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Tune-Up Special

A year-end ratings and promo checklist for station managers.

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Not Just E-Mail Anymore

Radio IT directors talk about how their jobs have evolved.

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The Newspaper for Radio Managers and Engineers

December 6, 2006

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Changed jobs?
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 News editor:
radioworld@imaspub.com

NPR Says Part 15 Problem Is 'Unchecked'

by Leslie Stimson

WASHINGTON NPR doesn't see an improvement in the problem of over-powered wireless FM modulators interfering with the signals of terrestrial stations. In fact, the network believes the issue is becoming worse and has fortified its efforts to persuade the FCC to take steps to remove non-compliant devices from the market, whether that involves a product recall or other action.

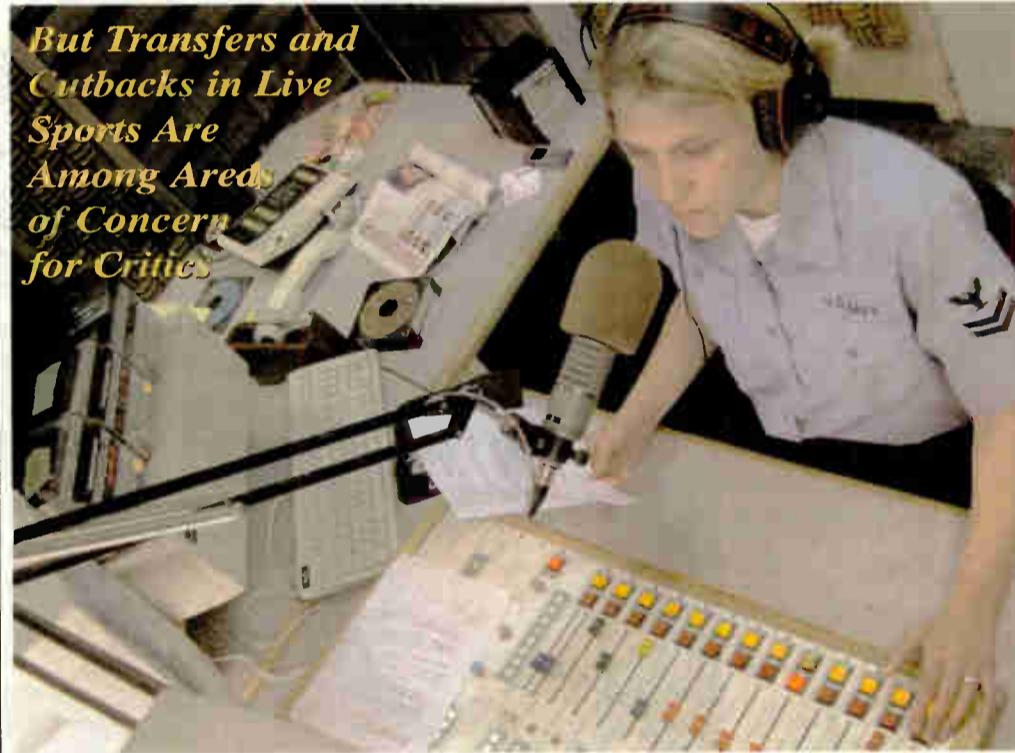
NPR also has called into question how all wireless FM modulators — for satellite radio, iPods or MP3 players for example — are certified and believes the commission should review that process. NPR has urged the agency to freeze certifications for Part 15 devices for companies that knowingly make or sell over-powered devices.

In a letter to FCC Chairman Kevin Martin, NPR CEO Ken Stern said public radio stations nationwide are receiving complaints from listeners about interference from these devices, in what he characterized as an "unchecked, growing

See MODULATORS, page 12 ►

AFN Broadcasts 'Taste of Home'

But Transfers and Cutbacks in Live Sports Are Among Areas of Concern for Critics



by Randy J. Stine

ALEXANDRIA, Va. Research shows that besides a good commissary, nothing is more important to U.S. service members and civilians overseas than hearing news and music from the United States.

But cutbacks in live radio sports programming and the reassignment of personnel at the American Forces Radio and Television Service have resulted in fewer

Mass Communication Specialist Second Class Neah Kelly in the studio at the AFN La Maddalena, Sardinia affiliate serving the U.S. Navy.

listening options.

American Forces Network, the operations arm of AFRTS, distributes a variety of radio programming, ranging from Rush Limbaugh to Ryan Seacrest and "American

See AFN, page 8 ►

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FCC Winnows Allotment, License Rules

WASHINGTON In streamlining its rules governing minor change applications and the FM table of allotments, the FCC hopes to compress a process that used to take years into a few months, and weed out rules that date back to 1963 and are no longer needed.

The company that initially filed a petition asking for many of the adjustments, First Broadcasting, said the "sweeping changes" would make it easier and less expensive for owners to change their community of license and improve their signal quality and coverage.

The commission in November passed several changes concerning the community of license and allotment issues and said it would lift the freeze on new FM allocations on the effective date of the order. The changes become effective 30 days after publication in the Federal Register. The freeze on new FM allocations had been effect since June 2005.

Await 'flood'

Attorney John Crigler of Garvey Schubert Baer predicted the "freeze" would be replaced by "a flood" of FM allotment filings once an application window opens.

Once the order takes effect, AM and FM licensees will be able to request city of license modifications as minor change applications, on a first come-first served basis. The changes compress the current

NEWS

two-step process for requests by eliminating the rulemaking step for FM requests and the auction application step for AM requests.

By requiring applicants to file a technical application (Form 301) and pay a filing fee at the same time as a new FM allotment is sought, the FCC hopes to guarantee those who would actually participate in the auction process would be the same parties that seek new FM allotments. Currently the payment and technical application are made after the initial petition for a new FM allotment is filed.

"Right now, it's possible to game the system by tying up a frequency for years without using the frequency," Crigler said.

Indeed, when the commission sought comment on the issue in June 2005, then-Commissioner Kathleen Abernathy said the agency hoped to solve "what appears

to be a manipulation of our rules."

Electronic filing of petitions and other documents in proceedings to amend the FM Table of Allotments will no longer be banned.

First and other broadcasters had said the FM allotment rules are cumbersome and changes can take years to process.

Not everyone supported the change. In comments on the First petition, Fisher Broadcasting said the change would allow some broadcasters "to strip much-needed local AM and FM channels from communities in smaller, independent advertising markets and move them dozens or hundreds of miles into the core of major rated advertising markets."

First said in November the change would particularly benefit entrepreneurs as well as small and minority station owners.

The FCC normally processes about 75 petitions for rulemaking a year for a community of license modification; about 25 such cases are pending and those licensees will have the option to use the new process, said Audio Division Chief Peter Doyle.

He estimated that a process that used to take about two and a half years could now be completed within about three months.

In voting for the item, Commissioner Robert McDowell said it could have been more de-regulatory, specifically noting the requirement that prohibits the FCC from acting on a minor modification for 60 days after publication in the Federal Register.

The waiting period is to give ample notice to affected parties of a broadcasters' intent to move in or out of a market.

McDowell noted that Federal Register publication is cumbersome and not currently required for minor mods. The FCC has other avenues to inform the public of such changes, he said, including its Consolidated Database System Web site, Daily Digest and in local newspapers.

— Leslie Stimson

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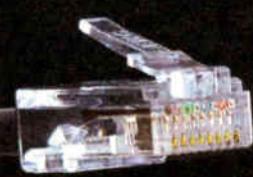


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Birds, Birds, Birds

FCC Tries to Get to the Bottom of Contentious Tower Fatality Issue

by Leslie Stimson

WASHINGTON Do towers cause a significant amount of migratory bird deaths? Depending on the answer, rules governing tower lighting may change to reduce bird mortality rates.

For example, the FCC tentatively has decided that medium-intensity white strobe lights at night are preferred over red obstruction lighting systems, "to the extent possible without compromising aircraft navigation safety," and seeks comment on this and other lighting options.

Other rules concerning tower height, location and the use of guy wires are subject to change as well.

Environmentalists and some Native American tribes claim the towers cause high mortality rates for migratory birds, while broadcasters, telephony companies and those who build, operate and own towers say the figures aren't significant enough to change the commission tower rules.

Various federal agencies have been trying to answer the bird collision question for years, but more formally since 2003.

The FCC commissioned a study to help evaluate the submitted research. Environmental risk firm Avatar submitted recommendations in 2004; it said more studies were needed to identify specific causes and solutions.

The commission seeks additional comment in a Notice of Proposed Rulemaking on measures that might curb bird deaths from tower collisions. The agency received thousands of comments on the migratory bird issue when it released a Notice of Inquiry under former Chairman Michael Powell in 2003, but there was such a difference of opinion that no conclusion could be reached. Therefore, the FCC needs more information, said Catherine Seidel, acting bureau chief of the Wireless Telecommunications Bureau, responding to a reporter's observation that many of the questions the agency is asking in the NPRM have been asked before.

Mortality rates

There has been no clear indication among observers about whether an FCC majority is expected to favor or reject such changes. Chairman Martin said in November, "All concerns need to be balanced as we go forward" on the issue.

In the NPRM, the commission asks whether the scientific evidence is sufficient to demonstrate that communications towers are having a significant impact on migratory birds. During the vote on the item at the FCC public meeting in November, Commissioner Michael Copps quoted a figure from the U.S. Fish and Wildlife Service that perhaps as many as 50 million migratory birds die each year after flying into com-

munications towers.

"We need to make sure our practices do not contribute to the bird deaths," Copps said, yet added that, "We are not faced with an all-or-nothing choice. We understand that communications towers are necessary."

NEWS

migrate at night and are more susceptible to flying into towers obscured by fog, according to the FWS.

The service has told the commission that somewhere between 4 million and 50 million such deaths occur each year. By comparison, it published a report in 2002 that estimated a minimum of 10 billion birds breed in North America and that the population level of migratory birds during the fall could be about 20 billion.

The Wireless Association CTIA and NAB have argued that "even assuming" the FWS figures are correct and that

and believe "existing evidence is insufficient to show that collisions with towers have a significant impact on migratory birds."

Seidel said so far, the groups that submitted comments on the issue, environmental and otherwise, differ on the significance of the figures.

Tower unknowns

The American Bird Conservancy, Forest Conservation Council and Friends of the Earth have told the FCC previously that "reported bird kills represent only the tip of an iceberg as the vast majority of tower sites are never checked for mortality." They also contend that in poor visibility conditions, migratory birds are especially attracted to red steady lights, according to the commission in its NPRM.

Another official from the Wireless Telecommunications Bureau said a previous commenter has suggested that white blinking or strobe lights appear to cause fewer deaths than red steady tower lights, but the commission would like more information to sustain this theory.

While the commission stated its "tentative" preference for medium-intensity white strobe lights, it needs scientific evidence to back the theory; then it would decide whether a tower lighting rule change is warranted. Therefore, the tentative conclusion has not taken effect and may not, depending on the content of the publicly-filed material.

The role in migratory bird collisions of other tower factors — such as tower height, tower location, the use of guy wires and the collocation of new antennas on existing towers — is of interest to the agency. It's asking whether adoption of a preference for medium-intensity white strobe lights might preclude the need for these additional measures, as well as if such measures would negatively affect environmental matters unrelated to migratory birds, such as historic properties, wetlands or endangered species.

Comments on the item (WT Docket 03-187) were to be due 60 days after publication in the Federal Register. ●



Photo by Leslie Stimson

FCC Commissioner Michael Copps, Chairman Kevin Martin and Commissioners Jonathan Adelstein and Robert McDowell explore whether the FCC should change tower rules due to migratory bird deaths.

As of Nov. 2, approximately 104,700 communications towers were registered with the FCC; the total includes existing structures, as well as proposals for new towers or modifying existing structures.

The FWS lists 711 species of migratory birds and estimates that 350 species of non-song birds on the list breed in the United States and Canada and then fly to South America for the winter. Birds such as warblers, thrushes and bobolinks

communications towers cause 5 million bird deaths a year, on the low end of the range, and that there are 10 billion migratory birds nationwide, "communications towers would account for only a 0.05 reduction of the migratory bird population each year."

CTIA, NAB and telephony companies such as AT&T Wireless, Sprint and Cingular have argued that information on bird deaths is "incidental and biased"

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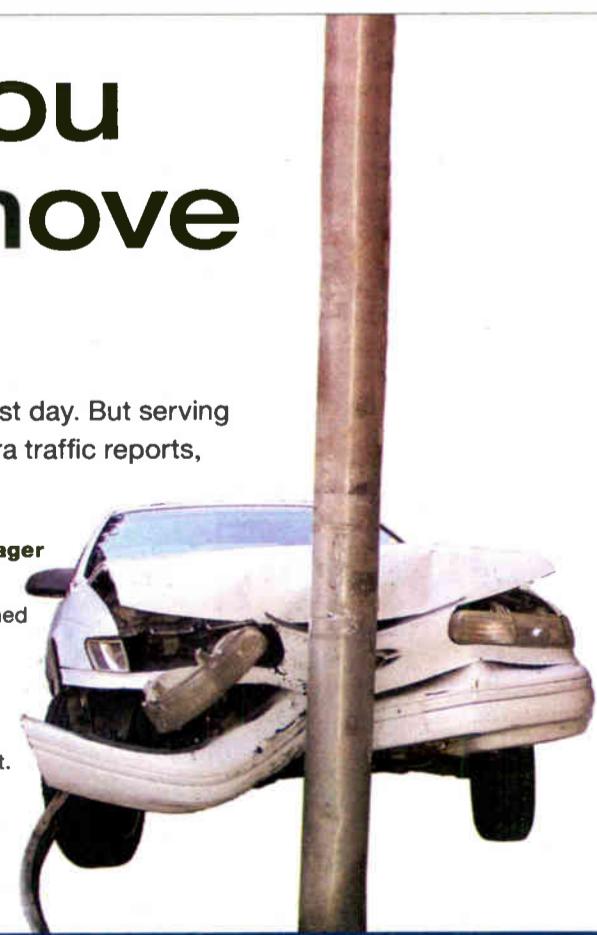
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Cheney Era Ends at Comrex

On Election Day in Middlesex County, Mass., voters in several towns were asked whether the old Fort Devens Army base should incorporate as the state's first new town in 86 years.

Among those standing outside the polling place and holding signs in favor of the initiative was a 63-year-old grandmother who recently retired to Maine but had come back to speak up for taxpayers she feels are disenfranchised.

If you'd gone to the polls that day, you might have done a double-take and realized the woman holding the sign was Lynn Cheney, former president and majority stockholder of Comrex Corp., lending her voice to the community debate.

Cheney has retired from the company she joined in 1974 and helped shape for many years. To me, she represents the best that our broadcast equipment industry has to offer. She is a forthright, capable leader who competed for business vigorously, was always affable with her competitors and has genuine affection for her employees and clients. She contributed to, and then presided over, the growth of a successful — and proudly efficient — equipment manufacturer, through decades that have seen great change in radio and in the company's business model.

Her departure leaves Comrex without a Cheney for the first time since its founding 45 years ago.

Appeals meeting

It had not been her intention to enter a career in broadcast electronics. Lynn Everett studied French at Wellesley when professional opportunities for women were limited. "At the time I went to college, you got married." Her career opportunities included teaching, translation and writing. She wed George Distler and took a job for the Sudbury newspaper, where she was paid by the column inch.

One day, while covering the business of government, she met local appeals board member John Cheney. He had started a company in 1961 making wireless microphones. Business had slowed



Lynn Cheney

by the early 1970s, and he'd been doing mostly consulting work for manufacturing companies including Telex and Magnecord. But the transistor age also had arrived and was giving Comrex new life. John designed a crystal-controlled UHF wireless system that came out just about the time ENG cameras for television hit the market in a big way. This 450 MHz product was a success.

He needed someone to help answer the phones, so he offered journalist Lynn Distler a position working three hours a day, three days a week. He didn't know he was hiring his future wife and business partner.

It was also Lynn's baptism into business. "I remember going home, getting George a martini and asking him, 'What's an account receivable?' I was a French major!"

It didn't take her long to get savvy. She attended the next NAB show, held at the time in Chicago, and hasn't missed one in 31 years. (Exhibitors in that period were unhappy with the way the convention was run, and there was talk of a manufacturers' association. NAB formed an exhibitors' advisory committee to help with communication; Lynn Distler was named to the group. Three decades later

Comrex remains an active voice in exhibitor matters.)

