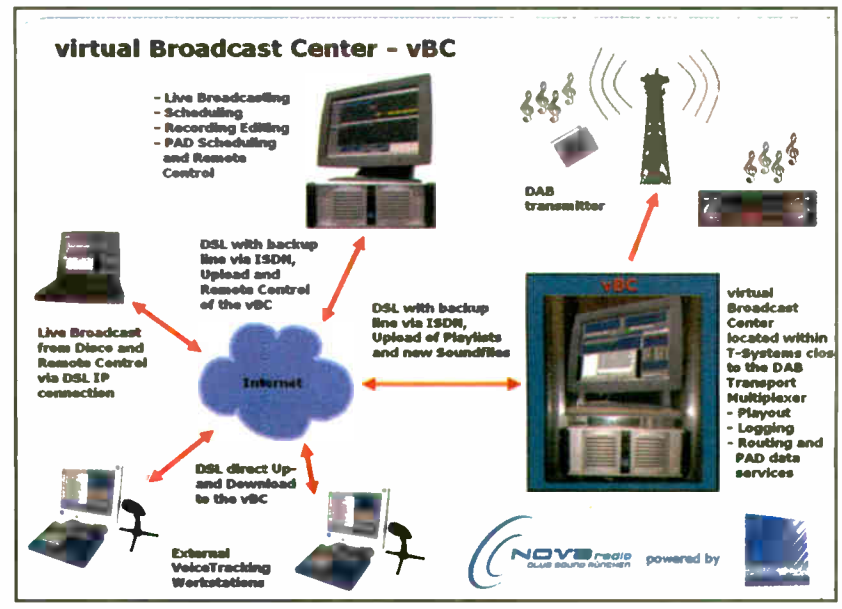
By using Mediatron's software, the on-air-, production- and remote-workstations were set up efficiently. We decided to use Mediatron's AirControl NT for the on-air workstation. NewsEdit NT is used in the production of voice elements and the recording of new sound files, for some of the music is only available on vinyl. Program schedules are being edited and arranged using AirEdit NT. After discussing the arrangement of music and jingles, Nova Radio decided to go with Music1-AirSelect, a new music scheduler from the United States.

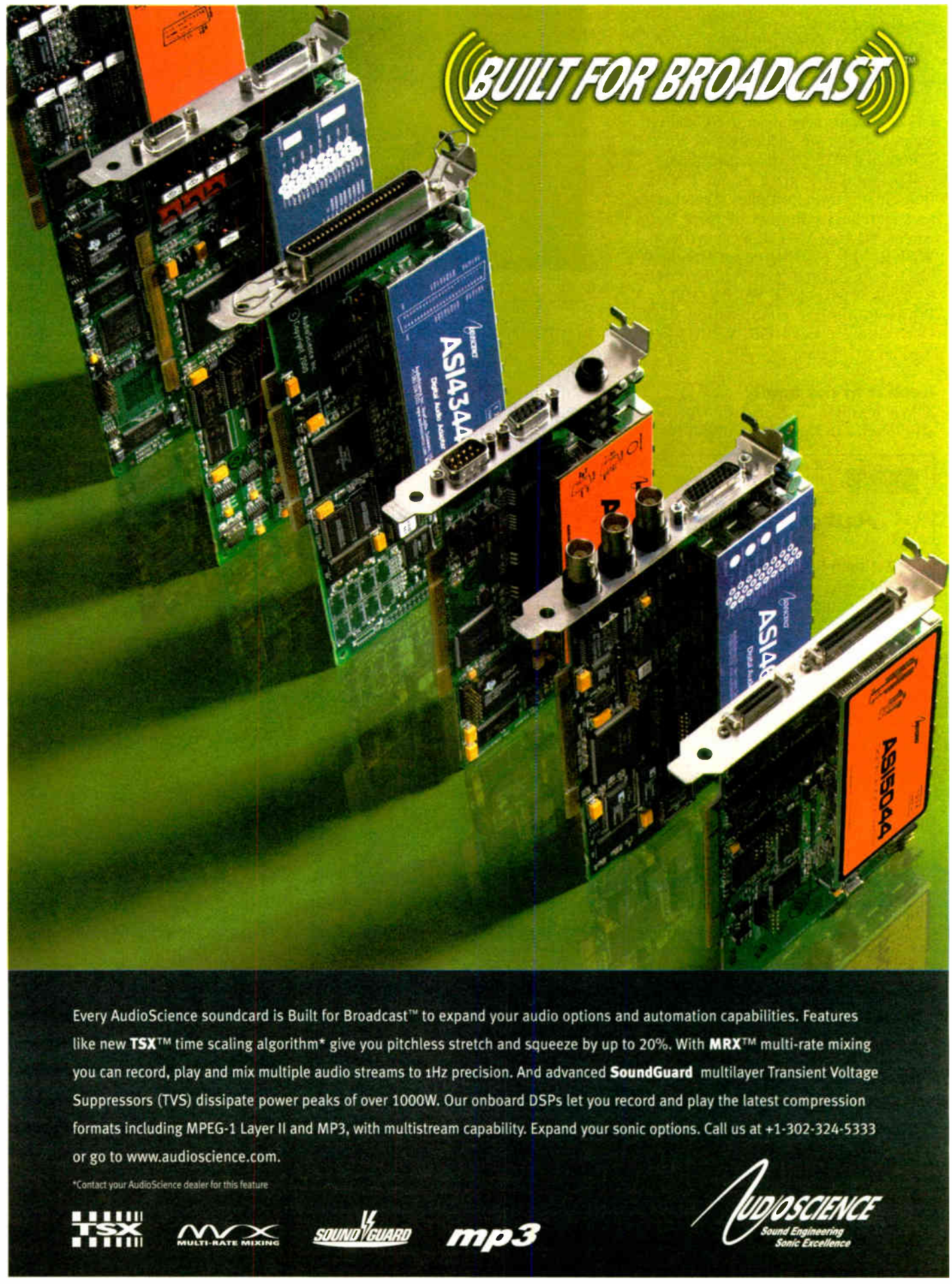
We decided against ISDN codecs in order to broadcast live from Munich's clubs in a cost effective and automatic manner. Due to the fact that there was no "in-a-box" software solution available, we developed our own system, the MediaTaxi, based on a DSL connection (IP). Compared to ISDN, this solution is more flexible and the costs for broadcasting are lower.

Only a laptop with MediaTaxi software, a DSL connection and a sound source (such as the DJ mixing console) are needed for live broadcasting. Once installed, even current events can be aired without any personnel at the location. The vBC takes over the routing of the audio signal, which is controlled by the program schedule.

Since the implementation of the vBC, it is finally possible to gather specialized radio producers, moderators and editors and involve them in the workflow, without being in the same place. Under general circumstances, this would not be an option.

For more information, including pricing, contact Mediatron in Germany at 011-49-8131-8305-0 or visit www.mediatron.com.





World Radio History

BUYER'S GUIDE

BE Vault² Plays Well With Others

by Paul Thurst
Corporate Director of Engineering
Pamal Broadcasting

BEACON, N.Y. With more stations to run and fewer hands to run them, **Pamal Broadcasting** needed our new automation system to be dependable, flexible, and above all, able to work well with other systems.

A smooth, cooperative working relationship was important to us, with Pamal Broadcasting having doubled its number of stations in three years, growing to 27 radio stations primarily in medium-sized markets in the eastern United States.

We needed a digital audio automation and storage system that could get along with any news system, studio or delivery system. We also needed it to network clusters of stations comprehensively and efficiently, should we suddenly have to take control of a studio from another studio.

The need was great in our five-station cluster in the affluent Westchester and Dutchess counties of New York, where WLNA(AM) of Peaksville and WBNR(AM) of Beacon are simulcasting the AC format, and WSPK(FM) of Poughkeepsie and WXPK(FM) of White Plains are simulcasting CHR. Our station in Peekskill, WHUD(FM), runs an AC format as well.

Keep it in the family

We wanted to bring operational efficiencies to the table without losing the individuality of each station. We also wanted to stay live and local, for we recognize that this has given us a ratings edge in the medium-sized markets we serve. (Pamal Broadcasting is rated No. 1 in Westchester and Poughkeepsie in both ratings and revenue.)