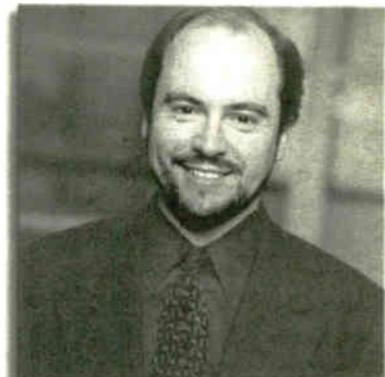
Business extension

Over the years, Lynn came to realize she was receiving a second education. "John was the best teacher I've ever run into. It was the first time I ever productively took the square root of anything. I learned a lot of physics, engineering, the broadcast business. It's very intuitive, it's a logical skill set as to how things work."

"As an example of John's role as a teacher, I remember Tom Hartnett came to us right out of college. He was working at a local station; we weren't particularly looking to hire at the time, but he said he wanted to be a design engineer. He admired our products and he wanted to learn from John. I think we had five employees. I told John, 'If you don't want him as an engineer, I'll take him as a salesman.' Tom's now one of the finest design engineers in the business and he attributes much of his success to being John's protégé."

Comrex soon made its splash in radio with frequency extension, a technology

From the Editor



Paul J. McLane

that allowed delivery of better audio quality over regular phone lines. "That came out of single-sideband technology and phase-shifting the audio up. John also had strong experience in telephony, working for the Army and afterwards. That put us into the whole telephone business, and that's what we're still doing: sending high-quality audio on readily available communications circuits, even today with IP products."

This direction took the company through multi-line frequency extension products, to ISDN codecs, then to POTS

See CHENEY, page 5 ►



Kris Bobo, right, leads a company retirement party for Lynn Cheney.

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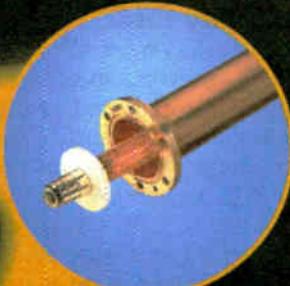
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Old Media and the New Generation

Media Ownership Docket Is Big, Though Many Comments Are Imitative Filings

WASHINGTON Approximately 130,000 new public comments have been filed to the FCC on the media ownership issue. These were filed from June, when the commission re-opened the proceeding, to Oct. 23, the initial comment deadline. Reply comments are due Dec. 21.

The agency is reviewing three rules that affect radio: local ownership limits, radio-newspaper cross-ownership and the radio market definition. It also plans to consider comments from the localism proceeding and include those in the ownership proceeding.

Cheney

► Continued from page 4
codecs in the late 1990s with its Hotline product. "Technology has changed dramatically. It used to be every 10 years I'd see Comrex reinvent itself; now it's more like every five years."

She expects that trend to continue. "Every time we turn around the communications world has changed." Switched networks will continue to migrate. "ISDN will be the first thing to go; then practically all of telephony will be on an IP-based platform. That's where we've been putting our money and time, resulting in the Access."

She says proudly that the company has always been managed collaboratively. "John was not a dictator. I remember one time when I was trying to put our inventory on computer. I think the Apple IIe was state-of-the-art; and I got a microprocessor-based manufacturing package online, a Unix system. I came back from a trip to Cleveland to learn about it and I said, 'Do you realize you use 25 kinds of 10-microfarad capacitors? Settle on one!' Nobody here wears one hat." Similarly, it was Peter Burk, then a Comrex employee, who urged the firm to move from direct sales to a dealer distribution structure.

Cheney says the character of the radio equipment sales community has changed over her time.

"I love my colleagues, by and large. We're a group of honorable, interesting companies. That being said, there's been an awful lot of amalgamation; and sometimes some of the players get lost in the process. I miss Roy Ridge's Allied Equipment. It's just not the same company; and there are other companies in that situation. I don't know how productive it is for a small manufacturer to be subsumed by a larger firm."

Employee-owned

She looks back fondly on the friends she's made in equipment sales who have served as sounding boards. She mentions Jack Williams of PR&E and his family, and Tim Schwieger of BSW.

"It's a good business. It's also become much more internationalized — though I think unlike other industries, the U.S. manufacturers still have the edge. This is where radio was born, and the international world knows that and sees that."

George Distler, still a young man, died in 1981. Lynn would eventually marry John Cheney and continue to grow in her role as manager, learning from John and

A spot-check by *Radio World* found that many of the comments opposing relaxation of the rules contain the same or slightly modified text from an e-mail petition sponsored by the Consumers Union on its Web site: hearusnow.org.

Here, we excerpt some of the initial comments. NAB's comments were excerpted last issue.

CBS Corp., New York:

Four years ago, when the FCC last reviewed its broadcast ownership rules, the "YouTube.com" domain name had

what she describes as his "passion" for creating a well-run manufacturing organization.

When John died in 1998, Lynn, twice widowed but vigorous in her mid-50s, became president. She moved quickly to round up shares held outside the business and launched an employee stock ownership plan.

"I don't believe that privately held companies of our size should have outside shareholders; I believe in the value of having the people who work in the company own the company." Comrex is now employee-owned and is managed by majority shareholders Kris Bobo and Tom Hartnett, who have been much involved in decision-making. Cheney remains on the board and consults.

"I'm available as long as I'm of use, but at this point Kris and Tom are fully capable of running the company, and are."

She's going to have a hard time cutting herself loose completely, though. "I've been in it so long now, it's been in my blood. I love the business and the people in it." She expects to attend NAB in the spring; she recently visited community station WERU(FM) in Blue Hill, Maine, and offered her technical expertise.

"It's been satisfying to keep on learning. It's my one fear in retirement. Comrex has always been challenging to me personally, and I'd like to keep that kind of challenge in my life." Not that she's found herself wondering what to do. She enjoys the outdoors and lives 40 minutes from Maine's Acadia National Park. At her going-away party, Comrex employees presented her with a model of a full-size kayak that is being custom-built for her. She gardens and spends time with her daughters and grandchildren.

She also still has an interest in the Fort Devens debate. Comrex moved four years ago to a building it had purchased on the grounds of the old Army facility. Cheney has served on a committee to decide the future of the property, which has become a business magnet but is split among three jurisdictions. Its future remains uncertain.

I asked Lynn to straighten me out on how to write her name. At Comrex she was Lynn Distler at first, and that is how many folks still know her. But to help keep her government paperwork straight, she recently settled officially on Lynn Cheney. "Here in liberal Massachusetts I introduce myself as 'Lynn-Cheney-not-wife-of-Dick.' Even Wellesley gets me confused; they once wrote me a letter congratulating me on an article I'd written called 'The Decline of the Dutiful Wife.'

"No, that wasn't me!"

not even been registered, the first Windows version of the audio iPod was just rolling out, Google was only a search engine, cable companies sold primarily video packages and telephone companies sold primarily voice services. ...

(J)ust four years later, Google is preparing to acquire the eighteen-month old video-sharing Web site YouTube for more than \$1.65 billion (which will increase Google's market capitalization by less than 2 percent), Apple has had its fifth-generation video iPod on the market for

Even in the three years since the 2003 Media Ownership Order, the variety of new media alternatives has expanded dramatically. For example, after many years of staggering growth, the Internet has continued to expand at an exponential rate and is now poised to become the universal medium of information and entertainment. The number of Web pages indexed by Google is now understood to be over 23 billion — an expansion of 537 percent since early 2004. Indeed, the market capitalization of Google and Yahoo is more than that of the top 20 local television, radio and newspaper companies combined. ...

With respect to audio, subscription to

No other competitor in the media market has been so hobbled, for so long, by government regulations as the broadcaster.

— CBS

more than a year, and cable and telephone companies now sell packages of video, voice, broadband and wireless services. ...

In its 2003 Media Ownership Order, the commission made, for the first time in years, important but balanced revisions to these rules — moderately loosening certain limits, retaining some unchanged, and effectively tightening others. But due to the Third Circuit's decision on appeal from that Order, even these modest deregulatory steps remain unimplemented. ...

the XM and Sirius satellite radio services expanded by 1,351 percent in just the last three years. And the number of listeners to these services is expected to reach 35 million by the end of the year 2010.

In addition, one in five adults between the ages of 18 and 34 now listen to Internet radio each week, and weekly Internet radio audiences increased by 50 percent between January 2005 and January 2006 alone. More than 6 percent

See OWNERSHIP, page 6 ►

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NEWS

Ownership

► Continued from page 5
 of online users, or 9.2 million people, have downloaded a podcast, a relatively new audio download system that did not even exist until 2004. Since then, iPods and MP3 players have been transformed from a novelty to a commonplace accessory in modern American culture. ...

No other competitor in the media market has been so hobbled, for so long, by government regulations as the broadcaster. ...

The historic contributions of broadcasters, and those that their future holds, must be included in the regulatory equation here.

Michael Silence, Bellevue, Wash.:

The ongoing consolidation of media

into fewer and fewer hands is one of the greatest threats to our hopes for democracy in this country. I strongly urge you to ignore the opportunity to work for a media corporation after you leave the FCC and oppose rules allowing concentration of ownership of newspapers, radio stations, etc. Your recent efforts to pass this failed but I am sure it will come up again. Don't do it.

Lynne Banta, Los Angeles:

Don't cover up the facts. The FCC needs to make all relevant information available to the public — including the local news study that was reportedly destroyed — as part of its current media ownership proceeding. The FCC also needs to conduct a thorough investigation of how the local news study was suppressed and who was responsible.

The results of that investigation should be released to the public immediately upon its completion. In addition, the FCC needs to adopt rules and procedures to prevent such important information from being kept from the public in the future.

I don't want the same company that owns my TV station or my radio station to also own my newspaper. I would just get the same news recycled for a different outlet.

I rely on my local media sources to find out about national and local issues. And I want to feel confident that I can get all the viewpoints I need to make well-reasoned decisions about these issues.

Clear Channel Radio, San Antonio:

Today, 10 years after Congress directed increases in the local radio ownership caps, local radio markets of all sizes across the nation are vibrantly competi-

tive, and the radio industry is far less concentrated than nearly every other communications industry segment. More significantly, free, over-the-air radio also now faces substantial and ever-increasing competition from a dizzying array of alternative platforms.

A decade ago, Congress could not even have imagined the emergence of many of these platforms, several of which were only on the horizon in 2003, and none of which ever have been or are today subject to any form of government-imposed limitations on the number of outlets that can be owned in a local market.

The country's two satellite radio operators — XM and Sirius — can therefore provide listeners with more than 270 channels of programming in every local market across the country.

In 1996, it was not at all clear that satellite radio would ever become a real competitor to terrestrial radio broadcasting, and the technology had less than a

The ongoing consolidation of media ... is one of the greatest threats to our hopes for democracy in this country.

— Michael Silence

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Digital Audio Systems - Digital Logging - Internet Radio - HD



million subscribers when the FCC issued the 2003 Order. Today, in stark contrast, satellite radio boasts over 11 million subscribers, having experienced a staggering increase of over 1,000 percent in subscribership in just three years.

Congress could not even have imagined in 1996 that nearly 67 million Americans would own iPods and other MP3 players that can be used to listen to music programming, or that 27 million would listen to "podcasts" on those devices, because those devices did not even exist a decade ago. They, like satellite radio, also were in their infancy the last time the FCC visited the question of whether the local radio ownership rule should be relaxed in 2003.

Moreover, while Congress may have been able to envision the day when people might listen to music over the Internet, or through music channels on subscription-based cable, DBS or IPTV platforms, the popularity of these services has far surpassed the level that anyone would have expected them to achieve either when Congress first directed relaxation of the local radio ownership limits in 1996, or when the FCC last considered whether those limits remained necessary in their current form in 2003.

Congress in 1996 also could not have foreseen that Wi-Max technology would eventually allow people to listen to Internet-delivered audio programming on the go, and Wi-Max was only beginning to emerge in 2003. And there is, of course, no limit on the number of sources of downloadable audio programming — for MP3 players, direct listening over the Internet, or mobile listening via Wi-Max — that a single entity may own, nor is

See OWNERSHIP, page 8 ►

Internet remotes... there's been talk.



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→ Radio Free Asia—Live from the Himalayas



"The results [with ACCESS] were especially reliable considering that Dharamsala has one of most "problematic" Internet infrastructures that we have come across." — David Baden, Chief Technology Officer Radio Free Asia

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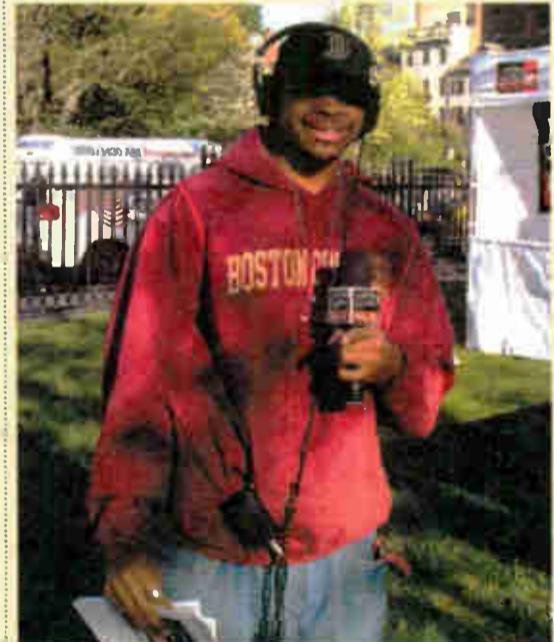
→ Ski Mountain Remote



This picture, really demonstrates what ACCESS is about. This product truly has the ability to cut the wires.

For the complete story visit
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→ JAMN 94.5—Walk for Hunger



"ACCESS was used on the air exclusively for JAMN945 at this one. It was all over EVDO with a tremendous amount of active cell phones in the area. The ACCESS was connected to the Verizon wireless Broadband..."

For the complete story visit
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Put Comrex On The Line.

AFN

► Continued from page 1

Top 40" to approximately 33 affiliates around the world from its broadcast center at March Air Reserve Base in Riverside, Calif. It reaches more than 1.5 million potential listeners each week.

The AFN broadcast center is making an effort to move in a more automated direction, said Larry Sichter, AFN chief of affiliate relations, as a result of position cuts over several years.

"The military has been reassigning some of their people, moving them out of support



The Network Operations Center is the heart of AFN. Operators in Mannheim and at a similar facility in Vicenza, Italy monitor the signals and manage the insertion of European-interest spots and news for 40 radio and 10 TV channels.

activity and more into combat support positions. Therefore we have experienced some cuts on the radio side," Sichter said.

Sichter said there are now seven military employees working in AFN's radio department in Riverside, down approximately one-third from staffing levels earlier this year.

Less sports

Those changes partly explain AFN's decision not to air the 2006 World Series, Sichter said, a decision that ended a tradition of carrying the World Series since 1947.

"Our surveys showed that fewer and fewer people are listening to sports broad-

casts on the radio. To no one's surprise, they indicated they prefer watching the games on TV, which is available to nearly 90 percent of those who can receive the radio broadcasts," Sichter said. "Additionally, we were limited in manpower to run those games out of the broadcast center." However, AFN will still broadcast the NFL Super Bowl on AFN radio, he said.

AFN uses proprietary Nielsen Media Research to assist in determining stateside audience preferences, Sichter said, and occasionally conducts worldwide audience surveys.

In all, AFN produces 10 general-use radio streams, including seven music chan-

nels. The newest music channel is AFN, "The Eagle," modeled after the "Jack" format, AFRTS officials say.

Radio programming is uplinked from the broadcast center in California for distribution to 56 countries in Europe, western Asia, the Middle East, Scandinavia, northern Africa and other affiliates broadcasting on AM and FM terrestrial analog frequencies. Most often, the programming is then customized by inserting local command information, Sichter said.

"There's AFN Europe, AFN Korea, AFN Iraq, AFN Tokyo and so on. We feed the affiliates with programming we acquire here in the States. For instance, the music channels are provided by ABC Radio and

common ownership will not cause any competitive harm ...

At the very least, the substantial changes in the media marketplace that have occurred in the last decade, the benefits that have been shown to flow from increased levels of common ownership and the absence of any risk of competitive harm, warrant relaxation of the local radio ownership caps. If nothing else, the FCC should raise the current caps to allow a single entity to own at least 10 stations in the nine markets with between 60 and 74 stations, and at least 12 stations in the eight markets with 75 or more stations. ...

Any local limits that the FCC does retain should, moreover, be based on the number of outlets owned rather than market or revenue share — as Congress made clear in the 1996 Act and as the realities of the radio broadcasting industry require — and should not include separate caps on the ownership of AM and FM properties. ...