The BE Vault² efficiently networks clusters of stations.

In 1995, before I started with the group, my predecessor Dave Rosek had installed Broadcast Electronics' AudioVault 100 systems as needed during the acquisition of stations by Pamal Broadcasting. He configured each AV100 to handle the operational mode that fit the objective, whether it was live-assist or satellite operation, and picked from a suite of scheduling and production modules for multitrack editing, music rotation and ad insertion. As far as networking goes, the AV100 was one of the more advanced engines in the industry for its time.

Broadcast Electronics won us over again with its Vault², an upgrade to the AV100. As our station numbers began to grow, we realized a need for greater operational cohesiveness. Not only was this system an upgrade that required little or no additional staff training, but it had advanced networking features we could not find elsewhere.

We were most impressed by its network throughput. We found file transfers to be much faster because of the Vault²'s use of Microsoft's NT File System (NTFS), a faster exchange than the file system used previously.

A large volume of traffic running over the network is also not a problem. The new Digigram audio card used in the Vault², miXart 8, has four inputs and outputs. We compared this to the old system that had one of each, and required another daughter board for another input/output or two outputs.

The Vault²'s ability to use these advancements confirmed our practical decision to go from a complex four-server network to a more-streamlined two-server Vault² network. The system also made it feasible to traffic programming across 18 workstations; five in the stations' on-air studios, three in the offices of program managers, one in a network delay recorder, three full automation workstations and one each in the three production rooms and three newsrooms.

We even had money left in our budget to install backup hard-disk drives on each workstation for local storage of music. Our server drive space increased by almost 500 percent over what it was previously, and we are now capable of storing much more on the hard drives.

We'll take all the media storage we can get as Pamal has begun reentering our music libraries in a linear format (WAV) to eliminate the effects of cascading compression schemes, which could be a problem when the time comes to go HD Radio.

AudioVault Explorer allows us to manage our inventory assets with a graphical interface similar to Windows Explorer. Through our virtual private network (VPN), we can drag and drop files into various station folders in Poughkeepsie, White Plains or even outside the five-station network for our other stations in Gainesville, Fla. Audio cuts and other associated files may be moved automatically from one system to another.

Studio union

If we do a commercial in Beacon, it can be transferred to any other studio in the network with relative ease. This means our production people can be used throughout the company, rather than in one location. Our program managers can rip CDs, listen to cuts, edit logs and do a number of production functions from workstations in their offices, instead of having to book time in one of our busy production studios.

We've also noticed a more streamlined operation between our CBSI traffic system and Vault²; the log transfer is a much smoother transaction than it used to be.

From an operational standpoint, the Vault²'s ability to hand control of one station's studio to another network studio is critical. If the time comes where we need a temporary fill-in, we can voicetrack from and to anywhere in the network. Vault² has everything we need to set up a quasi-wide area network that can connect with all 27 Pamal Broadcasting stations.

We just recently upgraded our flagship station in Albany, WFLY(FM), with the Vault² and plan to standardize on the system throughout the Pamal Broadcasting chain over the next year or two.

For more information, including pricing, contact Broadcast Electronics in Illinois at (217) 224-9600 or visit www.bdcast.com.

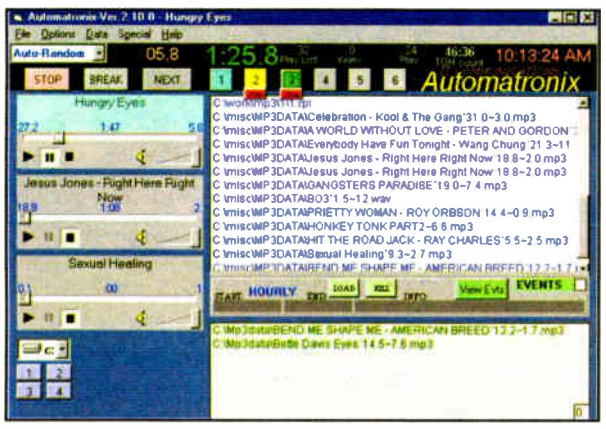
The Vault²'s ability to hand off control of one station's studio to another network studio is critical.

TECH UPDATE

Automatronix Nips Operator Error

JT Communications has released several updates to its Automatronix automation software, a music and event programming system targeted to radio broadcasters. The company touts its simplicity and feature set.

In addition to standard options, such as various modes of operation, a file tagging method and a "Live Mic" button for independent microphone control, the system includes the ability to operate the sound card microphone input from the main screen, and load a playlist from within a playlist. A playlist search engine allows rapid location of files.



Controlling the randomization of playlists during mode changes is an option. A bad-file detection feature rids the system of any anomalies.

A voiceover file feature allows files to match voiceover time, resulting in a precise estimation of "talk-up" time leading to the introduction of each song. Operator error is eliminated by an automatic function that corrects invalid overlap times.

Six programmable independent hot keys are included; multiple hotkeys can be operated simultaneously. In case of accidental operator start, the hotkeys' functions can be stopped immediately. Players and hot keys flash alternating colors when the end of a song approaches; an event view screen enables the loading of an event via mouse click.

Additional features have been added to the file-tagger program, including the ability to create a database of variations (for a future music scheduler program) to assist in day-part, artist separation and other combinations. The purchase of an Automatronix system includes unlimited installations, two years of free software updates and unlimited technical support for 60 days.

For more information, including pricing, contact JT Communications in Florida at (352) 236-0744 or visit www.jtcomms.com.

World Radio History

USER REPORT

RCS Preps JRN for Showtime

by Jon Holiday
Director of Contemporary Programming
Jones Radio Networks

DENVER Every hour of the day, air talent at Jones Radio Networks are preparing to entertain millions of listeners at affiliate stations in all 50 states. What kind of preparation do they do and where is it done? What tools and support do we provide so they can streamline the prep for each program?

When you have nine 24-hour formats powering nearly 1,200 stations across the country in continuous operation from a single facility, allowing air talent a designated area for prep and programming assistants to edit music logs can be tricky. At the Denver studios of JRN, we have handled the integration issues and gone even further with the help of **RCS** and some of its software.

At many traditional stations, what was intended as a prep room ends up as a kitchen or storage room. I've seen many prep areas in the least connected rooms at a station, with little more than a coffee machine, a computer with dialup Web access, and maybe a printer down the hall. Often there's no phone, and rarely a TV.

As mentioned, we provide full-time formats to many stations in North America, and we need our operations managers and programming assistants to have access to the music and promo scheduling software. They must be able to make changes before a log is final. We created an area where they can surf the Web, write material and examine their upcoming program logs.

The success of our 24-hour music formats is a reflection of the programming skills of our people. Each of these formats has an operations manager. Vice President of Country Programming Jim Murphy and I work with each one as they massage the music libraries, adjust clocks and optimize rotations on each format. In turn, each OM works with a programming assistant from that format who handles the day-to-day music log scheduling and editing.

Tune in, turn on or log out

Our jock prep area is a decent-sized room containing cubicles, each with its own workstation with Internet-access computers. We offer dual T1 Internet access for Web availability throughout our enterprise network, so the pain and agony of dial-ups is removed. The browser used on each workstation is Microsoft's Internet Explorer bookmarked with a range of links that their producers and talent use in gleaning material for the next day's programs.

At each password-protected computer, the user can bring up RCS Selector music scheduling and Linker promo scheduling to examine a music log, change or create special themed programming or adjust songs and promos within the log. In addition, a television is always on in the prep area and tuned to one of several cable news channels by way of a satellite dish service. JRN makes available multiple subscriptions to several daily newspapers and a number of targeted prep services for specific formats.

Even though the prep work is detailed and extensive, it's important to point out that on our music formats, the station's music is the ultimate determinant of success. The programming assistant does a final check of each day's Selector music log and Linker promo log, manually juggling any songs or links (the RCS term for promos and sweepers) that need to be adjusted. It takes about an hour to prepare each show. Completed music logs are posted online for affiliates of each format to access in advance of air time.

The finished music log is combined with the promo scheduling software and Airwaves Traffic software, also from RCS, plus a second traffic system called Counterpoint. The final integrated log for each format becomes the core of the RCS Master Control digital playback system in the studios.

Right to the source

Even the best show prep system needs a strong technical infrastructure for efficiency. I'm not an engineer, so I asked our director of engineering, Richard Anderson, to describe the technical integration between studios for me.

He said, "We have a staggering 41 redundant RCS servers in a common area called the NOC, or Network Operations Center. These servers are running in a Windows Server 2003 enterprise domain. The feed from each format studio passes through the NOC on its way to the uplink. Our NOC engineers are always there, providing the final level of quality control, monitoring the formats and the software systems from RCS, watching for proper joins to AP Network News and rejoins to a format, and switching between servers as necessary."

Anderson explained how our ops managers and programming assistants can edit the logs from anywhere. "The people working with Selector, Linker and Master Control can access the RCS platform from any office, even from their home or on the road," he said.

See RCS, page 36 ▶

Hearing Is Believing

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World Radio History

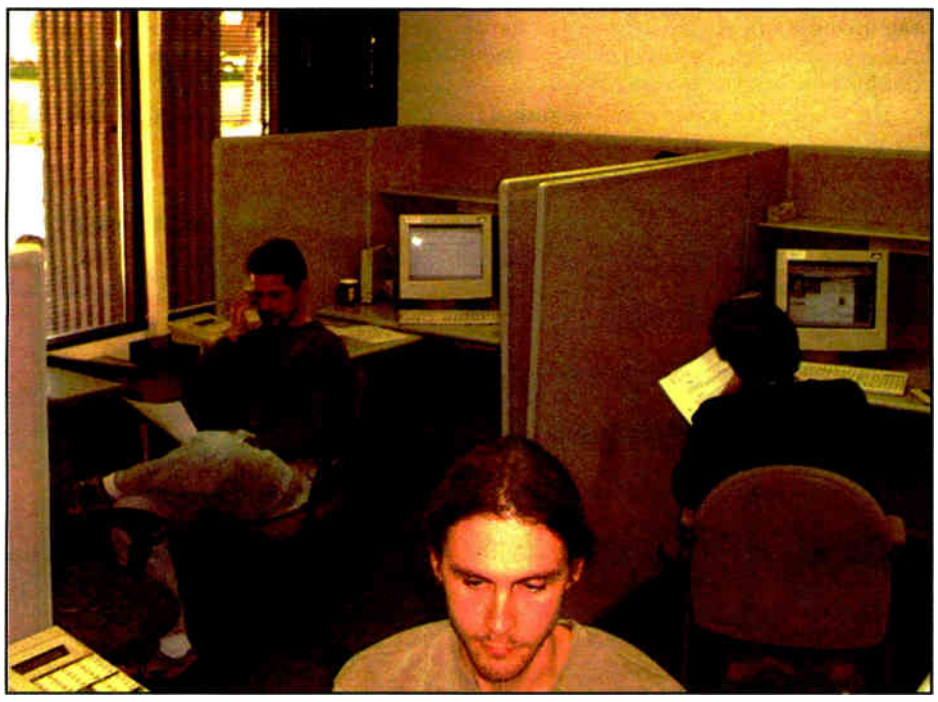
RCS

▶ Continued from page 35

"The installation of Citrix MetaFrame and Microsoft Terminal Server were the keys to the deployment, ease of use and support of the RCS software. I am always on the lookout for more streamlined and efficient technologies, so deploying RCS in conjunction with Citrix MetaFrame has centralized administration of the RCS system, increased availability and reduced cost tremendously," he said.

tor at our studios, adjacent to the NOC. And as a final protective measure, our redundant system at our uplink facilities just 2 miles from our studios is nearly complete."

Since the software integrator is critical to a company's success, I also asked Anderson about his luck with the RCS tech support team. Rich is a tough engineer and not easily impressed, but he did say, "RCS support is fantastic and their phone response is immediate. Even if I call Thanksgiving afternoon at 2 p.m., I get a live tech support person who knows Selector, Linker and Master Control inside and out."



Steve Wall, Scott Morrison and John St. John, from left, work in the Jones Radio show prep area.

When I asked about JRN's readiness for the unexpected power failure or data loss, Rich said, "We haven't experienced any blackouts like the Northeast did back in August, but we're ready in case we ever do, with two 50-kilowatt redundant UPS units plus a 250 KW diesel generator at our studios, adjacent to the NOC. And as a final protective measure, our redundant system at our uplink facilities just 2 miles from our studios is nearly complete."

Jones Radio Network is in a great position, on the fronts of content and technology, to handle our existing clients and accommodate many more in the future.

For more information, including pricing, contact RCS in New York at (914) 428-4600 or visit www.rcsworks.com.

USER REPORT

USDA Is Online With D.A.V.I.D.

DigaSystem Eases Production for Department of Agriculture's Traveling Reporters

by David Black
Broadcast Media & Technology Center Director
USDA Facility

WASHINGTON Several months ago, we at the United States Department of Agriculture's Broadcast Media & Technology Center evaluated our facility in Washington. Our team realized there were several areas in the studio we could improve to provide the best service to our constituents.

We began by looking into the creation of a new talk studio and control room with upgraded equipment. We happened to find a product streamlined our distribution of news stories.

First things first

Our initial objective was the renovation of the new studio, control room and equipment. Several government offices and departments use our facility, such as the Department of Interior. We use it for interviews and addresses with Secretary of Agriculture Ann M. Veneman and for the production and distribution of official audio. Because of its importance, our facility needs to be in top condition with the latest equipment.

However, Secretary Veneman felt our old studio was not conducive to interviewing. She wanted something more comfortable and ergonomically structured.

We brought in **Harris Corp.** for the remodeling, and the installation of the new equipment. The company also refurbished our RadioMixer console. With the reconstruction, our telephone information services were improved, and we now have an increased capacity for call-ins. The reconstructed studio had the features Secretary Veneman was looking for.

The second issue to be addressed was the streamlining of our news distribution process.

We have a team of reporters who write articles related to the agricultural business. The stories were manually entered onto analog carts with our old system. The USDA needed a tool that would automate the transfer of the audio articles to the telephone system and Web, thereby shortening the process and increasing the amount of information we could provide.

Harris believed the answer to our problem was a product designed to upgrade our current system to a Web-based one. At first we were skeptical, for we didn't believe there was a product available that would efficiently meet our needs. The USDA was asking for cutting-edge technology.

Harris listened to what we wanted and presented us with the out-of-this-world **D.A.V.I.D.** system, which automatically posts our articles onto our Web site, and loads the dial-in telephone system for remote access.

The D.A.V.I.D. can post the audio in three formats, MPEG, REAL and WAV, as well as in basic text format. The Harris and D.A.V.I.D. teams were able to integrate the D.A.V.I.D. into our existing system with only a few minor glitches.

The U.S. Department of Agriculture D.A.V.I.D. DigaSystem is online with three reporters, one control room, one

See DIGASYSTEMS, page 40 ▶

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World Radio History

USER REPORT

SBS, Scott Surf Automation Wave

by Ralph Chambers
Chief Engineer
Spanish Broadcasting Systems

MIAMI Most broadcast engineers inevitably will be faced with the need to upgrade their facilities to hard-disk automation. The "wave of the future" has crashed onto the shoreline and splashed into our living rooms.

Don't get me wrong; I have been looking forward to this day. And I am happy to say my first formal experience has turned out to be a good one.

The Spanish Broadcasting Systems' stations in Miami have been working toward the upgrade to live-assist automation since the purchase of two additional FM stations in 1996. WXDJ and WRMA were added to our successful WCMQ, which, in 1977, became the first Spanish FM station to air in Miami.

As we approached the new millennium, the replacement of turntables, cart machines and CD players became imminent. The old technology had served us well, but it was time to catch up with the new.

Sampling the marketplace

One particular benefit to us was that we were able to upgrade our production facilities to digital editing system three years before the live-assist automation upgrade was to occur for the air studios. This gave technical and program personnel time to develop a taste for the digital world without being thrown hastily into it.

I began my search, and research, for a suitable hard-disk system by reading articles, talking to colleagues, viewing demo disks and attending NAB conventions for hands-on viewing. Last summer, we were able to narrow the field from nearly 20 systems to three. **Scott Studios** was one of our finalists and our ultimate choice.