File reply comments until Dec. 21 by going to NAB's Web Site (www.nab.org) and click on the Media Ownership button for MB Docket 06-121.

NEWS



Westwood One," Sichter said. "Local affiliates then insert local news and information to customize the service. Radio is a local medium and it should be that way."

Any cutback in radio programming service for U.S. military personnel and Department of Defense civilians is unwelcome news, said Ann Mulligan, director of broadcasting for AFN Europe, which broadcasts across Germany and Italy. "We don't like to lose coverage of anything. However, we realize because of circumstances we have to do more with less at times," Mulligan said.

AFN Europe, headquartered in Mannheim, Germany, and with a regional



AFN Europe's Tactical Mobile Radio and Television van operates during a military exercise between U.S. and Bulgarian troops in Bulgaria in July. AFN received a frequency to broadcast local news and commander information to the troops in the field who were given small radios to receive the feed.

office in Vicenza, Italy, selects from approximately 40 audio channels to program its two services, Power Network and AFN, The Eagle. Power Network consists of news and information, including offerings from National Public Radio and nationally syndicated radio talk shows.

Local command information, which could include anything from a base closing its gate early for the day to a mess hall changing operation hours, is what gives the two networks a "hometown station" sound, Mulligan said.

AFN Europe is a satellite-based operation, downlinking programming from the Riverside broadcast facility and inserting command information from 11 radio stations in Germany, Italy and Belgium, received via a wide-area network.

"We then uplink the finished program from Mannheim and downlink to dishes at transmitter sites, which transmit via AM and FM on assigned frequencies," Mulligan said.

AFN Europe, which is staffed with Army, Navy, Air Force and Marine personnel, operates broadcast stations that are a mix of high- and low-power signals in cities like Heidelberg, Germany and Naples, Italy.

Most of the AFN Europe affiliates, which operate from U.S. military bases, have been upgraded in the past several years to include Audioarts RD-12 digital radio consoles and Broadcast Electronics AudioVault servers and automation software.

Podcasts of various programming are

now available from the AFN Europe Web site at www.afneurope.net, Mulligan said.

In Europe, the AFN is operated by the U.S. Army and can trace its origins to 1943 when the War Department established the Armed Forces Radio Service. The mission of AFN Europe is to provide news, entertainment and command information, Mulligan said.

"We feel like we are making a difference in the quality of life for service personnel and their families. Without us, there would be a near cutoff of information from the United States. It would be tough to live in a foreign country without it," Mulligan said.

Other AFN regions have similar mission statements and are operated by the various branches of the United States military.

DoD

AFRTS is an operating element of the American Forces Information Service, a unit of the United States Department of Defense. AFRTS has a \$50 million annual

Ownership

► Continued from page 6

there any limit on the number of subscription-based cable or DBS music channels that a single entity may program.

Terrestrial radio broadcasters, by contrast, remain shackled by restrictions on the number of radio stations that they can own in a local market that have not kept pace with the competitive changes that the marketplace has undergone. ...

What is more, and as the record before the FCC in 2003 clearly established and as further shown in these comments, the manner in which local radio advertising markets function renders the risk of anti-competitive behavior virtually nonexistent, and any such behavior that nevertheless might occur could easily be remedied by a wide variety of federal and state antitrust enforcement mechanisms. Thus, [it is] clear that marketplace developments have rendered the current local radio ownership caps entirely unnecessary in light of competition, and that allowing higher levels of

operations budget, according to Andreas Friedrich, deputy director of AFRTS.

"A huge slice of our budget, nearly 50 percent, goes to funding the use of nine domestic and international satellite transponders, numerous fiber connections and associated downlink and uplink services," Friedrich said.

AFRTS funding can vary each fiscal year, Friedrich said, depending on appropriations approved by Congress in the yearly defense budget. The AFRTS 2007 budget is the same as 2006 except for an adjustment of 2.7 percent for inflation.

The AFRTS is a means to communicate U.S. Department of Defense policies, priorities, programs, goals and initiatives, according to the AFRTS Web site. However, there are critics who call the service a propaganda arm of the Department of Defense.

AFN Radio was criticized in 2005 when it initially refused to carry progressive talk show host Ed Schultz. After pressure from Democrats in Congress, officials later added the Schultz show to its weekday lineup.

"We do not censor," said Sichter. "AFN disseminates DoD internal information to a Department of Defense audience."

A Department of Defense directive calls for political programming on AFN Radio characterized by fairness and balance and news programming guided by a principle of fairness.

AFN Radio carries a wide range of conservative talk show hosts, including Rush Limbaugh and Dr. Laura Schlessinger, Sichter said.

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◆ NEWS WATCH ◆

New Committee Agenda Predicted After Election Upset

WASHINGTON Lawmakers on Capitol Hill will make their committee membership and chair selections known this month as Congress reconvenes for a lame duck session.

Lobbyists pondered what post-election changes would mean for pending legislation affecting radio, now that Democrats will control the agenda in both houses of Congress.

In a research note, analyst Victor Miller of Bear Stearns said the developments "are not encouraging" regarding the pending relation of the media ownership rules by the FCC. He thinks Democrats will hold more hearings and be "more vocal in the disapproval of any proposed changes."

And while a GOP majority remains at the FCC, it will now be caught between answering to two masters: a Republican president and a Democratic-controlled Congress.

Presumably sensing the change in the regulatory environment, the NAB Radio Board passed a resolution in November urging the commission to act on the pending final authorization for IBOC, noting a Further NPRM had been pending for 31

months.

Although new members of Congress were elected in November, their terms have not yet begun.

New members and remaining lawmakers switching committee assignments assume their new roles in January.

Committee chairmanships will change in the House and the Senate now that the mid-term election results are final. Democrats John Dingell of Michigan and Ed Markey of Massachusetts will likely take over the House Commerce Committee and Telecom and Internet Subcommittee, respectively. They replace Republican Reps. Joe Barton of Texas and Fred Upton of Michigan in those roles. Both lawmak-

ers chaired those committees before the Republican congressional takeover in 1995, although back then the subcommittee was called "Communications."

The committee will likely lose several members, including Democrat Rep. Sherrod Brown of Ohio, who unseated GOP Sen. Mike DeWine in that state.

In the Senate, the chairmanship of the Commerce Committee would likely go to Ranking Democrat Daniel Inouye of Hawaii. He co-chairs the committee now with Republican Ted Stevens of Alaska; they are said to be close friends and lobbyists believe the sharing arrangement will be continued.

At least two GOP committee members lost races in November: Conrad Burns of Montana and George Allen of Virginia.

Arbitron: e-Diary Set For January Debut

NEW YORK Starting with the Winter 2007 survey that begins Jan. 11, Arbitron radio diary-keepers will have the option to use an Internet-based, electronic diary in place of the standard paper survey.

Arbitron hopes to increase survey participation by younger adults with the eDiary.

In previous eDiary tests, Arbitron said at least one out of every 20 survey participants chose the Internet-based option. Of that 20, the largest group of diary keepers was between ages 25–34. That compares to a 45–54 demographic for the paper diary.

Media Audit, Ipsos to Begin Encoder Install

HOUSTON Meanwhile, Arbitron rival The Media Audit and Ipsos plan to install encoders in Houston stations this month to test their electronic measurement system. They say the test is critical in the introduction of The Media Audit/Ipsos' electronic audience measurement system, which is competing with the Arbitron Portable People Meter as radio eyes future measurement.

They note their news broke five weeks after Arbitron filed a lawsuit naming the firms for alleged patent infringement.

Brazil HD-R Alliance Now Formalized

COLUMBIA, Md. Brazil's HD Radio Alliance has grown to include 16 stations that are transmitting IBOC signals in addition to analog, to a coverage area that includes a potential 30 million listeners.

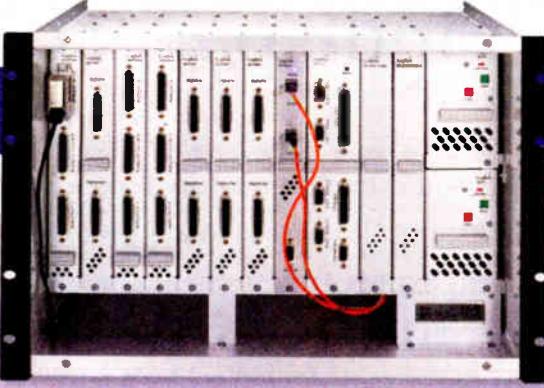
The Brazilian Alliance for Digital Radio consists of several major broadcast groups. Coordinator of the Brazilian Alliance for Digital Radio Acácio Costa said the time was right to establish an alliance for broadcasters to share experiences and work on promoting the technology.

Close to 2,500 stations will support the alliance, said Costa; the alliance also is working with receiver manufacturers to support their product development and entry into the market.

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Modulators

► Continued from page 1
problem."

The complaints are especially prevalent for stations in areas where the most common default for the modulators is 88.1 MHz.

'Objectionable interference'

In a spot check of consumer electronic advisements in a November issue of the Washington Post, Radio World found that several stores, including Best Buy and Target, displayed a photo of the same Apple iPod Nano, showing it 88.1 MHz displayed on the wireless FM modulator.

Stern wrote, "Unlawful modulators pose a substantial risk of objectionable interference and have contributed to a corresponding, unacceptable degradation of the audio quality of public radio stations."

Referring to a study of wireless FM modulators conducted by NPR Labs this summer, Stern described the findings as alarming. NPR said the study showed more than 30 percent of observed devices tuned to two frequencies on three commuter routes in the Washington area were operating above Part 15 power limits.

About NPR's specific request and the overpowered FM modulator issue in general, FCC spokesman Clyde Ensslin would only say, "This matter is under review."

Consumer Electronics Association

spokeswoman Meghan Henning said the organization, which represents companies that make and sell the devices, made members aware of the issue when NAB released a study of the devices this summer. "XM and Sirius had their FM modulators redesigned and re-certified," by the FCC, she said.

Since then, CEA has been working with the agency on the issue, she said.

CEA would support a "rational and reasonable approach of ensuring compliance on an ongoing basis rather than recalling products already in the retail chain," Henning said. It would oppose a recall, she said, adding that a published account in the Baltimore Sun reporting the opposite was inaccurate.

Contacted for comment, a Sirius spokesman said the company has said all it intends to say about the issue in its public filings.

It was in such a public filing to the SEC earlier this year that the satcaster said, and RW reported, that two employees knowingly had manufacturers built over-powered devices.

The proposed moratorium on Part 15 certifications or re-certifications to which Stern referred in his letter cited "any organization that has knowingly participated in the commissioning, manufacture, sale or distribution of over-powered, noncompliant FM modulators, whether intended for use with satellite radios, flashplayers or standalone devices."

NPR Vice President and Chief

NEWS

Technology Officer Mike Starling, who is also executive director of NPR Labs, said that portion of the letter was not aimed specifically at Sirius.

Indeed, he said Sirius designed an update to the certification program for installers of mobile CE devices that lays out the steps to take to find unused frequencies in a market.

He and other broadcast and consumer electronics engineers commenting for this story said the ultimate solution is for manufacturers to move away from plug-in wireless devices to wired products.

XM seems to be moving in this direction with its new SureConnect plug-and-play tuners, designed for self-installation and due to arrive on store shelves this month. They are the Audiovox Xpress, DelphiRoadyXT, XM Sportscaster and SkyFi3.

The SureConnect car kit sends the FM signal over a wire that clamps onto the car's mast antenna or onto a car's in-glass antenna.

XM President/COO Nate Davis, in response to a question from an analyst about the FM modulator issue during a recent financial conference call, said that XM believes professional installation "is the better way to go" with "less chance of a problem," but that SureConnect gives the consumer a quality approach to installation.

One consumer electronics source indicated that car companies are planning to provide more ways to get audio devices into in-dash radios, providing an "aux" port in the back of the head unit and a stereo jack in the front, eliminating the need to plug a device into the cigarette lighter. The recent announcement by several U.S. automakers about providing ways to connect iPods to the car's audio system is another move in that direction, experts believe.

While both XM and Sirius addressed the issue of overpowered FM modulators with re-designs, the fixes don't affect their older devices and those made by other manufacturers and purchased by consumers.

Consumer electronics sources said a recall would be disruptive to consumers and expensive for manufacturers. It would

be relatively easy to track modulators for satellite radio, said one source, because those devices have registration numbers on the box. The story is different for other FM modulators. A retail chain may have information on only a small percentage of the consumers who purchased the device, and only if the buyers chose to register that purchase with the company.

Replacing stock before it hits the store shelf is much less expensive than getting consumers to send hardware back to a manufacturer and have it replaced, CE sources agreed.

Rigor

The overpowered FM modulator issue goes beyond satellite radio to iPods and MP3 players, "raising the specter of a more widespread problem," said Mike Riksen, NPR's vice president of government relations. NPR believes this "raises fundamental issues concerning the trustworthiness and rigor applied to type-certification submissions," Stern wrote in the letter.

To receive FCC certification, manufacturers must send information to the commission that shows their devices meet certification standards. Companies can conduct tests themselves or have the tests conducted by third-party labs.

Manufacturers like the current certification procedure because it removes the process from a development cycle and doesn't delay products in reaching market, said one consumer electronics source said.

However, if companies don't act in good faith, "those instances should be rooted out and pursued," Riksen said. Regardless of whether companies that are violating the Part 15 emission limits are lying or ignorant of the rules when they submit test information for certification, he said, "some don't know or don't care. That's unacceptable."

The penalties for selling overpowered devices range from a recall to a fine of \$11,000 per violation or per day with a cap of \$97,500.

NPR executives said they would follow up with the FCC after sending the letter and were still discussing their next steps internally.

NEWS WATCH

Circuit City Now Selling HD Radios

ORLANDO, Fla. The HD Digital Radio Alliance began airing new HD Radio ads to promote HD digital radio products in Circuit City stores in 10 markets and online. The alliance is advertising Web-site availability in 58 additional markets.

Circuit City has joined the stable of digital radio retailers with stores selling HD-R product in 10 markets and RadioShack is expanding its rollout to some 2,500 stores in new markets.

JVC has dropped the price of its in-dash, automotive receiver price to \$199 and up to \$50 in rebates are now available for select receiver models. With the rebate, the retail price of the JVC unit drops to \$149.

Other alliance partners promoted in the campaign include Amazon, Cambridge SoundWorks, which recently launched two new HD radio models, Crutchfield, Tweeter and JVC.

Retailers and manufacturers will collaborate with the alliance on additional marketing efforts that include print

advertising, catalogue inclusion and online and in-store campaigns.

DOJ Ends Entercom Probe

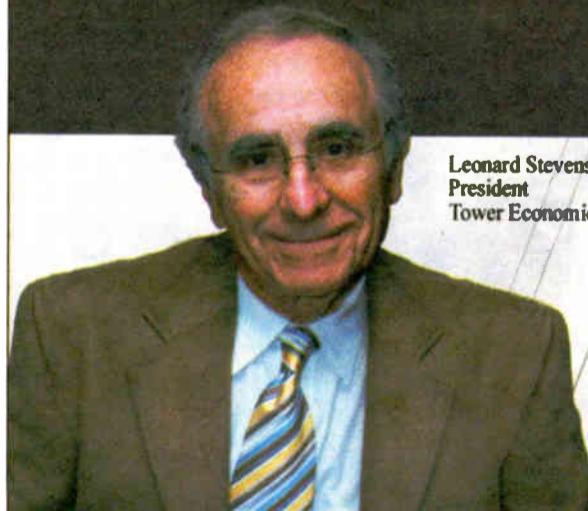
BALA CYNWYD, Pa. Entercom plans to sell three Rochester, N.Y. stations to comply with FCC ownership limits now that the Department of Justice has ended its antitrust review of Entercom's CBS station purchase in that market.

The DOJ was looking into Entercom's proposed \$262 million buy of 15 radio stations from CBS in Austin, Texas; Cincinnati; Memphis, Tenn.; and Rochester, N.Y. The Rochester portion of the deal drew particular DOJ focus because Entercom already owns four radio stations — one AM and three FM — and would acquire four additional FMs from CBS.

If Entercom kept all eight Rochester stations, it would control more than 57 percent of the radio ad revenue in the market. The DOJ determined that the sale would reduce Entercom's post-transaction share of Rochester radio advertising revenues to about 40 percent, and it ended its antitrust probe.

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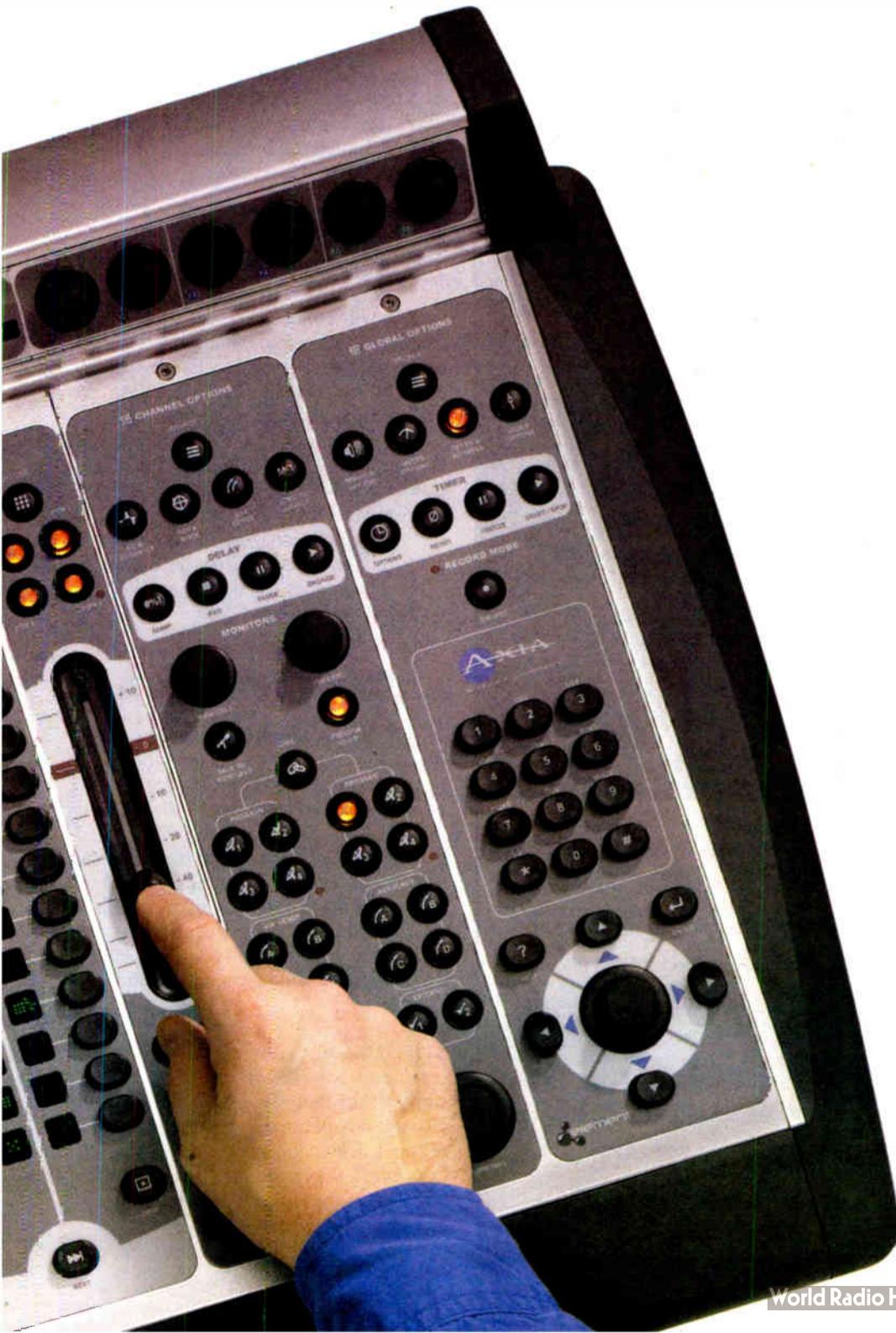
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DIGITAL NEWS

NEWS

XM Looks to Grow

WASHINGTON XM Satellite Radio still says it is on track to achieve positive cash flow from operations this year as it ends its fifth year.

"When we launched, there were no XM radios in cars. Now, there are 5 million vehicles on the road with factory-installed XM. Now we need to fully exploit our models as we continue to grow," said XM CEO Hugh Panero.

That's a tall order, he said; the company success is challenged "from competing interests that don't want us to grow and compete," presumably referring to record labels and broadcasters.

Reporting third-quarter financials, the

satcaster said revenue was up 57 percent compared to Q3 in 2005 to \$240 million. Net loss was down 36 percent to \$84 million compared to the quarter a year ago. The satcaster has about 7.2 million subscribers.

Company executives say they need to do a better job of reminding consumers to buy their products. XM plans to move from subsidies for new products to offering discounts on longer-term service plans.

"We've been discounting radios and asking consumers to sign up for three months," said XM President/COO Nate Davis. Now XM might give a discount to customers who sign up for two or three years, he said.

XM expects more sales to come from OEM and less from aftermarket retail. Davis said retail sales would still grow in 2008 and '09, but probably not at the rate of late last year.

Responding to an analyst question about

retail parity with Sirius, he said that excluding RadioShack, which has an exclusive relationship with Sirius, XM "is carrying the day" with about a 49 to 50 percent share of retail sales for satellite radio in the last few quarters from places such as Circuit City and Best Buy.

The company is focused on increased marketing, improving the customer experience and making it easier for customers and partners to do business with XM, said Davis.

It hired a new ad agency and rolled out the "On" campaign in various media in October.

Noting that churn has been up the past two quarters, 1.82 percent a month in Q3 compared to 1.40 percent for the same period a year ago, Davis said XM would outsource fewer calls overseas. The company also is making sure its retail demos work

and store shelves are stocked.

For the third quarter, XM's subscriber acquisition cost was \$60 compared to \$53 a year earlier.

Karmazin: Sirius Will Generate \$1B in '07

NEW YORK Sirius Satellite Radio exec Mel Karmazin feels good about where his company is headed, pointing to \$100 million in new revenue generated in the last year, an increased subscriber base and cost reductions. Karmazin told analysts the company could achieve positive cash flow by year-end.

Boasting of satellite radio's draw, he said next year, only Clear Channel and CBS Radio would generate more than the \$1 billion Sirius expects to bring in for 2007 while terrestrial radio will have little growth.

In releasing Q3 figures, the company said total revenue for the third quarter increased 150 percent compared to the same period a year ago, to \$167.1 million.

For the fourth consecutive quarter, Sirius claimed it gained more net subscribers than XM. Karmazin cited what he said was a record 61 percent of all satellite radio net subscriber additions.

The satcaster added about 205,900 net subscribers from its retail channel and roughly 236,500 from its automotive OEM channel in the quarter.

The company posted a net loss of \$162.9 million for Q3; that compares to a net loss of \$180.4 million for the third quarter of 2005. The company ended the quarter with about 5.1 million subscribers.

XM-4 Orbital Testing Slated Soon

XM will conduct in-orbit testing of its fourth satellite before putting it into service once the device is in geostationary orbit. Sea Launch sent the Boeing satellite into geosynchronous transfer orbit Oct. 30.

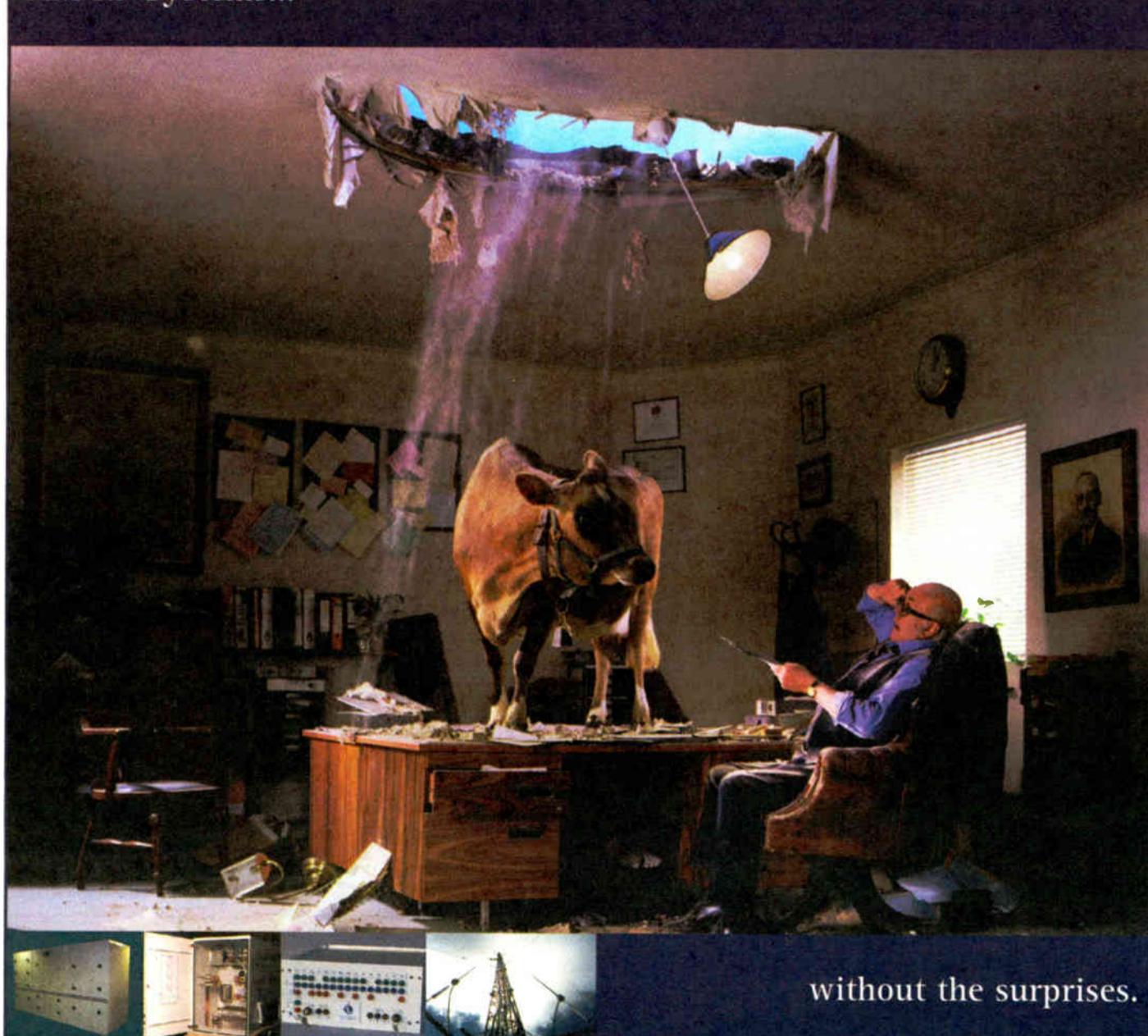
XM-4 replaces two co-located XM satellites and will have 18 kilowatts of total power once it's in its final orbit at 115 degrees West Longitude. Though the satellite is designed to have a 15-year life, XM said the accurate insertion into transfer orbit makes additional fuel available to potentially exceed this figure.

News Roundup

SOUNDEXCHANGE, which collects music royalties, wants satellite companies to pay more. The non-profit representing artists and record labels seeks 10 percent of revenue from XM and Sirius. XM's Hugh Panero called that "preposterous" and said under the current agreement, XM alone would pay over \$100 million over the next six years in royalties. He said XM and Sirius have jointly filed a rate proposal and the issue likely will take until late next year to settle.

SIRIUS shut down 11 terrestrial repeaters and asked the FCC for permission to turn them back on. The 11 were either not operating according to their original designations or built differently than what was applied for under their STA, said Sirius in an FCC filing.

— Leslie Stimson

AM RF Systems...

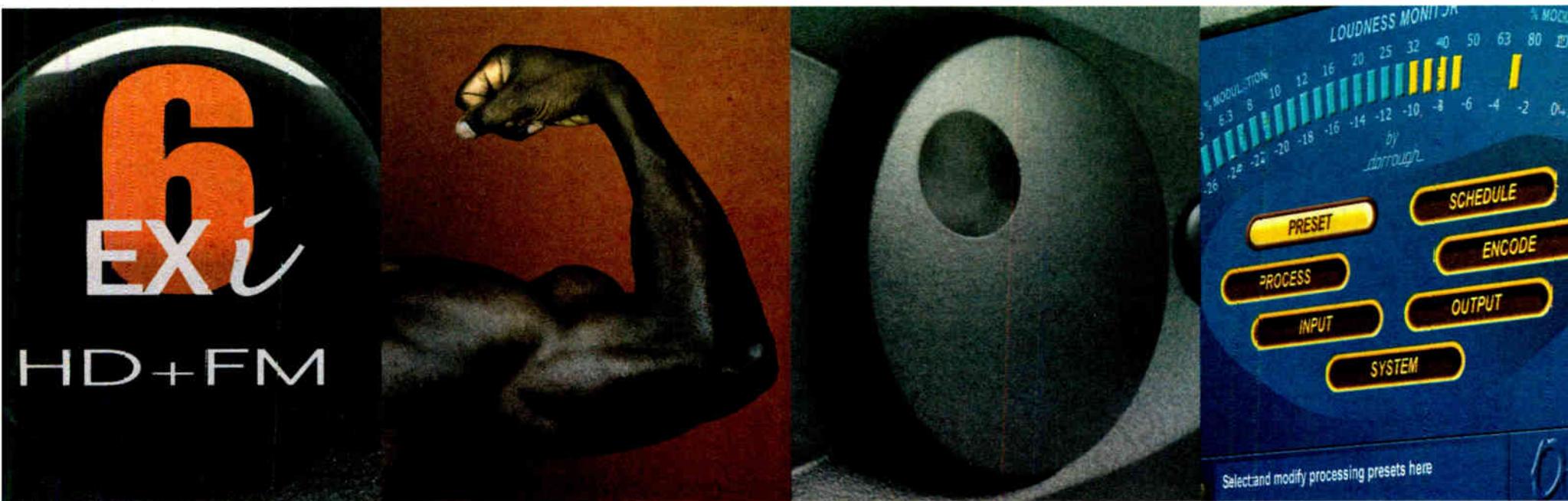
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Omnia 6EXi

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Omnia-6 is the standard by which all other processors are measured. In the last few years, thousands of leading stations in the world's top markets have upgraded to Omnia. In fact, Omnia-6 has been so successful that some competitors have just given up; others are mere shadows of their former selves.

So why do broadcasters love Omnia-6? The sound. The clean, pure, crystal-clear sound (bone-shakingly loud, if you want) that's become the choice of #1-rated stations in New York, Los Angeles, Tokyo, Paris, London, Rome, Sydney and Beijing. The other guys tried to match its winning sound... and failed. So they've settled instead for trying to copy its innovative features.



Features that Omnia pioneered — like dual, simultaneous processing paths for HD Radio™ and conventional FM at no extra cost. The world's first non-aliasing digital clipping system, with composite clipping for the ultimate in competitive loudness. The high-precision Multi-Band Look-Ahead Limiter (invented by Omnia) for perfect HD Radio processing. The six-band limiter for conventional FM, with adjustable crossovers for surgically-precise control over your signature sound. An integrated Dorrough™ Loudness Meter. And of course, the groundbreaking 96 kHz, 24-bit platform that delivers full 20 kHz bandwidth for HD Radio broadcasts. Always innovating.

Which is why the new Omnia-6-EXi makes perfect sense. With integral **HD Radio Diversity Delay** that helps digital broadcasters eliminate analog connections to the HD exciter, ensuring independent analog and digital program streams. And the exclusive new **LoIMD Clipper** that actually **suppresses intermodulation distortion** to deliver audio that's cleaner, clearer and more detailed than ever — no matter how aggressive your processing. (If you already own an Omnia-6, don't worry — there's a low-cost upgrade to give your processor full-fledged Omnia-6EXi power.)

A lot of muscle? You bet. No wonder the competition is running scared.

Omnia
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OmniaAudio.com



Radio World, December 6, 2006

Past columns are archived at www.radioworld.com

Keep Tools Dry and Trouble-Free

by John Bisset

Charles "Buc" Fitch is a registered professional consulting engineer who still gets his hands dirty when he's not filing applications at the FCC or writing for RW.

Not long ago, he was troubleshooting an older Moseley STL receiver that was DOA. The problem turned out to be a shorted 10V line. Interestingly, the short didn't blow a fuse or fry any parts. The short was after the current liming resistors, electrically at the top of the zener regulator. The resistors got a little hotter, but that was all.

It seems that the 10-volt distribution wire, a #20 red insulated wire running between sections, had been crimped under the edge of a metal circuit cover. It took a while to find the short, but the fix was simple. Buc redressed the wire so that it wouldn't be crimped again, then covered the little section of cut insulation with some RTV.