We were looking for a bulletproof software/hardware package that was not plagued by the usual problems associated with common consumer-grade computer systems and networks. It has been my experience that the failure rate of the common PC package is entirely too high for efficient use in professional broadcast applications.

Installation of the systems went especially well. The equipment, packaged well, arrived without freight damage. We installed the three VT-32 production systems, then began loading spots and ripping music onto hard-drives for each station. Because we had nearly 5,000 musical selections to archive, a temporary staff was required.

We installed three of the SS-32 air-systems in a temporary office in our program department, used for training air staff while the wiring and installations occurred. Personnel trained in compiling as well as uploading music and traffic logs to the servers.

With personnel training and cabling complete, the first SS-32 was plugged in one January evening on WXDJ. We played the last CD and switched over to the Scott Studios System; it has been running since.

Over the following three days we plugged in the systems for the other stations. Unless someone is keeping something from me, each system came online without a hitch.

I am pleased to report that the durability and smooth operation of the Scott Studios systems has been terrific. The SS-32 program software is performing well in the professional environment. It operates without the constant attention required for our other networks and hardware. We also have full remote-access capability for all systems.

For instance, we operated the first few weeks without the use of uninterruptible power supplies, as we waited for the delivery of the supplies. When power failures occurred, the systems would cold-boot in a short time, and come back on the air like nothing had happened.

We have since installed the UPS and have experienced pre-mature failures on a couple of the units. Again, the SS-32s continued to start up without reconfiguring software, installing drivers, reloading music and log files, or other means of nursing the units back to full operation. Repeated system restarts do not seem to cause problems.

Clasica 92 Traffic Announcer Barbie Simons and Afternoon Drive Personality Susy Leman.

Despite the fact that the majority of our air staff had little or no experience with live-assist automation, the upgrade to digital automation with Scott Studios products and support was smooth. The company sent Andy Soule to us for 12 days to assist with installation, final configuration and training.

Andy trained our personnel on the use and operation of the peripheral programs provided by the company, such as TLC, or Trim-Label-Convert, which is used to rip all music and load spots onto the servers. He also familiarized the staff with Merge and Dispatch programs, used to upload and maintain all traffic and music logs. What a pleasure it was to have Andy help make our transition an enjoyable experience.

Scott's equipment proved itself during the recent Northeast power outage. The chief engineer for WSKQ(FM) and WPAT(FM) connected a Comrex HotLine telco coupler with WCMQ at 12:30 p.m., after power was restored to the Empire State Building transmitter for both stations. He then called me and arranged the connection. The two New York stations were back on the air broadcasting from Miami within five minutes of the call, operating via SBS's Scott Studios Equipment.

Scott technical support is efficient and timely. The systems are easy to learn and operate for those with even moderate computer/network experience.

I feel I have written this report more for the station owners/managers who may be looking for their facilities' first hard-disk automation system, or are considering the replacement of an existing system. Regardless of your market size, I recommend Scott Studios for your next automation investment.

For more information, including pricing, contact the Dallas-based company at (972) 620-2211 or visit www.scottstudios.com.

USER REPORT

Now Playing: Radio One and Maestro

by Don Stevenson
Chief Engineer
KBFB(FM) and KSOC(FM)

DALLAS For about three years, talented jocks and a pair of **Computer Concepts'** Maestro digital systems have been working hard, pumping hip-hop, R&B and soul. Radio One recently took over KBFB(FM) and made it "The Beat." They also added KSOC(FM), also known as "KSoul."

With all of its other stations using the Maestro platform, the decision to purchase Maestro for KBFB was a logical one for the Radio One corporate office. Common formats allow users within Radio One to communicate questions about the system and keep a strong internal user base.

Because there was no staff yet for KBFB, the Maestro system was purchased then shipped to another Radio One facility with a similar format to KBFB's proposed format. That station copied all their music files and dubbed promos and sweepers onto the Maestro system.

When the process was complete, the system was sent here, where it was installed and operated for the next month or so. During that time, a general manager was hired for KBFB and he, in turn, hired his staff to run the station. The Maestro allowed us time to get the staff in place for the startup.

The facilities for these stations are elegant, considering their space had been converted from a movie theater complex at Valley View Mall in North Dallas.

The smell of popcorn is gone, but the hip-hop, R&B and soul stations remain highly visible to listeners who pass through the popular mall on LBJ freeway. Film projectors were once in the overhead bridge that has been redesigned for on-air studios. Passers-by can see our on-the-air personalities through the window.

We have six workstations installed in the studios, and a common file server. This allows us to have all the audio stored on the server. The benefit of the server is that an audio cut dubbed from a workstation is available instantly on all workstations.

Simple pleasures

Because audio normally is played from the local drive of every workstation, a requested cut that does not exist on the local drive will play across the network in real time. Usually, this only happens if a cut is called for by another workstation immediately after it has been recorded.

We use the AES input and output on the Maestro. This allows us to interface our digital audio console and dub music or any other source without converting back to analog audio. Audio playback in the control room interfaces to the console digitally.

We currently voice-track the overnight shift and some weekend shifts. The VoiceTrack module allows us to use the system when necessary. Jocks can go to any production room and click on the VoiceTrack icon. After selecting the station they want to voice-track, along with the day and the time, jocks are taken to a window that shows them the first voice track within the hour specified. When they record, they hear the end of the song and can begin talking when it sounds normal for them to speak. Simply tapping the space bar allows them to fire the next element.

The simplicity of this system has allowed us to get users voice-tracking with minimal training time involved. Lynne Haze, midday jock on 94.5 K-Soul, says, "When I first heard the company was putting a computer in our studio, I was terrified. But now, I love it."

Haze said, "With Maestro, I voice-track the first three hours of my shift the day before, so it's current. I even use phone calls in the tracks, so it sounds live. I like being able to see the log and what's going on. Maestro also lets me color code my Cart Express instant play buttons. Being a woman, I like that."

K-Soul afternoon jock Smokin' Kevan likes Maestro's consistency and flexibility. Midday personality Big Bink likes the countdown clocks, which help him keep a tight board between songs and sweepers.

Down the catwalk, nationally known TV star and comedian Steve Harvey does mornings on The Beat in Dallas, as well as on The Beat, KKBT(FM) in Los Angeles. The Dallas and L.A. stations use identical Maestro studios, making it easy for Harvey to work in either location. Harvey originates from each city on alternate weeks.

Maestro certainly has saved the day for KBFB. Shortly after the move to the mall studios, a major lightning strike took out all the station monitors, KVMs and consoles — all except for our Maestro and STL. I plugged the Maestro straight to the STL transmitter and stayed on the air until we were able to recover the rest.

For more information, including pricing, contact Computer Concepts at (913) 541-0900 or visit www.computerconceptscorp.com.

World Radio History

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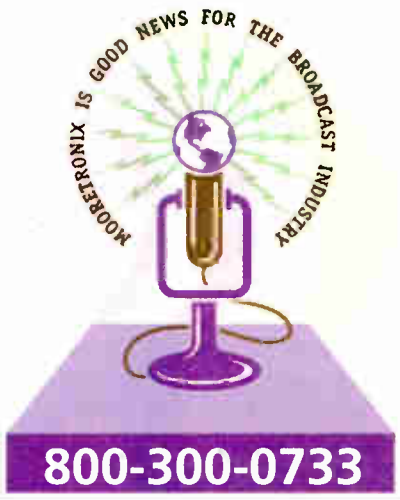

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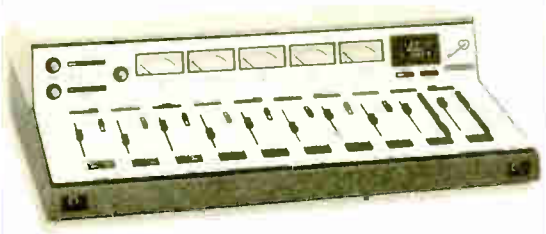