Typically, engineers would use electrical tape. But the drawbacks to tape include trying to get the wire completely covered, and the tape peeling off as the adhesive dries out. RTV, room temperature vulcanizer, is great for this sort of fix; it goes on topically, like window caulk, yet dries hard and has high-voltage insulation qualities as marked on the tube.

Buc had a similar problem with a cover short on an FM antenna. The antenna left the factory with one of its two deicer wire legs that expected to see 208 volts shorted to the antenna/tower ground. Unfortunately this problem was discovered after the tower crew had left.

For a short period, they had to put electrical neutral on that shorted-to-ground wire, with 120V on the "good" other side until the climbers returned. Thank goodness there wasn't any severe icing in the interim, as they could only run about half power heat with this arrangement.

Reach Buc at fitchpe@comcast.net.

★ ★ ★

We all keep used parts around to help us in a pinch.

However, scrutinize used RF connectors, especially if pressing them into full-time service.

Fig. 1 is a good example. The spring fingers on this connector have been compressed — so much so that the male inner conductor easily slides into its female sleeve. If connection is made at all, the result will be heating and eventual failure.

Keep in mind that these parts need to fit tight for a good, long-term connection.

★ ★ ★

Fig. 2 is another entry in our "worst-ever" transmitter sites collection, submitted by a contract engineer called in to evaluate the property.

I asked, "Where did you start?" His answer: "With a chain saw." This photo is just one tower of a multi-tower DA — dark, of course!

★ ★ ★



Fig. 1: Scrutinize used RF connectors before putting them to use.



Fig. 2: Trees and towers don't mix. Is it any wonder this site is dark?

Back in the July 20, 2005 *Workbench*, I suggested that you keep several of those little desiccant packages — the ones typically found in the packaging of new shoes or electronic devices — in your toolbox.

Jerry McCarty maintains the distance learning classrooms and a Ku uplink for the University of Michigan; he tried the tip. He adds a caution after more than a year of use: Depending on where the little packet is used, it can fray over a period of time and the little beads will leak out.

Thanks to Murphy or some other reason, the beads

See GEL, page 19 ►

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The 631 is a truly professional, broadcast-quality FM receiver with unique features and excellent specs. Setup is entirely menu-driven from the front panel, with nonvolatile memory for all settings and a tamper lockout. Outputs include variable composite/MPX and balanced program audio, as well as alarm tallies for carrier loss and loss of audio in either or both channels.

Front-panel metering may be scrolled through RF signal level, multipath distortion, MPX and L/R audio levels. A selectable IF bandwidth tames aggressive adjacents, and carrier-loss muting and an overdeviation limiter protect the rebroadcast signal.

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Can a broadcast console have a fan club?

"The more I learned about Axia, the more impressed I became with their routing system and consoles, and how well their network topology was designed. We ordered nine studios, and we love it. Our operators keep raving about how easy things are to operate. Even our listeners tell us how good WOR sounds!"



— Thomas R. Ray III, CPBE, Vice President / Corporate Director of Engineering, Buckley Radio

"We liked Axia consoles so much we installed them in a second studio. Then a third. Then a whole second cluster. And Axia cost about half what some companies wanted us to spend. My colleagues are so impressed, they want Axia consoles in their stations, too!"



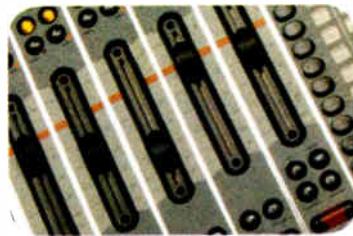
— Jorge Garza, Chief Engineer, Univision Radio, McAllen, Texas

"The announcers tell us how much they love working with the Axia consoles... It's great to be able to setup and save multiple configurations that can be recalled at a moment's notice. I don't know why we hadn't gone this route earlier. Where we're installing new equipment, we're onboard with Axia."



— Owen Martin, Director of Engineering, Newcap Radio, Alberta, Canada

"Axia's Ethernet links are switched connections – no hubs. With guaranteed bandwidth, and some clever clocking mechanisms, latency simply isn't an issue. With regard to cost, we found a significant difference between Axia and the other options we examined. Going with Axia cut our costs by roughly 33%..."



— Ethan Torrey, Chief of Research & Development, Minnesota Public Radio

"I've worked with lots of equipment in the past 30 years, and Axia is by far the easiest system to install and get up to speed with. There are just a few cables instead of hundreds; the entire installation – with testing – took just one week."



— Rudy Agus, Chief Engineer, Hi-Favor Broadcasting, Los Angeles, California

"The jocks took to the new Axia consoles like fish to water. Show Profiles are their favorite part, because they can all have custom board set-ups. Since the first studio was installed, we've added a new production and interview studio, and we plan on building three more studios. It'll be all Axia, all the way to the transmitter."



— Marc Johnson, Chief Engineer, WEGL-FM, Auburn University, Auburn, Alabama



www.AxiaAudio.com

FIRST PERSON

Early Roots of Seattle's 'Stereo 89'

**Former Student Station Manager Recalls
Radio at Seattle's Nathan Hale High School**

by Tim Shook

One in a series of occasional articles by readers recalling radio facilities of their past.

President Ford was spending his first full year in the White House. Eight-track tapes and players were being relegated to the trash bins of antiquity. Tape cassettes were the hit for pocketing recorded audio; the era of the Walkman was coming.

I became student station manager in the 1975-76 school year. A year or so earlier, a sleek new Wilkinson Continental console had replaced the first installed air board, a Gates Stereo Producer. The Wilkinson suffered from faulty attenuators that didn't last long before becoming noisy and intermittent, and it also had a unique characteristic: When the Beatles' "Revolution" spun on the turntable with the monitors turned way up, the fuse for its monitor amps would blow out each and every time. (To

would leave a handle on the wrong setting, starting an album or single at the wrong RPM.)

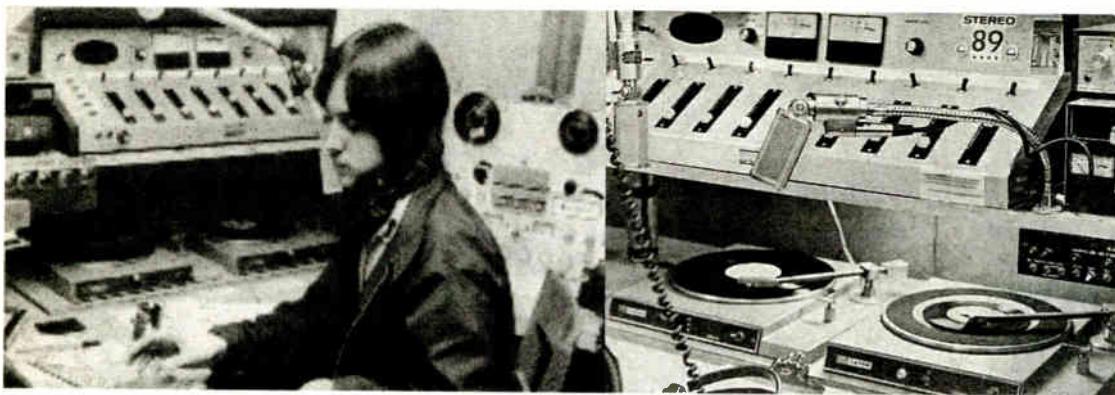
As the vinyl spun on these tables, other specialty songs were recorded in production on 5-inch reel tape and played from stereo Magnecord 1022 machines made by Telex, one in each studio. Just above the right-hand turntable, a panel of tiny buttons remotely controlled the production room's unit, with a small white toggle switch for tape cue when flipped up. Buttons would fast-forward and rewind tape to start — unless the reel flew off its spindle, requiring the operator to perform a manual reloop.

"Angie." A "borderline" song for the 8 a.m.-4 p.m. time period would be The Who's "Squeeze Box."

News, sports and weather aired five minutes before the top of each hour until 4 p.m., reported by new students who were just starting and who worked only in production before earning their main studio privileges.

Starting at 4, the programming gradually transitioned to '70s and '60s hard (underground) rock until 10:30 p.m. sign-off. Weekends consisted of taped public affairs and special programs within the regular music format, plus school football remotes in the afternoons and evenings. Some overtime games continued beyond 11 p.m.

Founder Larry Adams has since retired; engineer Gene Arnold passed



The author, left, in the KNHC Main Studio. Studio equipment including the Continental board is seen at right. Photos are from a school yearbook.

Radio stations fussed with turntable needles that skipped and repeated through broken grooves on vinyl platters. Reel-to-reel and audio cartridge tapes would stretch, break and warble.

Pacific Northwest listeners tuned in to top 40 on the AM: Channel 95 KJR, Kolorful KOL-1300 and MusicRadio-Eleven K-I-N-G. The stereo rockers included "Seattle's Best" KISW FM-100 and "O.K. One-Oh-Two-and-a-Half" KZOK 102.5.

And turning the FM dial far left to 89.5, you could hear educational station KNHC from Seattle's Nathan Hale High School. "Stereo 89" aired a popular playlist on its 1,500-watt directional signal.

Wilkinson

The station had been launched as a 100-milliwatt AM in 1969 and eventually was licensed as an FM, originally at 10 watts. Broadcast operations students were guided by two adult staff: General Manager Larry Adams, who founded the station, and Marvin "Gene" Arnold, chief engineer and electronics teacher. The novel vocational program became a stepping-stone for up-and-coming professional engineers and broadcasters.

be on the safe side, the song got limited airplay.)

Initially the station's production board was a Sparta-Cetec AS-30B five-channel mixer, later used for sports remotes after the Gates replaced it. Unlike the Gates Yard, which used rotary step-attenuators, the Producer had potentiometers.

Two Shure mics were boomed on each side of the Wilkinson for voiced stereo. The board op would bring up two left-side sliding pots together at an even volume; if they became unbalanced, you'd hear unequal separation on a stereo radio, especially over headphones.

A Realistic reel tape machine recorded every minute of on-air broadcast on a very slow mode. Each large tape documented up to six hours of programming and was shelved by the staff for at least three months per FCC requirements. Also in the studio was one rotary-dial desk phone for outside requests, making the station more personable in acquiring listener feedback.

Audio cart machines were mono International Tapetronics Corp. models. Our Gates turntables were equipped with metal handles that were used to change speeds; sometimes an operator

Format

KNHC's broadcast antenna was located atop an elementary school building on a hill 22 blocks from the high school studios; coverage was on the order of 20 miles or more.

In 1973 a high school across the lake in the city of Bellevue launched a station at 89.3; this was 10-watt KASB. Our antenna had a deep null to the southeast, away from the city, protecting that station's frequency.

Our stereo exciter was a Sparta; a lot of time was spent repairing it, and when it conked out, a Gates 10-watt mono transmitter filled in. This unit's 19 kHz stereo pilot wouldn't stay on unless the multimeter rotary switch was left in a certain position.

Stereo 89's weekday sign-on launched '70s and '60s easy top-40/80 singles and album cuts plus occasional soul, jazz and country requests mixed in. Typical selections included Pink Floyd's "Us and Them," the Doobie Brothers' "Black Water" and the Rolling Stones'

away in 1985. The station is now known as "C-89.5 Worldwide" and is streamed on the Internet; it has been led by teacher-manager Gregg Neilson since the mid-1980s. The FM signal claims more than 100,000 weekly listeners, mostly in their teens to mid-30s; and it has won awards for its dance music programming. The antenna on Cougar Mountain broadcasts at 8,500 watts, nulled southward within the Seattle metro coverage area.

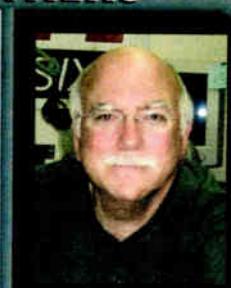
Still broadcasting after 35+ years, the KNHC classroom continues to fill with generations of students gaining the skills necessary to compete in a changing broadcast industry.

Tim Shook contracts in radio production and is voice imaging with a Northwest netradio project. For past KNHC audio, contact him at keypwr@gmail.com.

Share your memories of radio facilities via e-mail to radioworld@imaspub.com.

WE GIVE YOU WITHERS

Name: James G. Withers
Occupation: Radio station owner
Certifications/Honors: Lifetime General Radiotelephone License; past speaker/panelist at NAB, TAB and Digital Hollywood
Hero/Mentor: Robert Shrader, author, "Electronic Communications." Without that book I would never have passed my Second or First Phone.
Favorite Station Growing Up: WIL, St. Louis — Dick Clayton, Gary Owens, Ron Lundy. Best group of Top 40 jocks, ever.
Most Memorable Broadcast: Engineering a live audience, two-way, four-station lash-up for a Bill Clinton Town Hall meeting from KDFW(TV)
Favorite Saying: The only thing in life that's not for sale is your character.



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Gel

► Continued from page 16

are attracted to things with hinges. This is no big deal in a toolbox, but Jerry had a packet split and spill its contents in his computer bag; now he is reminded every time he opens the lid of his laptop computer and the beads crunch.

He also had a package break inside his briefcase. The beads tend to get stuck in places such as the unprotected power jack on the cell phone.

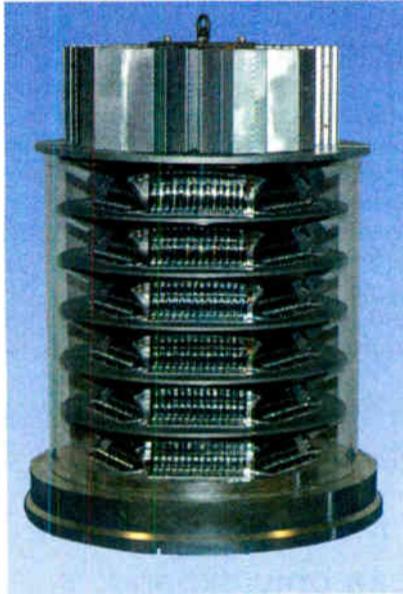
If you're going to use these little packs, perhaps fasten them to the inside of the briefcase or toolbox with a piece of duct tape. Remember to fasten just the edges; if tape covers the entire packet, its effectiveness is reduced.

MARKET PLACE

Dialight Expands Beacon Line

Broadcast towers and wind turbines are among the applications for a new beacon from Dialight.

The company says this is the world's first LED medium-intensity red-white beacon.



The product, it said, is designed to overcome problems affecting conventional lighting systems. "Current Xenon and incandescent technologies are severely affected by vibration and extreme weather conditions and offer a relatively short product life that in turn leads to attendant high maintenance costs," it stated. The LED obstruction light is solid-state; it provides 20,000 candela flashing white combined with a 2,000 candela steady or flashing red. The beacon also reduces light pollution, the company said, with an optical design that focuses light selectively and avoids spilling excess light towards the ground.

For information contact the company in New Jersey at (732) 919-3119 or visit www.dialight.com.

Where else to place these? Don't forget things like remote cases, which may be retired until next season.

★ ★ ★

Wondering where to find those little silica gel packs? Bob Culver, a principal with the firm Lohnes & Culver Consulting Communications Engineers, suggests you contact a large retail outlet that uses them in received shipped goods. Bob selected a shoe store, but any sporting goods or shoe store is a great place to start.

Introduce yourself to the shoe department manager, give him your card and ask that they save all the gel packs in a shoebox instead of throwing them out. If you have a station T-shirt or ball cap to trade, that's even better.

The manager stapled Bob's card to an empty shoebox in the storage room. A month later, Bob revisited the store and found several shoeboxes full of the gel packs waiting for him. Most were the small 5-gram packets, but he also came away with several 25- and 50-gram packs, enough to last for years.

Bob also recommends storing gel packs in secure and airtight containers. For long-term storage, he uses ammo cans. The .30- and .50-caliber cans are just about right for small parts or tool storage. Larger cans or cases are also available.

If you buy them surplus, make sure they're in good condition and have airtight seals. The ammo cans and most military shipping containers have airtight gasketed closures. The bigger cans have pressure relief valves.

Bob adds a caution if you ship anything by air cargo in a big airtight container: The altitude pressure drop can force the case open enough to vent the inside air. Then, upon descending into denser air, the outside pressure will clamp the case shut. Just like steam canning your string beans at home, you will have vacuum-sealed parts! Without a pressure equalization valve, you'll fight to get the shipping container open.

John Bisset has worked as a chief engineer and contract engineer for 37 years. He is the northeast regional sales manager for Broadcast Electronics. Reach him at (511) 217-9386, or jbisset@bdcast.com. Faxed submissions can be sent to (603) 472-4944. Submissions for this column are encouraged, and qualify for SBE recertification credit.