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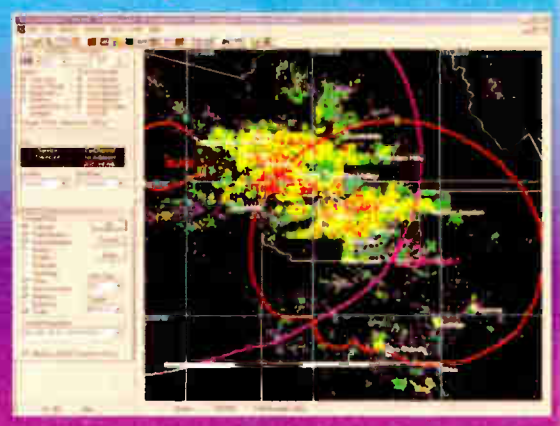

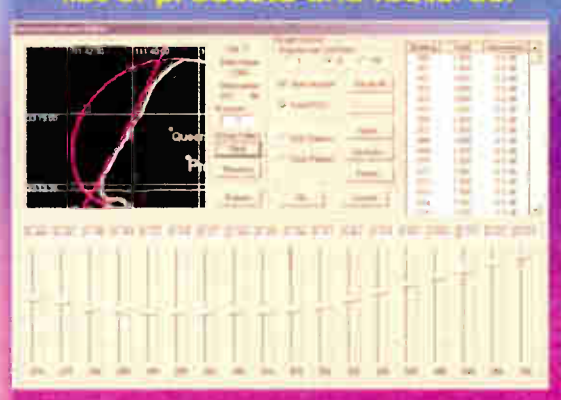

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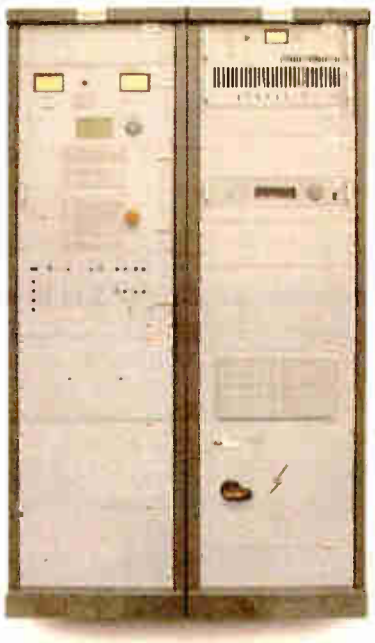

The Bext 35 kW FM transmitter is pictured here. ***Not shown:*** A catalog of reliable transmitters at all power levels, solid state and tube, plus STLs, translators, antennas, combiners, etc.

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World Radio History

USER REPORT

AEQ's Mar4Win Translates for RTM

System's Ability to Process Several Languages Was a Key Factor in the Company's Selection

by Omar Alaoui Hanafi
Head of Digital Systems
RTM

RABAT, Morocco After deciding to make the switch to digital, the Moroccan State Radio and Television Company (RTM) began to consider the automation systems of several companies.

Our regional stations required a system that offered ease of use to our technicians and journalists, and a comprehensive feature list for the execution of everyday tasks at a radio station, such as recording, editing and broadcasting audio signals, and processing news. The ability to translate the Arab language for our audio file databases, broadcast lists and news items was an important part of the criteria.

We selected **AEQ's** automation program, Mar4Win, to meet these requirements.

Identical setups

The system was first installed in the regions of Oujda and Agadir. The straightforward, user-friendly nature of this program enabled our technicians and journalists with limited IT skills to become familiar with their new daily tasks in a short period of time. The program schedules of these stations were fully automated within months.

Each regional station is equipped with Mar4Win's computer network, comprising Compaq components.

Each regional station is equipped with Mar4Win's computer network, comprising Compaq components. There are two Compaq Proliant servers with mirror disks for more than 600 hours of audio in MPEG Layer II format, at 48 kHz and 256 kilobits per second. These servers are installed in a 40U rack in an air-conditioned room, with the elements necessary for optimum networked operation of the system. Also included are 10 Compaq workstations with 17-inch TFT monitors for ergonomic working conditions, each fitted with Digigram professional soundcards.

The installed Mar4Win system is the same at each workstation, so that any task may be carried out at any location, whether it pertains to broadcasting, recording, news or music programs. AEQ allowed for the combined handling of information records in Arabic with records in other languages, such as French or English. It also adapted the application's interface, so that each user can choose their preferred language.

The software modules included are Mar4Win, for creating, editing and broadcasting audio, texts and lists; Mar4Xtrack, for recording and editing audio of up to 32 tracks; and Mar 4Dac, for the digital extraction of audio tracks from compact discs and their posterior conversion to Mar4Win format.

Special recognition must be given to Mar4Autolist for facilitating the task of classifying and processing the music available at the station. In the world of radio, it is common to have a comprehensive collection on hand that covers the needs of the formula in question. Thanks to this module, we can maintain the stations' musical archives, automatically generate broadcast lists and print out reports on all the information processed. This saves many hours of work spent on rescheduling programs, and enhancing the coherence of the musical style offered.

The RTM management is most satisfied with the work carried out by the AEQ professionals, its Moroccan distributor, ABCHIR and the Mar4Win system.

For more information, contact AEQ in Florida at (954) 581-7999 or visit www.aeqbroadcast.com.

Hamza Bachiri, technical director of RTM's regional station in Oudja, tests the AEQ Mixing and Automation System.

USER REPORT

Stations Go Mobile With Pristine

by Roger Lamb
Director of IT
WJMI(FM), WKXI(AM-FM), WOAD(AM) & WYJS(FM)

JACKSON, Miss. In 1999, after several years of operating older DOS-based automation systems with CD jukeboxes, we realized it was time for an upgrade.

As the computer guru for our five-station Clear Channel cluster, I was assigned the task of finding a solution. It was determined that replacing everything with CartWorks digital audio systems would cost considerably less than upgrading the old systems. We moved to the digital audio system that offered better compatibility, features and overall easier operation.

Over the past four years some things have changed a bit. Our stations have become part of the Inner City Broadcasting Team, and CartWorks has become CDS32 (Content Delivery System) and is now part of the **Pristine Systems** team. The two digital audio companies merged last year to form a larger corporation with offices on both sides of the United States.

CartWorks performed well for all our stations, and technical support was always second to none. Thus, when CDS32 became available we definitely wanted to check it out. We upgraded one of our stations immediately with the others following shortly. CDS32 went to work with little effort.

Multi-faceted solution

Pristine's CDS32 allows a station to reach its listeners in new ways. The system is capable of delivering song titles, artist names, photos and sponsor logos to the station's Web site in real time. CDS32 can feed an RDS encoder a steady stream of similar content, which is a great feature with nearly 70 percent of all new cars including RDS receivers. In addition, CDS32 implements RDS flags, like the TA flag used to tune radios to our station for traffic announcements.

CDS32 systems play most commercially available music libraries or files, uncompressed WAV, MPEG Layers II and III, Dolby AC2, ADPCM and many other formats. Pristine includes a CD ripper program, CDTrax, to speed up music dubbing. It has saved us countless man-hours. In addition, CDS32 reads the logs generated by our traffic and music scheduling programs, and the operator can make changes in real time to either.

A comprehensive Audit Log function reports what has and has not played, and any errors that occurred. We can perform quick scans in advance to make certain all spots on a log are available. The general manager and operations manager are pleased because this has resulted in fewer missed spots and mistakes on the air. Our traffic and sales departments like the Audio Browser, which allows them to listen to any file on the systems from their desktop PC.

CDS32's format was designed to look familiar to radio operators, so training was minimal. The system is intuitive and works under the Windows XP Professional operating system. Our jocks were up and running immediately with few complications. There are no multiple levels of menus and screens to drill through just to make a simple change.

A nice benefit of Vtrax is that voice tracks don't have to be cut on the workstation that will be playing them.

Our announcers can see the music log on screen with CDS32's Vtrax Voice Tracker. They select the voice track position to "record" and click "start." Vtrax then plays the last 15 seconds of the preceding song, as well as the one that follows, while recording the voice element. The announcer gets the feel of actually being on the air because he hears what will be playing in context. As a result, our voice tracks sound virtually live and less canned.

A nice benefit of Vtrax is that voice tracks don't have to be cut on the workstation that will be playing them. They may be recorded from any CDS32 workstation on the network.

Not only does this free up rooms for other work, but we also can have more than one jock cutting voice tracks for the same station simultaneously. Also handy are the HotKeys. Each jock has available for immediate use his or her own customized group of up to 48 frequently-used buttons with beds, drops, sound effects, etc.

To protect our valuable music and commercial libraries, we ordered the RAID Mirrored Hard Drive option. Everything is backed up to a second hard drive that automatically takes over if the main drive fails. We think of it as cheap insurance against an expensive potential problem. I also looked at touchscreen monitors, but decided they were unnecessary in live assist operations.

We are considering adding Pristine's Pocket Radio Station, winner of Radio World's Cool Stuff 2002 Award. This would allow us to operate any of our stations remotely by way of a PocketPC. One-man remotes, ballgames and live news coverage are possible without having someone man the station's console.

Special situations, routine remote broadcasts and various weekly programs are facilitated because CDS32 lets us go live anytime with the press of a button. On the few occasions we've needed it, tech support provided quick response, and seemed to be as serious as we were about correcting the problem. Their friendly and knowledgeable 24/7 emergency response team gives us peace of mind. The CDS32 is a stable, user-friendly and powerful choice.

For more information, including pricing, contact Pristine in California at (310) 831-2234 or visit www.pristinesys.com.

World Radio History

USER REPORT

MPR Automates With DAD's Help

ENCO Systems Expedites Weather Forecasts and Audio Distribution for MPR Networks

by Shane Toven
Broadcast Engineer
Minnesota Public Radio

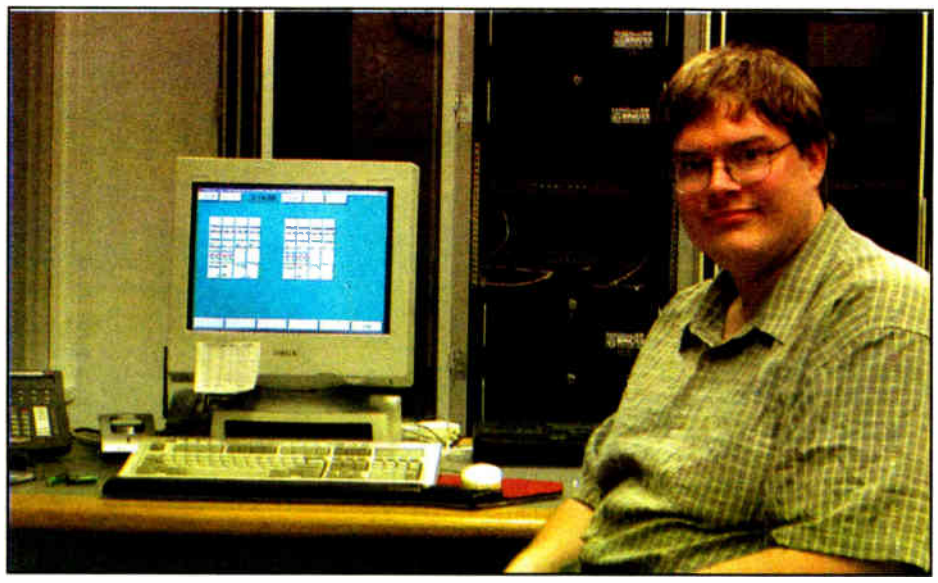
ST. PAUL, Minn. Minnesota Public Radio operates two regional networks, classical music and news, consisting of 36 stations in Minnesota and surrounding states. We set out to design a system to deliver localized weather forecasts to our stations, and realized a need for a system capable of automatically processing audio files from an outside provider, and then distributing them to our stations — all without operator intervention. **ENCO Systems** provided the solution.

We had used ENCO in the past for other applications, so we were familiar with the company.

Our previous automation systems were aging and becoming difficult to support. Replacing them with ENCO DADpro32 systems allowed us to eliminate this problem, and added the functionality we needed for the weather delivery system.

DAD stands for Digital Audio Delivery. That's what the system does, and that's what we needed. We were able to replace two PCs and lots of proprietary hardware at each station with a single machine and a switcher. Many of our locations have the classical music and news stations co-located.

One ENCO workstation provides satellite automation for both stations at each of these sites, as well as local production capability for the sites that have studios.



The author poses in Minnesota Public Radio's St. Paul headquarters.

Highlights and features

DADpro32 runs on a standard Windows 2000-based PC and can use a variety of sound cards. I have been using the Digigram PCX series of cards successfully for some time. ENCO also supports the use of the AudioScience brand of cards, or even common Sound Blaster compatible cards for desktop PC applications.

The rack-mount PCs that ENCO supplies are built with good cooling and quality components. Interfacing to external hardware is straightforward. If the device to be controlled has a serial port or accepts contact closures, ENCO can control it and respond to its feedback. Workstations can be networked to a central server, run as a peer-to-peer or operated in standalone mode.

One of the most unique features of ENCO's DADpro32 is its programming language, called DAD Command Language and DAD Programming Language. DCL commands allow almost any function within the system to be automated. DPL allows logic statements to be applied to DCL commands. The combination of these two features allowed us to perform complex tasks to automate our ID sequences.

While we use ENCO primarily for satellite automation, there are also a number of "machines" within the software that are designed for live-assist operation. The main operator interface to the system consists of large on-screen buttons that are designed for easy access with either a touch screen or a mouse.

ENCO offers a separate software package called Dropbox. This allows us to take the weather forecasts coming in via FTP from our provider as MP3s, and inject them automatically into the system. Once they are in the system, another ENCO software package called Gateway distributes them over our WAN to the stations.

An added benefit of using Gateway is that in addition to the weather, it allows us to send audio directly into a station's automation system. Previously, the audio was recorded manually from the satellite during a regular weekly feed, edited on a separate editing workstation and rerecorded into the automation.

Traffic reports were also a major headache. We had written custom software to interface between the traffic system and our previous automation system, and importing logs was often via floppy disk and "sneaker net." ENCO supplied an import utility and a log reconciler to work with our traffic system. Gateway automatically handles transfer of playlists and logs to and from sites.

The reliability of the software and the support from ENCO have been spectacular. The company has firmly supported its product and is responsive to the user's needs.

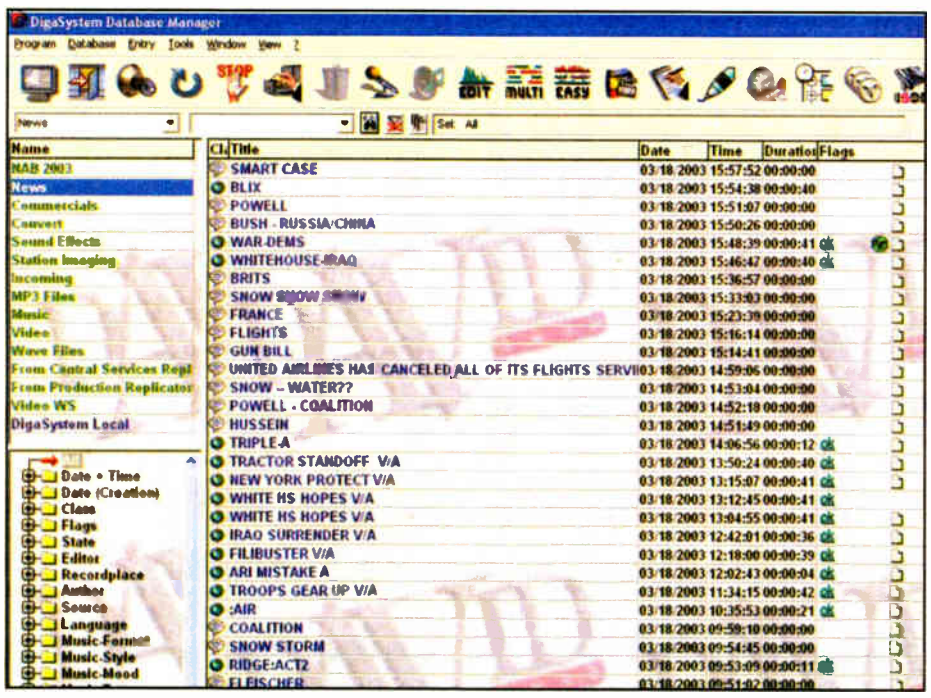
For more information, including pricing, contact ENCO in Michigan at (248) 827-4440 or visit www.enco.com.