FEATURES



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INFORMATION TECHNOLOGY

The Role of Radio IT Evolves

by Tom Vernon

At least a decade has passed since information technology began to make big inroads into the broadcast plant. Initially on the periphery of operations, IT has grown in importance to become the core infrastructure for most stations.

As the technology has matured, so has the role of the IT manager. We spoke with several managers of IT technology about the past, present and future of broadcast information technology and the people who oversee it.

Beyond e-mail

At the outset, most larger radio operations had traditional broadcast engineering and computers/IT set up as different departments.

"In the early days, IT managers were involved with setting up e-mail accounts, helping users format floppy disks and troubleshoot issues related to Microsoft Word," said Jeremy Schumacher, manager of newsroom computer systems for Westwood One. He said computers started out as a tool to support administrative operations and have gradually come to constitute both the infrastructure and the automation tools that run the broadcast plant.

Schumacher said the daily challenges of the IT manager involve keeping the system up and running. "It's

analogous to what broadcast engineers used to do with transmitters."

David Julian Gray, senior architect of content systems for National Public Radio, agrees: "Maintaining a system with high availability 24/7/365 is paramount. Users expect immediate playback of audio files, usually within 100 ms."

Storage of content is an ongoing challenge. Gray said Moore's Law —



Jeremy Schumacher manages newsroom computer systems for Westwood One.

the observation by Intel's Gordon Moore in 1965 that the number of devices inside chips was doubling every year — applies to storage capacity as well as processing power. While storage-area networks (SANs) have grown in capacity, user expectations are growing faster than a system's ability to keep up.

"A reporter may do a 2-1/2-hour interview," said Gray, "and use 30 seconds of that in a report. He or she still wants the system to store the entire recording." He said an upcoming issue is providing the user with the perception of unlimited storage.

Fundamentals

Robby Mossman, director of IT for Greater Media Boston, sees a dual nature in his daily responsibilities.

"On the engineering side, making sure the AudioVault is functioning properly and the HD Radio systems talk to each other as well as the rest of the infrastructure is key. The business side entails setting up e-mail accounts and making sure Web sites run efficiently." He said the non-engineering aspects of IT consume the majority of his time at Greater Media.

The right mix of formal education in IT and on-the-job training is essential, especially for recent college grads contemplating a position in broadcast IT. A college degree in computer science or IT is important, but hands-on skills are essential.

"People in their 30s grew up with computers as the technology developed," said Mossman, "and tended to learn fundamentals like DOS, PASCAL programming and hardware setups.



The 'back wall' IT installation of WCBS(AM) in New York includes a Radio Systems StudioHub for many of the digital audio interconnects.

and identify devices.

Experts agree that the future of IT in radio will be different, though Schumacher said the rate of change seems to be slowing a bit.

Convergence

"There's not much left to be converted to digital," he said. "Computer-based audio processing will continue to make inroads, as will PCs at the transmitter site. Mobile technology will become increasingly important, and much research remains to be done on how to best deliver content to cell phones."

As an adjunct to infinite storage capacity, Gray sees metadata as one of the next challenges for broadcast IT. He said metadata, the information about information being stored, needs to be

Mossman believes today's IT managers will be the future engineers of radio, as the role of computers in radio can only expand.

These things don't seem to be taught in many IT programs, and this lack of fundamental knowledge has a definite impact on our industry."

He believes programmers working for many broadcast manufacturers develop bloated, inefficient code for their products. IT managers in turn end up troubleshooting the code and doing the kind of market research that the manufacturer should have done.

As IT systems are designed, built and revised, documentation must be developed and maintained. Gray said there's a need for an IT manager to create both physical and logical maps of the network. At NPR, physical representations usually are made with AutoCAD, while logical drawings are done on Visio. These materials need to be available for second-tier support staff.

A restraint on keeping documentation current is available manpower, with first priority given to maintaining system throughput and availability. Gray finds helpful newer IT gear with autodiscovery, which allows the network to locate

structured in such a way that it is meaningful. Fuzzy logic seems to be the key to finding information fast.

"We are headed towards a convergence of delivery platforms with one production flow. As more people interact with data through the flow, it becomes increasingly important that metadata is entered once, and correctly," he said.

Moving into the future, Gray said broadcasters should think more in terms of delivering content. "The subset of audio is the most important piece now, but radio folks may need to rethink this as delivery mediums change and evolve."

Mossman believes today's IT managers will be the future engineers of radio, as the role of computers in radio can only expand.

"Sadly, the day-to-day work load at many operations tends to limit the amount of energy that can be put into envisioning the future of IT in radio."

How does your station or group manage its IT functions? Tell us at radioworld@imaspub.com.

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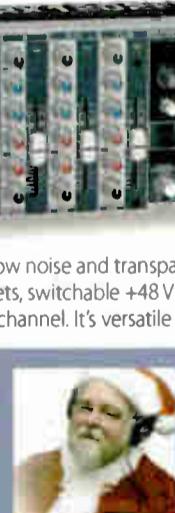


This versatile 12-channel rackmount mixer boasts 8 studio-grade mic preamps renowned for ultra-low noise and transparent audio quality, and also features a 24-bit digital stereo FX processor with 100 presets, switchable +48V phantom power for condenser microphones, and 2-band EQ with Clip LED for each channel. It's versatile enough for studio mixing or can be added to your remote truck. Other features include 2 aux sends per channel: 1 pre fader for monitoring applications, 1 post fader for internal FX or as external send; CD/tape inputs assignable to main mix or control room/phones outputs; and separate control room, phones and stereo CD/tape outputs.

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World Radio History



Comm-Struction and Services, Ed Bukont's engineering firm, said it completed design and installation of HD Radio facilities for WIYY(FM) in Baltimore, which has been denoted as the 1,000th HD Radio station by iBiquity Digital. The Hearst-Argyle station is using three Harris transmitters, combiners, loads and redundant audio and exciter systems. WIYY now offers HD2 and HD3 channels as well as the main HD channel. ...



Transmitter projects are in the news. Here, a Continental 816HD for Sandusky Radio-Seattle's KWJZ(FM) is moved into place; the cluster also purchased a transmitter for KQMV(FM). George Bisso is chief engineer. Walt Lowery handled the sale for Continental.

Fisher Radio-Seattle turned on a new Nautel XR50 transmitter at KOMO(AM). The XR50 replaces a Continental 317, which becomes the backup, according to Walt Lowery of RF Specialties of Washington, who represented Nautel. Lowery says the Continental was the last tube-type, 50 kW rig on the air in the Pacific Northwest. John Barrett is chief engineer, Bob Holcomb is Fisher's radio transmitter engineer and Kelly Alford is VP-CIO. ...

International broadcast network CVC-La Voz has added affiliate stations in Chile. The Christian broadcaster said more than 200 stations in the Americas and Spain are now carrying its programs. Programs are produced in Miami Lakes, Fla. ...

Dalet Digital Media Systems said Elemedia, a subsidiary of the Italian company l'Espresso, has deployed DaletPlus Radio Suite to automate the broadcast of 25 radio channels. The installation enables Elemedia to broadcast programs and metadata on SKY TV Italia satellite. ...

Telos Systems reported ProFiler sales to WINS(AM), New York; KTRU(FM), Houston; the Clear Channel cluster in Pensacola, Fla.; and WCBM(AM), Baltimore. It noted sales of the Omnia-6EX processor to stations in Sarasota, Fla.; Cincinnati; Richmond, Va.; Phoenix; Sheridan, Wyo.; and Chicago.

Radio Television Malaysia, the government-owned broadcaster of Malaysia, hired Netia to refurbish 11 regional stations with Radio-Assist 7.5 content management software. The station has been using Netia Radio-Assist since 2001. Separately, Netia said **Radio France Internationale** is equipping all 18 of its on-air studios in Paris with AIR-DDO playout software. ...

WKQS(FM), a 50 kW commercial station serving the Marquette Michigan area, used a Jampro JHPC to replace an existing antenna. Todd Noordyk is general manager of the Great Lakes Radio station, which is about 150 miles south of the Canadian border. ...

Klotz Digital products were used by XM Satellite Radio and Fútbol de Primera to provide play-by-play and other coverage from Germany during the 2006 FIFA World Cup soccer tournament. Radio and TV broadcasts



Believed to be the first AM HD Radio system in Asia, a Broadcast Electronics BE AM 10A transmitter with AS 10 HD signal generator broadcasts from Surabaya. Radio Sangkakala is affiliated with Bethany Assembly of God. Shown: Marketing Manager Rio Darmawan and Engineer Joko Pujiatmoko of BE rep Catur Mitra Adhikara.



What a ham! The mascot for country station WPIG(FM) in Olean, N.Y., pulls the switch to fire up the station's new transmission facility, which features a Harris HT20CD analog FM transmitter operating at 15.2 kW. It replaces a 1960s-era Gates/Harris 20H transmitter. WPIG is owned by Backyard Broadcasting.

during the event were generated from the International Media Center in Munich. XM and Fútbol de Primera ran the largest radio broadcast facility there. A main control room, two continuity studios and two speaker rooms for the Spanish- and English-language broadcast teams were installed. Klotz Digital Audio Systems in the United States planned the project. ...

Barix AG delivered Instreamer and Exstreamer IP audio encoding and decoding devices to Vermont Public Radio and WMHT, a public broadcaster in the Capital District of New York. The deliveries were the first through Barix's alliance with StreamGuys, a content delivery network. The agreement allows Streamguys to offer its customers PC-free hardware solutions for broadcasting and receiving streaming media over the Internet, using Barix products. ...

WideOrbit said its WO Traffic software system has been installed in approximately 500 stations and networks. It said that includes 74 radio stations using the system, with another 43 under contract. Users include Entercom clusters in Sacramento and Boston, as well as Pacific Empire Radio, Vista Radio in Canada and MBC Grand. ...

BDSradio.com signed subscribers to its performance monitoring service including Cenla Broadcasting station KKST(FM) in Alexandria, La.; Courier Communications' WNOV(AM) in Milwaukee; Davis Broadcasting station WFXE(FM) in Columbus, Ga.; Cumulus' WDLT(FM) in Mobile, Ala.; San Joaquin Broadcasting outlet KSTN(FM) in Stockton, Calif.; and Clear Channel's KABQ(FM) in Albuquerque, N.M. ...



Chuck Tayman of BBC NYC talks with a guest from behind a Soundcraft digital board.

When Fisher Radio-Seattle turned on a new Nautel transmitter at KOMO (see text), one result was the decommissioning of this RCA BTA-50, in service since the 1940s, according to Walt Lowery of RF Specialties of Washington. He said the legacy transmitter was among the last plate-modulated, 50-kilowatt transmitters in operation.

Harris reported sales in of its ZX low-power and Z-Series FM transmitters to multiple groups as part of Phase Two of India's Private FM project, which expands FM coverage to much of the country, complementing that country's government-run AM services. Harris said it has won the majority of the Phase Two contracts to this point. It will deliver the transmitters through **Horizon Broadcast Electronics**, a regional dealer that will assist with installation.

Separately, Harris said its new MicroMax low-cost FM exciter will be used at **Cox Radio Orlando**. The station group will install two ZXT 1000 1 kW transmitters with MicroMax exciters at its studios. The frequency-agile transmitters and exciters are backups for five area stations. And Harris said **Radio One** exclusively purchased its transmitters for its third round of HD Radio conversions. It said the broadcaster planned to install transmitters at 17 FMs and one AM by the end of the year for a total of 35 Radio One stations on the air with Harris transmitters by the end of 2006. John Mathews is vice president of engineering for Radio One. ...

Gencom Technology installed **Soundcraft RM1ds** digital on-air radio mixers at BBC News and World bureaus in Manhattan, one at the broadcaster's midtown studios, the other at the headquarters of the United Nations.

The desks went in during 2005 pro audio and video system upgrades for the bureaus, which took place on the heels of a Gencom installation project at a new BBC facility in Washington. The New York news bureau has TV and audio facilities including a radio studio outfitted with a 12-fader Soundcraft RM1ds. A six-fader unit is at the U.N. Secretariat building.

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Photos © Steve Freedman

► John Casey, John and Natasha Lyons, Paul McLane and Jody Durst



◀ Durst Senior Vice President of Leasing Tom Bow

▼ Mark Heitzler, John Lyons and Russ Hamm



▼ Rodney Belizaire, Tom Ray, Alan Parnau, Steve Pepe and Herb Squire



► Glynn Walden, John Lorentz and Jay Churnetski catch up.



▼ Joe Giardina of DSI RF Systems/Beez Foundation, right, congratulates Natasha Lyons.



▲ From left: Jay Churnetski, Spanish Broadcasting System; Glynn Walden, Infinity/CBS; Steve Shultis, WNYC; John Lorentz, SBS; Rodney Belizaire, WQXR; Joe Giardina, DSI RF Systems; Mark Heitzler, Rainbow Broadband; Susan Giardina, DSI RF Systems/Beez Foundation; Tom Ray, WOR/Buckley; Jody Durst, The Durst Organization; Mark Olkowski, Infinity/CBS; John Casey, Radio World; Tom Bow, Durst; recipient John Lyons; Herb Squire, DSI RF Systems; Natasha Lyons; Steve Pepe, Emmis; Paul McLane, Radio World; Jim McGivern, Emmis; Tom Crowley, North American Mobile Systems; Alan Parnau, CBS; Russ Hamm, Rainbow Broadband; Jack Mulvihill, Hatzel & Buehler; Dave Barth, Univision TV; and Richard Ross, Univision Radio.

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Remake, Remodel and Re-record

The Contemporary DJ Culture Has Created A New Genre of Musical (Re)Expression

A while back I took my wife to a funky little dance club in Geneva, Switzerland, with which I had become familiar over several previous solo visits there.

This night, however, I was surprised to see an uncharacteristically large crowd hanging in the street outside and a big line at the door. I learned that there was to be a special show starting shortly, featuring several of what the folks at the door called "DJ groups." Intrigued by the unusual terminology, we got in line and soon went inside, hoping to find out whether this was just another anomaly in French-to-English translation, or something truly new.

We were amazed to find out it was indeed the latter. We wandered out of the club a few hours later feeling that we had seen the future of music, or at least one of its possibilities.

Keyboard wizard

The multiple acts on the bill that night were all variations on a theme, but the top bill was exemplary of the genre: Three 20-something guys on stage, dressed and lit like a band, each standing behind his own "axe" — on the left, a laptop PC; on the right, a Powerbook Mac; in the middle, a couple of Technics turntables with an analog DJ mixer.

As the three performers began to play their respective devices, it was usually difficult to tell who was actually contributing what to the overall sound, but they were clearly working hard and together, just like a band, producing a coherent, well-rehearsed and rich sonic piece suitable for either dancing or just listening. Most of us just stood there watching, but occasionally a few pock-

ets of folks would start dancing to the amazing music. Occasionally, the "band" would break it down, and two of them would step back from their rigs, while the third soloed. This allowed the audience to determine just what an individual member of the group was doing. Of course, the analog DJ (who looked to be the youngest of the three) was the most fun to watch during the solos, and appropriately, he was usually the last of the breaks.

Although all of the music had originated from recorded elements, the presentation of the resulting mix was collaborative and live. To me this was a true hybrid of DJ and band, and was no less valid as a musical performance than if the guys on stage had been using guitars and drums. And while I didn't rec-

resulting in a stunning, psychedelic visual tableau), or the first time I heard a professional big band play live (standing right in front of the horn section the whole night, looking like the guy in the Maxell ad with his hair blowing back). That night in Geneva ranked as another of those Eureka moments.

Since then I've learned more about the new DJ subculture. While most of it is can be characterized as somewhat more "canned" than our Geneva experience, it's all part of a continuum that's been developing in pop music for a number of years.

From recreation to re-creation

At one end of this spectrum is the band with a DJ as one of its members, as pioneered by hip-hop DJs like Grandmaster Flash. It's become a staple of the hip-hop scene, with every group having a DJ member, just like every Latin band has at least one percusion-

It seems only fitting for the medium that spawned this DJ subculture to welcome it back into the fold in some way.

ognize any of the musical elements (all instrumental), I later learned that this was because much of it was original — mostly created by the DJs themselves — making the hybrid lean even further toward the "real" music model.

In any case, I had never seen anything like it, and I was impressed. Maybe transfixed is a better word. It took me back to similar discoveries of my youth, like the first time I saw a real live light show (created by three guys slaving over a variety of hot projectors,

ist. At the other extreme is the band made up of *only* DJs, as described above. Somewhere in the middle are the bulk of today's club jocks, who scratch, cut and mix music in a far more creative fashion than the traditional radio DJ.