DAD stands for Digital Audio Delivery. That's what the system does, and that's what we needed.

DigaSystems

▶ Continued from page 36

Web interface, two telephone playback controllers and two technical / administrator positions. USDA reporters travel to agriculture-related events and attend press conferences to gather news on MiniDisc and DAT devices. The reporters come back to the Washington facility, or a Web upload location for traveling reporters, and load their audio onto their multitrack editors, edit the stories, add any additional text, pictures, etc., and then evaluate which stories are to be posted. (The DigaSystem has a check box indication for this approval).



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While my team is pleased with the spectacular results, the real stamp of approval comes from Secretary Veneman. She has already brought other government officials to show off "her" radio studio.

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World Radio History

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Audio Arts 8400 Distribution Amplifier. We have about 15 of these as a result of studio renovation. They cost over $1,100.00 new but will sell "as is" for $300.00 each plus S&H. Contact Michael Raley at (704) 523-5555 or e-mail Mraley@rrb.org for a picture.

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Denon 650 F CD player. Will sell "as is" for $225.00 plus s/h. Email Mraley@rrb.org for picture or call (704) 523-5555 for more information.

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Ten Nidec motors for Audiocord "E" series. 117v 6H 3.1w 0.2amp 12p and 600rpms. Will sell "as is" for $5.00 each. Working condition just somewhat noisy. Call Michael Raley (704) 523-5555 or e-mail Mraley@rrb.org.org for pictures.

TFT 713 AM Frequency and Modulation Monitor. Cost $3,400.00 new but will sell for $1500.00 plus S&H. Needs recalibration. Call Michael Raley at (704) 523-5555 or e-mail Mraley@rrb.org for a picture.

Two B.E. Record Playback cart machines Two Stereo units "as is" for $65.00 each and two mono units "as is" for $50.00 each. Call Michael Raley @ (704) 523-5555 or e-mail Mraley@rrb.org for pictures.

Two RTS 416 Distribution Amplifiers. Has slight problem pushing +4. Cost $1,173.00 new but will take $325.00 for each unit plus S&H. Call Michael Raley at (704) 523-5555 or e-mail Mraley@rrb.org for a picture.

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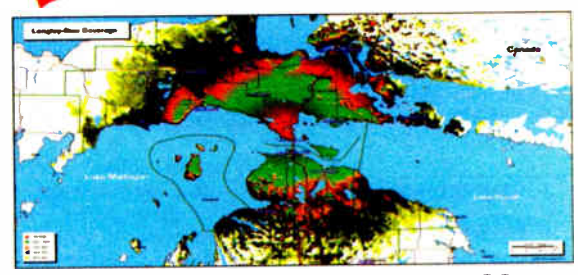

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World Radio History

◆READER'S FORUM◆

A Legitimate Listener Speaks

In the article about translator applications ("Translator 'Flood' Causes Concern, Sept. 10), FCC rules are quoted as saying that if a translator causes interference to another FM full service station, the FCC must receive complaints from "legitimate listeners independent of the complaining station" before the translator would be required to cease operation or reduce power to eliminate the interference.

Control of interference was among the prime reasons for the Communications Act of 1934, which established the FCC and replaced the failed regional, semi-self-regulatory philosophy of the old Radio Commission. The fallacy in this approach is that the FCC presumes there are "legitimate listeners" who are qualified to recognize the extent and significance of the interference and are motivated enough to want to file a formal complaint.

First, the FCC should be preventing this interference. But when idealism clashes with realism, the commission should at least be willing to act on a complaint of interference no matter what the source. A key basic purpose of having an FCC to administer the spectrum is to have informed experts ready, willing and able to act on behalf of the general public in areas that the public, by itself, cannot effectively act in its own.

The same failure by the FCC to step up and act on behalf of the public doomed AM stereo.

I do not propose returning to the days of "super-regulation" of broadcasting where 10 years would go by without a decision by the FCC on an application. But when the FCC rules say it will not act on an interference issue until it receives complaints from "legitimate listeners," the pendulum of technical deregulation has swung too far. How is a broadcast station going to build listeners if the station signal is suffering destructive interference?

Raymond Voss
Retired Broadcaster
Edina, Minn.

And the Winner Is ...

I received the AKG K 271 headphones that I won in the "New Technology Sweepstakes" (Sept. 24), and they sound great. Quite possibly the best headphones I have ever heard!

Ken Burns
CVK Sonrise Host/Information Systems Engineer
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'Human Ears Are Analog'

In the Sept. 1 *Reader's Forum*, Thomas Ray III, corporate director of engineering at Buckley Broadcasting, takes me to task for the comments about the IBOC signal delay for broadcasting baseball games ("IBOC Misinformation"). Okay, so I was mistaken about the sport. WOR(AM) broadcasts Rutgers University football and New Jersey Nets basketball.

But Mr. Ray admits that IBOC does create delay in the signal. To compensate, he uses a milliwatt FM transmitter (analog) that feeds mix-minus audio for monitoring by staff. He also says he has read the "white paper" regarding Cam-D. Nice try, but there is no "white paper," unless he is referring to Kahn's FCC filing.

Mr. Ray reasons that signal coverage needs to be redefined and that AM broadcasters will have to accept smaller coverage areas. Again, how many broadcasters will be happy going backward by reducing to 5 kHz mono signal to compensate for IBOC? Will WOR(AM) and other 50,000-watt stations enjoy cutting nighttime coverage by up to 75 percent?

Mr. Ray accuses Cam-D of going beyond 8 kHz, which is not true. He made no mention of adjacent interference, even in the daytime, such as the case with WLW(AM) in Cincinnati. He also failed to address the obsolescence of half a billion radios by IBOC. How long will it take to replace these radios? Conversion costs could reach $175,000 with new towers, and this expense could bankrupt small stations.

Most good engineers prefer analog to digital with its highly processed sound. I like the comment of Terry Jordan (page 43 of the same issue) who said, "Human ears are analog." Time will tell.

Meanwhile, I suggest AM broadcasters take a look at Cam-D 8 kHz stereo and its possibilities.

Ralph J. Carlson
President
Carlson Communications Intl.
Salt Lake City

Just the Facts

The article posted on Radio World's Web site, "Ibiquity Charts a New Course" by Guy Wire contains the following statements about DRM: "Digital Radio Mondiale was invented as an all-digital replacement for international analog AM broadcasting below 30 MHz ... Nor does it offer a hybrid digital/analog mode to allow analog to remain useable."

This statement is factually incorrect, since DRM does indeed have a "simulcast" mode, which has both analog and digital components.

The article also contained the following statement: "While it could be done, DRM provides no information about that on its Web site or any other public communications."

This statement is factually incorrect as well, and I have provided a sample link from the DRM Web site for readers who may have questioned this comment: *www.drm.org/newsevents/faqs/faq-053.htm.*

The RW Online Web site will be widely read within the United States radio industry and a statement such as this is likely to adversely affect the perception of DRM, as well as misinform your readership. I'm sure you'll wish to publish a correction, as you surely pride yourselves on the accuracy of your reporting

Carey Taylor
Glasgow
United Kingdom

Ed. Note: A reply to the above from columnist Guy Wire is posted at www.rwonline.com. Click on Guy Wire, then under his Internet Mailbag.

Eureka-147 vs. IBOC

I bet most Americans would pick Eureka-147 over IBOC AM and FM if they could choose. Why add to something that cannot be fixed properly? Furthermore, IBOC will not match the rest of the world's new standard.

This means that when traveling up to Canada in your American car, the radio won't work as soon as Canada abolishes the AM and FM old standard. It will only work on the borderlines. This decision was made to keep bad radio stations on the air, for they would never have made it to the L-band on their own poor ratings.

If XM Radio and Sirius got together, and went coast-to-coast broadcasting via commercial advertising instead of subscription fees, the American public would not even bother listening to the poor selection that is broadcast with digital IBOC AM and FM in limited regional markets.

I think IBOC was a bad choice from the FCC, and eventually we will be forced to switch to Eureka-147. It might take 10 years, but they will switch.

Dom Gentile
Boston

That's the Spirit

We had been looking for some time at a Spirit ES to replace a prematurely aging Behringer production mixer. As Al Peterson noted ("Spirit ES Goes the Stereo Route," July 16), the stereo inputs were lacking on competitive mixers, and the Behringer was no exception. Based on your review, the Spirit looked like a good deal, except for the lack of auxiliary returns, which we needed for a reverb box.

I had resigned myself to using up a stereo channel, and then I noticed the "2-track to mix"' switch. When you hit this switch on most boards, you disconnect the rest of the mix and feed only the two-track input to the main outputs. Of course, this feature is designed to allow you to play music from tape, MD, etc., between sets at a live show without having to mess with the rest of the settings on the board.

On the Spirit, however, it just adds it to the mix. Problem solved!

The output on the reverb can be adjusted to match the needs of the Spirit. We could use the effects in the Cool Edit Pro, but it's easier to turn up the Aux 1 and 2 and hear the effect in real time. Best of all, everybody here at WRAR(FM) likes the sound of the Spirit.

Thanks for the *Studio Sessions* column. Sometimes we forget what radio was like before satellite programming. I'm still not sure they were the "good old days," either!

Frank S. Miner, III
Chief Engineer
WRAR(FM)
Tappahannock, Va.

Les Proctor Looks Back, and Ahead

The old towers in the accompanying photograph have come down to make room for new road construction. KNEB(AM) in Scottsbluff, Neb., is now an AM/FM operation owned by Nebraska Rural Radio Association, and has increased AM power to 5,000 watts daytime with the move to its new transmitter location about four miles from the original site. Our new studios have been built and we have already moved in.

I wanted to send this letter and picture in praise of our chief engineer, Les Proctor. Excluding one year spent in the Army, he has been with KNEB(AM) since the towers were erected in 1947, and we went on the air as a 250-watt daytime station. Proctor, 77, is thinking of making a career in the radio industry, and we couldn't be more pleased to have him aboard.

Les Proctor in front of KNEB(AM)'s original towers.

Marty Martinson
Station Manager
KNEB(AM-FM)
Scottsbluff, Neb.

World Radio History

◆READER'S FORUM◆

Buyer's Guide Prospect

The next time you spotlight audio processing in your *Buyer's Guide* section, take a look at a $100 mulitiband software package called MBL4. It is designed by John Burnill of England. FM with this computer multiband processor software can actually compete with the high-dollar big boys.

Check it out. I believe it could be beneficial for many smaller broadcasters.

Gary Morgan
Contract Engineer

VoxPro PC

Ken R. wrote an article about "Software Editing: Better, Cheaper" in Radio World's Sept. 24 issue. He writes of everything from Cool Edit Pro, to AudioDesk to Motu, SADiE, Orban's Audicy and Spark XL, but there was no mention of one of the industry's most popular editors, VoxPro PC.

Not only did Radio World not reach us, it made no attempt to speak with us, period, about our popular, successful and now cost-effective product line.

While Radio World didn't give us the time of day in this article, Audion Labs would like to let everyone know: VoxPro PC exists!

We don't have 128 tracks, because we built our product as requested by our customers. On-air talent and producers aren't creating symphonies or movie sound tracks, they're composing great audio product, fast, for re-broadcast on-air.

When they wanted instant access to their work, we added networkability. When they wanted access to other folks work, we added the ability to import and MP3, MP2, AIF, WAV and WMA files and export most files.

We're reliable, fast and super-easy to use. Just ask our ever-growing number of happy customers. And VoxPro PC is affordable. We really give you two products bundled as one for $999 (VoxPro PC Software with VoxPro PC Network).

For information and a list of our resellers (who do great work for us — thanks!) please go to *www.audionlabs.com.*

And next time, Radio World, please do us the courtesy of a call. We'd be delighted to speak with you.

Tyrone Noble
President
Audion Laboratories
Bainbridge Island, Wash.

Ed. Note: The VoxPro PC was described in the Buyer's Guide of the same issue. RW regrets the omission in the software editing story.

Abusing FCC Policy

For many years the FCC has had a policy of granting preferential treatment to applicants who propose local radio service to communities lacking in radio service or depending on service from distant stations. This policy makes sense when the community to be served is in a rural area; but it was never intended as a back-door attempt to add to the number of stations serving major metropolitan areas.

Lately we've been seeing an upsurge in the use of the "first local service" as part of a ploy to move rural stations into the big city. Southern Arizona is a prime example.

Recently, the commission granted a licensee permission to move his station from Nogales to Vail. Vail doesn't have a gas station, let alone the ability to support a radio station. Nevertheless, the commission fell for the "first local service" line and is considering two similar proposals for a first local service.

One is for a tiny village outside Tucson called Corona de Tucson, which does have a gas station but not much else in the way of retail business. Perhaps the most absurd current proposal is to move a station 60 miles from Willcox to serve an Air Force base that is completely within Tucson. This also is billed as a first local service. The application admits that the new station would serve 813,000 people, quite a large number of military personnel.

If the FCC accepts this nonsense, the next step will be to propose a first local service for Hollywood and claim that it is not served by Los Angeles stations.

Maybe the time has come for the commission to wake up and listen to some of these purported first local services now on the air. In nearly every case, the only service to the community of license is to announce its name each hour. Often there is also a 30-minute public affairs program aired each Sunday morning at 5 a.m. when nobody is listening. All other programming is geared to the big city that the station truly serves.

The FCC should recognize this abuse and no longer grant preferential status to applicants who propose to serve tiny towns that are really part of major markets.

Paul S. Lotsof
Manager
KAVV(FM)
Benson, Ariz.
Charlotte, N.C.

LAB Salutes Giants; We Salute LAB

It's an industry treasure.

The Library of American Broadcasting contains an extensive collection of audio and video recordings, books, pamphlets, scripts and vertical files dedicated to the history of broadcasting. It is located at the University of Maryland. Another broadcast-related collection, the National Public Broadcasting Archives, is at the same institution.

These collections are wonderful resources of our broadcast roots. While we recognize the pure entertainment value, their historic value can't be priced.

The LAB's Westinghouse News Collection, for example, consists mainly of raw feeds from the Washington bureau dating from 1958 to 1982. Other news in the collection is the Associated Press Radio Competition Collection (1967-1968), which contains an extensive sampling of radio journalism from California.

The library's audio holdings, recorded on a variety of formats from early radio transcription discs to CDs, include nearly 1,000 oral histories, interviews and speeches. The Chester Coleman Collection contains convention sessions and meetings of the NAB and the National Radio Brokers Association from the 1970s and 1980s as well as format and production music demonstrations. There are recordings of congressional hearings, political speeches and other media events of the 1960s and '70s in the Daniel Brechner Collection.

The LAB recently paid tribute to what it calls the "First 50 Giants of Broadcasting" with a ceremony in New York.

"It was our good fortune to honor, in person, many of broadcasting's legends," stated Lucille Luongo, president and CEO of the Library of American Broadcasting Foundation. "This event was designed to keep their example before us and to raise awareness of the wonderful repository of broadcast heritage."

Honorees Joan Ganz Cooney, Walter Cronkite, Ragan Henry, Stanley S. Hubbard and Ward Quaal were among those in attendance. The full list of honorees appeared in the Oct. 8 issue of Radio World, page 22.

It is gratifying that such a collection of historic artifacts and recordings has been assembled in one place and that they have been given the importance due them.

— RW

From left: Ramsey L. Woodworth, chair of the LABF; honoree Ward L. Quaal, president of The Ward L. Quaal Co.; Lucille Luongo, president and CEO of the Library of American Broadcasting Foundation; and honoree Ragan Henry, pioneer in the ownership of radio and TV stations by African-Americans.

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GENERATION 9 DIGITAL CONTROL SURFACE

Designed to integrate flawlessly with the Wheatstone BRIDGE digital audio network router, the Generation 9 control surface allows you to easily create large or small platform-based systems that are exceptionally user-friendly and flexible. Wheatstone BRIDGE network cages house all I/O ports and engine cards, and may be wired in tandems within a single equipment room or interconnected to separate remote locations by means of fiberoptic or CAT-5 cables to provide single wire studio integration schemes.

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