But while the radio DJ simply plays one song after another, his or her real value-add is the banter in between, which is typically *not* a part of the club DJ's oeuvre. Thus the two types of DJing have diverged to the point where today they are worlds apart.

The Big Picture

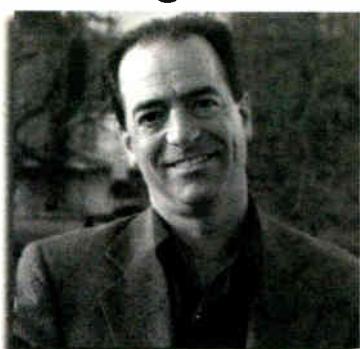


Photo: Gary Hayes, BBC

by Skip Pizzi

Another tributary of this scene is the "turntablist producer," who produces recordings that are remixes made in a studio, largely (if not entirely) from material taken from previously released recordings by other musicians. In some cases these recordings are released as records in their own right, such as those from well-known DJ/producer Paul Oakenfold. In many other cases, these recordings are simply used by the DJ at his/her own shows. For the latter, these recordings originally had to be pressed to vinyl — the so-called "dubplate" — but today they can simply be loaded onto a computer-based DJ program (such as the Serato system discussed in our Nov. 22 column).

This has led to a full range of "remixes" of popular tunes, which is sort of analogous to a band covering another band's tune, but in the DJ version, the actual recording of the original song is used. Some popular songs have had several different remixes released, such as Coldplay's "Clocks." Customers of online music stores frequently find results of their searches for popular tunes to be populated by both the original and numerous third-party remix versions. (Note to engineers: This argues for a new top-level metadata field for "Remixed by," following just after Title and Artist.)

A variant of this is the "mash-up," which typically remixes parts of two or more songs together, such as the current "Sure Side of Fame" by L.A.-based group The Arbiters that cleverly combines Lou Reed's "Walk on the Wild Side" with David Bowie's "Fame."

An indication of the popularity of this production space is the number of TDM and VST "DJ plug-ins" for ProTools and other computer-based audio production systems, which allow DJ-style manipulations of audio tracks. (In fact, the Serato system originated as just such a plug-in, before becoming a standalone application for club use.)

Interestingly, while such appropriation of previously published music has created a rich and interesting new genre, it has given fits to the business side of the music industry. There is no established music licensing mechanism that covers this process, which applies to everything from sampling of a small portion of a song to remixing an entire song. Today, to be strictly legal, each remixer must contact (and often pay) the rights holders of the original piece to obtain permission. Several efforts are underway to simplify this process into something that might work like the statutory licensing processes that are in effect for composer, mechanical and public performance rights that cover bands, filmmakers, broadcasters and

See REMAKE, page 27 ▶

Happy Birthday Radio!



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Remake

► Continued from page 26
others use when they want to include a particular piece of music into their product or service.

One way around this has been to use public-domain material, which has perhaps stimulated the development of another variant of remixed music, in which pieces of (typically spoken-word) content are taken from old corporate training film soundtracks, NASA or other government transmissions, university lecture recordings and the like. The juxtaposition of these often dated or strange-sounding recordings with contemporary music backgrounds creates another intriguing modern sonic flavor.

Putting it back on air

The high-brow perspective might compare this new genre to Montage or Found-art forms in the visual arts, and the comparison would be apt. From humble beginnings, this area has now become quite sophisticated, both artistically and technically. In the latter area a

This argues for a new top-level metadata field for 'Remixed by,' just after Title and Artist.

number of books have emerged recently, such as "The Dance Music Manual" by Rick Snoman (a runaway hit that surprised even its publisher, Focal Press, which now plans to publish more titles addressing this area in the near future).

The next challenge for club DJs will come from the user-generated content space. These new venues for publication of remixes, mashups and the like from amateur stylists will drive professional DJs to push the envelope further to stay ahead of the crowd. It also offers working club DJs a method of spreading their fame beyond the somewhat exclusionary walls of dance clubs to reach a broader audience. (Many DJs and turntablist producers already have established MySpace pages, for example.)

Closer to home, can radio re-adapt this increasingly popular offshoot into its own future offerings? It seems only fitting for the medium that spawned this DJ subculture to welcome it back into the fold in some way. A few forward-thinking stations have begun to do so, mostly by including some remix and mashup products in their playlists, but occasionally by airing live DJ sets on air, in which club DJs perform in the station's studio like a live band.

While radio and club DJs will continue to occupy two separate worlds, expanding their area of intersection could be mutually beneficial.

Skip Pizzi is contributing editor of *Radio World*.

MARKET PLACE

2007 Tower Calendar Is Available

In time for holiday gift giving, Scott Fybush is out with the sixth iteration of his annual tower site calendar.

The 2007 calendar features monthly photos of a broadcast transmitter site. It is photographed and written by Fybush, creator of "Tower Site of the Week" and "NorthEast Radio Watch" and a contributor to *Radio World*. The calendar is not affiliated with RW.

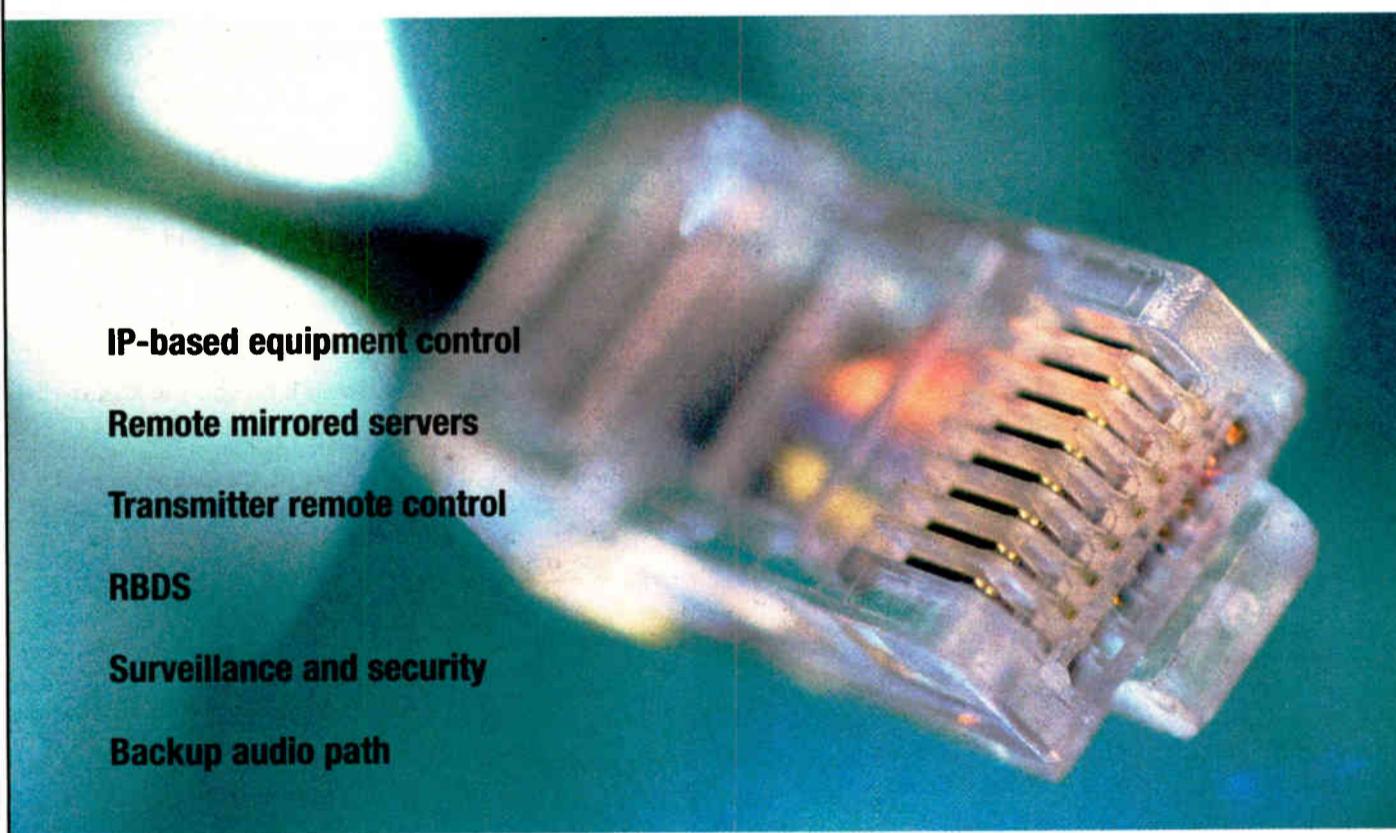
Sites pictured this year: WCCO(AM) in Minneapolis, the 50-kilowatt voice of the upper Midwest; Philadelphia's Roxborough FM/TV tower farm at night; Atlanta's new 50-kilowatt AM, WCFO 1160; New York City's ESPN outlet, WEPN 1050; the towers of Boston's WBZ(AM); the three towers of KGO(AM), in the



waters of the East Bay of San Francisco; a sunset view (shown) of the hilltop tower farm overlooking Duluth, Minn.; Chicago's WGRB 1390 and WVON 1690; the remote Mount Potosi FM antennas above Las Vegas; winter views of "hometown" stations WJOT(AM/FM) in Wabash, Ind., and WCJW(AM) in Warsaw, N.Y.; the historic site of WTIC(AM), Hartford, Conn.; the picturesque "Mayberry" site of WPAQ(AM) in Mount Airy, N.C.; and the seven towers of KOIL(AM), Plattsmouth, Neb., near Omaha.

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An Efficient and Safe Transmitter

A Collection of Tips to Aid You in Keeping Your Site Secure and Operating Economically

by Paul Kaminski

When upgrading a facility with new equipment, including HD Radio gear, forward-looking managers and directors of engineering will choose the most efficient devices they can find. This is particularly true when buying a system that consumes the most electricity of any in the station inventory: the transmitter.

A new transmitter can bring a great benefit to the bottom line, with increased efficiency and better reach for the station signal. But the advantages come with a great risk; people working on transmitters can be killed by the electricity used to power the devices if they let down their guard even for a fraction of a second.

We talked with representatives of Dominion Virginia Power in Richmond, Va., and CommStruction Services in Baltimore, seeking tips for non-technically trained managers and new engineers to understand issues that must be considered when installing a transmitter and to share best practices for reducing risks. These tips also serve as reminders for experienced engineers.

These explanations and practices are not a substitute for your own due diligence;

they are provided as a jumping-off point for conversations you should have with engineering, risk and corporate managers.

Miss Utility

Dominion Virginia Power, like most electric utilities, can run power from a pole or underground to the transmitter building. That's a consideration addressed when planning the new installation.

The amount of power supplied depends on the type and size of transmitter. If you are asking how much power the transmitter will need to run efficiently, Ed Bukont of CommStruction says, "Every transmitter manufacturer has detailed pre-installation information that gives specifications for everything you need to know." Like you, the transmitter maker, Bukont says, wants to see your installation done properly the first time, "because it saves them time and money on warranty claims."

Those pre-installation instructions will determine the size of inside wiring and service for the transmitter building and whether power lines are installed in building walls or conduit. Local electrical inspectors have to inspect and approve the wiring before any electric utility can begin to supply power to new installa-

tions. Dominion Virginia Power installers perform tests at the meter before beginning service.

The latest edition of the National Electrical Code gives the parameters that designers and electricians must follow for wiring size and service. There are different regulations for safety around incoming power lines.

For example, Virginia adopted a "High Voltage Line Safety Act" in 1989 and revised it in 2003. The law requires workers and their equipment to maintain at least 10 feet of clearance on all power

**Make sure you
remove all rings,
watches, hanging
jewelry and
piercings — and
don't forget that
Bluetooth headset.**

— Ed Bukont

lines over 600 volts and requires them to contact their local utility at least five business days before beginning work so safety arrangements can be made. An additional four inches of separation between the worker and/or equipment and the power line is required for every 10 kV over 50 kV. There are special considerations when working around buried electrical lines.

Dominion Virginia Power reminds people who may need to dig around buried power lines that the Underground Damage Prevention Act requires workers to call "Miss Utility" before doing any digging. This service notifies the locating company for that area, who will mark the location of all utility owned underground facilities with paint and/or flags at the work site. Other states have similar services. The law prohibits digging with power equipment within 2 feet of any marked underground facility.

Safety

Bukont reminds readers that National Electrical Code and Occupational Safety and Health Administration regulations apply to your new or rebuilt transmitter plant. He cites examples of what might trigger OSHA notices of violation.

"If you have a remote control for your transmitter, then you need a properly posted, OSHA-approved sign that indicates that the equipment next to it starts automatically," he said. "You need a written and communicated procedure on how the device is locked out from remote/automatic operation when being serviced."

Another tip: "If you have a ladder at your transmitter site, which is a commercial building, it must be a fiberglass ladder, not a wooden or metal ladder, both of which are not allowed in commercial establishments."

Why not wood? Wood can retain enough moisture to act as a conductor

under high-voltage fault conditions. It's certainly possible to have a transmitter plant that is in full compliance with FCC regulations and yet be in violation of OSHA rules, so the latter must be considered when planning a new or upgraded transmitter plant.

Shocks

What can happen if a transmitter plant is damaged? Can an electric company refuse to turn the power back on?

Dominion Virginia Power literature states: "In the event the service is interrupted due to a fire or similar occurrence, an electrical inspection may be required if an electric company feels the service (at the customer end) is unsafe to energize."

When you are managing the remediation of damage at a transmitter plant or writing the checks for this work, specify verbally and in writing that any such repairs must be made in accordance with the applicable chapter of the National Electrical Code in effect at that time.

Transmitters also present shock hazards. There are usually four separate entrances where power can be supplied to a transmitter, Bukont says.

"The first breaker you'll want to check is the one that controls the external relay, if your transmitter is a solid-state transmitter; or the high-voltage cabinet if it's a tube transmitter. Next, check the breaker that brings control power to the transmitter. Third, there may be one connected to an uninterruptible power supply to maintain power to microprocessor-based devices. Fourth, be especially careful of connections between external power supply and main cabinets, as well as remote control on legacy transmitters where 120-volt control circuits may be found in older transmitters.

"Finally, don't overlook power supplied on detachable power cords," he said. "You can get a shock if you work near live conductors, conductors that have not been or have the capability to discharge and ground circuits."

Best practices

In an ideal world, each visit to the transmitter would be made by two equally qualified engineers or staff members, one acting as a backup for the other.

Sometimes that's not possible. Bukont has a suggestion for those situations.

"When a pilot flies solo, the pilot files a detailed flight plan, which lets responsible people know the destination, route and contact information. If you are tasked with working on a transmitter by yourself, a contact plan is absolutely necessary."

"First, tell a responsible person that you will be at the transmitter at a certain time and provide the route you'll take to get there. Even if this is a night job, that person must be awake while you are at the site. Second, tell that person what you plan to do, and when you plan to check in. Make it their task to call you and know what to do if you don't answer the call. Third, your monitor person should have a checklist with names, contact numbers and actions to be taken, in case you do not check in as planned with the responsible person."

See TRANSMITTERS, page 30 ▶

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FEATURES

SUPPLY SIDE

Audemat-Aztec Expands Remote Control Offerings

Supply Side is a series of occasional conversations with industry suppliers in the news. This is with Audemat-Aztec Executive Vice President Christophe Poulain and Operations and Communications Manager Sophie Lion Poulain.

RDS and field measurement are your most familiar niches for U.S. users. Now transmitter remote control is a focus as well?

We arrived in the U.S. 3-1/2 years ago. RDS was a very productive market for us; when we arrived Entercom and Clear Channel decided to implement RDS. It was a big boost. Then we designed a product based on specifications from Clear Channel with the GoldenEagle HD; we're quite successful with that so far. So now the next step for the U.S. market is transmitter remote control.

We've been designing and shipping several products, mainly in Europe. The markets are different, their needs are different. We had to analyze the market first in the U.S., get comments from customers; we've made some modifications to our products and now we're ready to push those here.

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A lot of broadcasters have installed TCP/IP capability at the transmitter site; so it's easier now to provide such tools.

Clear Channel also decided to work with us because of our Broadcast Manager software. We've been selling this for several years in Europe; it can manage not only transmitter remote control but also RF monitoring equipment. Broadcasters are going toward centralized monitoring. This will centralize alarms, readings, configurations from HD RF and mod monitors and transmitter remote controls. This is very new in the U.S. but we can see it in Europe at a lot of networks.

Most of the time when we talk about RF monitoring or remote control, it's equipment you install at the transmitter site or studio; but now we're talking about the possibility of sending the information and alarms to a central location, where we'll install the Broadcast Manager. That means having statistics from the different sites; the GM or vice

president would be able to access it too.

The Broadcast Manager manages both the HD monitoring equipment and the IP2choice transmitter remote controls. Because of the HD rollout, a lot of broadcasters have installed TCP/IP capability at the transmitter site; so it's easier now to provide such tools.

The Broadcast Manager is installed at Clear Channel in Tulsa. If I'm the chief engineer in Tampa, based on my password and login I can access only my information. If I'm the regional VP engineering I have a different password. This is helpful in weather situations such as Mississippi, where last year Clear Channel wanted a



tool to check quickly which stations are on the air.

What other business initiatives is the company taking?

We're moving forward in the television market. In Europe we manufacture

and sell metering and monitoring units for DVB-T and DVB-H, for digital television and mobile applications. Also we purchased a French company, Ecreso, the only manufacturer of FM transmitters in France. The idea here is not to sell FM transmitters in the U.S. — this market is already very competitive and we don't have an HD transmitter — but it was an opportunity to get more engineers with RF skills. We now design and manufacture DVB-T and DVB-H low-power transmitters.

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TECH TIPS

Wind-Up Radio Powers Cellphones

by Charles S. Fitch

If there is one attribute that separates broadcast engineers from other technocrats, it's resourcefulness. Down in our core, we're all MacGyvers.

A personal "for instance." Many years ago, an emergency repair call took me to a mountaintop site in the middle of a subzero night. In the course of making the repair I went to my car to listen to the station but made the disastrous mistake of leaving the ignition and lights on when I went back into the transmitter shed. Needless to say, when I returned hours later my battery output (at -30 degrees F) was insufficient to turn the car's engine. Alone, I was on my own.

The facility was a simple one and the closest thing to 12 volts in the plant was a small 24-volt relay supply. I pieced together every shred of clip lead, speaker wire and other available parts and extended that 24 volts 50 feet to the car battery. To avoid frying the supply, I limited the current as the battery charged by creating a 10-watt resistor out of a ménage of 620-ohm, half-watt termination resistors I found in a bag under the driver's seat.

I held the current to under 1 amp — my guide was the heat generated by the supply transformer and pass transistor — and it felt like an eternity before I could turn the engine over at dawn.

Power life

We all have stories like this, times we've faced challenges to keep going when everything else failed. One thing we've learned from crises like Hurricane Katrina is that things go a lot easier with advanced planning. Here's a helpful tip.

In the past I've reviewed emergency radios with onboard generators such as the BayGen FreePlay Plus and Grundig FR-200. This type of radio deserves a place at your home and office for the rare occasion when things go bad for days at a time.

Radio Shack now offers the AM/FM/SW Dynamo Radio with Light, functionally similar to the Grundig FR-200 but with an important addition: the ability to charge your cell phone battery. In the package with this emergency crank radio (Model 20-238) is a cable with four adapters to couple the voltage from the radio into many popular contemporary models of cell phones. This allows you to use the dynamo to keep your cell phone running when all other power sources fail.

The selection of connections did not accommodate my trusty, ancient StarTAC. The connector on the radio is a USB; any cell that can mate to that is set.

I bought my radio on sale for \$29.95. The sale models were gray. A Halston black version apparently was sexy enough to command the list price of \$39.99, in line with that of the FR-200.

Otherwise the radio is similar to the FR-200. You might want to check out the original review of that model at radioworld.com; click on the Product Evaluation tab, follow the link to the archives and scroll down to 03-12-03.

Between fuel on site for the generator and 10 hours in the UPS system, most cell sites can stay on for at least a day and a half. Refueling extends their operation. Have at least one of these charger radios on hands and you'll be able to keep all your cells running to match.

Charles S. Fitch, W2IPI, is a regis-

tered professional consultant engineer, member of the AFCCE, senior member of the SBE, lifetime CPBE with AMD, licensed electrical contractor, former station owner and former director of engineering of WTIC(TV) in Hartford, Conn., and WHSH(TV) in Marlborough, Mass. ■



Transmitters

► Continued from page 28

When you are working on a transmitter, no matter your experience level, keep in mind basic steps to reduce your risk of shock.

"Make sure you remove all rings, watches, hanging jewelry and piercings — and don't forget that Bluetooth headset," said Bukont. "Take your cell phone off and put it to the side. Answer this question before you begin any procedures: What am I wearing that could complete an electrical circuit, or restrict my movement if I should slip and make contact with something inside the transmitter?" Also keep one hand in your pocket as you reach inside the transmitter.

"If you have to slog through rain, mud or snow, you might not want to start work on that transmitter in those wet clothes. A change of clothes can help you avoid that risk."

Buggy

What happens if you are at a transmitter site and you find wasps? Your first inclination might be to reach for the bug spray. Bukont says not so fast.

"Insect control is important, but you have to think about the spray you are using. Does it leave a conductive trace (which means electricity can follow that

residue) when you use it around the transmitter? Electrical supply companies sell a spray that is safe around high voltage and kills the bugs just as dead." Never spray directly into live circuits or moving parts.

Bottom line: If you are responsible for the installation of a transmitter and its maintenance, remember that those devices must be treated with a healthy respect for the electrical power and other hazards, such as moving parts, that they contain. Service personnel can be killed if they make contact with certain parts of the transmitter that are energized. Managers need to create a climate where the safe installation, maintenance and repair of transmitters is the rule, not the exception, even when the station is off the air.

"We know time is of the essence," Bukont said, "so build the site to be maintained and serviced without presenting hazards that might slow down the service and present a danger to personnel. If you take care of the site safety basics, the RF safety will follow. Safety is everyone's responsibility."

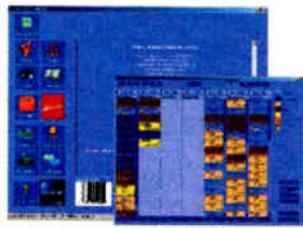
If you have transmitter safety best practices, share them via e-mail to radioworld@imaspub.com.

Paul Kaminski is a Radio World contributor and president/news director of the PK Communications Co. and its Motor Sports Radio Network. His e-mail address is motorsportsradio@mspk.com. ■

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Online Predators in KDMX Crosshairs

*Morning Show Uses a Bogus Web Site
To Lure Internet Pedophiles*

by Ken R.

"The Morning Mix with Tony & Cappy" has only been on the air at Clear Channel's KDMX(FM) in Dallas for about a year and a half. The hosts, Tony Zazza and Aaron Cappotelli, knew they

attention.

"I was sitting at home on a Friday night last January watching 'Dateline NBC,'" said Cappy. "Their report about chat room predators on Internet sites like www.myspace.com just blew me away and I came to work on Monday and told

"DatelineNetCrime: To Catch a Predator" has aired several times on NBC since 2004. With the cooperation of police in several cities, the producers used trained adults to pose as underage girls online to lure more than 100 alleged predators into homes equipped with hidden cameras. The men thought they would be meeting very young girls and instead were handcuffed as they walked in the door.

level of risk they were willing to take for an illegal rendezvous. The KDMX morning duo would soon verify these results themselves.

Setting up the stings

In March of 2006, KDMX set up its own decoy Web page on MySpace with a little help from a relative of Cappy's wife in New York. This young girl was given the password for the fake site and asked to post her picture and a little about herself online. She listed her address as a suburb of Dallas for purposes of this test.



Aaron 'Cappy' Cappotelli



Tony Zazza

had to do something to build their audience but it wasn't their style to resort to bad taste or mean-spirited pranks to get

everyone else about it. I thought it would be great if we could do an exposé like that here."

What makes these shows compelling is how quickly predators responded to postings on the Internet and the high

"Within an hour of setting it up, we had our first feeler from a 30-year-old guy here in town," said Cappy. "He got scared off, but we knew we were onto something."

At about this time Tony and Cappy got a call from the state attorney general's office in Austin, which was holding a series of meetings about online safety.

"We kept Greg Abbott, our Texas attorney general, in the loop with what we were doing," said Cappy. "We even got Chris Hansen from 'Dateline NBC' on the air with us to talk about this."

The second KDMX sting was a little more successful.

"One of our sales girls at the station worked as our decoy this time," he said. "Brooke Sramek pretended to be a young girl, she hooked up with this guy online and then got him on the phone. When they got to a certain point in the conversation, Tony and I jumped in and confronted him. At first he tried to deny anything was going on, even though he had propositioned her to take some nude photographs. He backpedaled and got mad and eventually hung up because he knew he was busted."

Tony and Cappy continued to update their listeners on the air and via e-mail on what they describe as the dangers of Internet sites like MySpace.

"For our next sting Tony contacted a girl we found online, convincing her that he was another 14-year-old girl," said Cappy. "She had no idea Tony was an adult male. We talked online about soccer, what neighbor-

See PREDATORS, page 34 ▶

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When the Spots Come On

What happens when the spots come on?

Arbitron, Media Monitors and Coleman released a study this fall on the impact of commercials on the radio audience, using data from Houston, where Arbitron has deployed its Portable People Meter and Media Monitors provides electronic commercial monitoring.

The report concluded that radio "does a remarkable job of retaining audience through commercial breaks." Among its findings:

- ✓ The industry mistakenly believes radio loses a considerable portion of its audience when commercials run.
- ✓ On average, radio holds more than 92 percent of its lead-in audience during those breaks.
- ✓ Audience levels do not drop significantly between the third, fourth, fifth and sixth minutes of a commercial break (see charts).
- ✓ Younger listeners are more likely to tune out of commercials, but even in that age group audience levels remain high.
- ✓ Commercial breaks during morning drive hold more than 94 percent of the lead-in audience.
- ✓ And listening levels are less likely to decline during weekday commercial breaks than during weekend breaks; even then they remain high.

The authors say broadcasters need to make advertisers more aware that radio is a commercial-friendly medium. Pro-

grammers should focus on building strong brands that generate listener loyalty and not worry too much about the negative impact of running commercials,

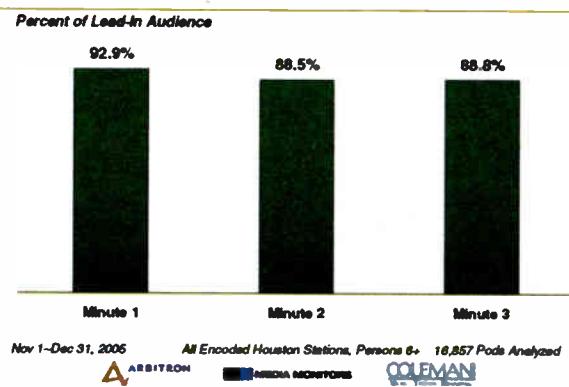
they say; even younger-skewing stations shouldn't fuss over it.

The authors also wrote, "Many in the industry have wondered whether audi-

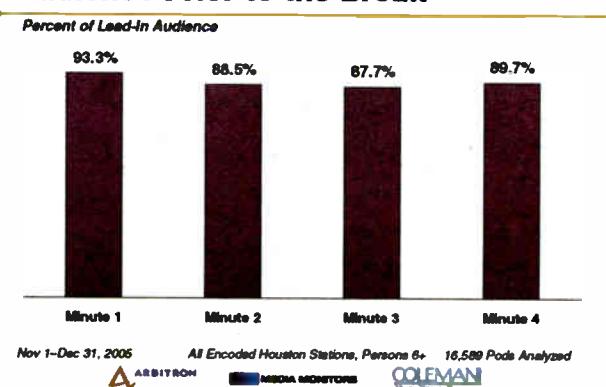
as the third minute, more commercials should be run or that longer breaks are better; they haven't addressed that question yet.

They also feel radio should be cautious about overselling its role as an in-car medium. "We believe this contributes to the overestimation of the amount of

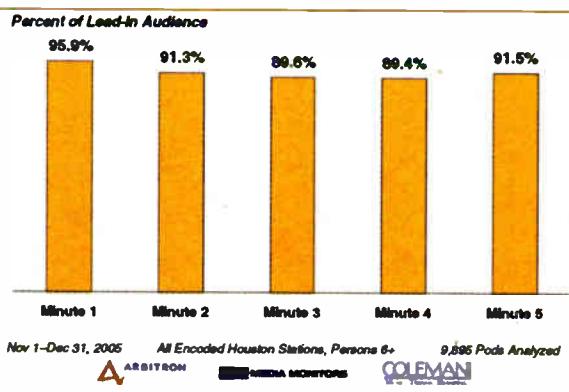
Three-Minute Pods Retain Nearly 90% of the Audience Prior to the Break



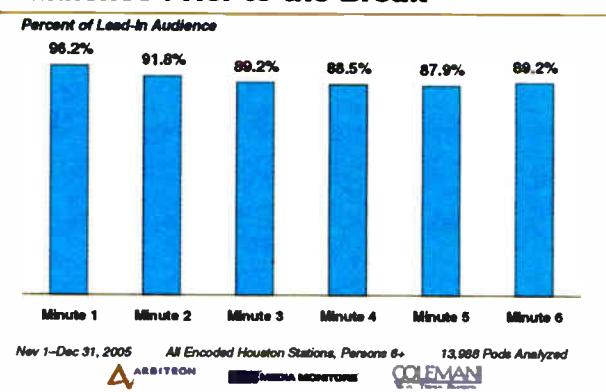
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ence levels would be higher if stations utilized fewer, longer commercial breaks or more frequent, shorter ones. ... This is a subject we hope to tackle in future studies." Broadcasters, they caution, should not assume that just because the sixth minute of a break has the same audience

'button-pushing' that occurs when radio stations air spots, since it is in cars where listeners' ability to change the stations during commercials is greatest."

The report, including methodology and discussion of implications for advertisers, is at www.arbitron.com.

Predators

► Continued from page 32

borhood she lived in and just from those small details we were able to determine where she lived. We drove over to her place and talked to her and her mom and that was great. We played it back on the air."

In both cases, the participants gave permission to broadcast their conversations.

"Parents have called and e-mailed us to say that we're making their kids listen to the show now," said Cappy. "Kids call us who had no idea of the dangers of online predators and they are grateful."

Tony and Cappy's efforts to publicize the dangers of MySpace were recognized with the top honor at the annual Morning Show Boot Camp Entertainment Awards ceremony in Chicago in August. In November Cappotelli told RW, "We are still doing Tony & Cappy's 'Scared Straight MySpace.' We have set up a different decoy page this time and have had more success busting predators and raising awareness."

Cyber steps

Asked for comment for this article, a MySpace spokeswoman declined to be interviewed. But she outlined new company policies that have been instituted this year.

This summer, MySpace added features

which require members older than 18 to know either the e-mail address or first and last name of members under 16 before they are able to connect online. Further, members of any age now have the option of setting their profiles to "private," allowing only friends to view detailed information. Other age restrictions can be placed on profiles to keep those over 18 from viewing them.

But according to Xavier Von Erck, director of operations for www.perverted-justice.com, problems with Internet sites are far from over.

"On one hand, MySpace is one of the only ones that puts any protections in place," he said in a September interview with RW. "Livejournal.com has not even restricted pedophiles from their Web site; at MySpace, you can still lie about your age to circumvent some of these safeguards. But violent predators that lie about their age are in the minority. Most predators are relatively honest and just shave a few years off their age because they want kids to fall in love with them as they really are."

KDMX is raising awareness of the online predator problem but there is much more the Web portals can do to clean up their own houses, he said.

"Anyone, even kids, can still place personal ads on MySpace," said Von Erck. "We did it posing as an 11-year-old, which resulted in 190 people contacting us, males of all ages."

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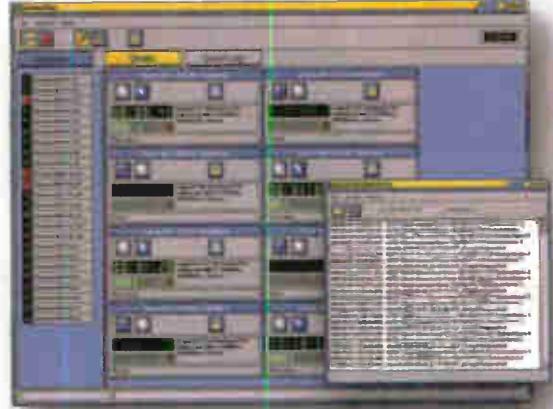
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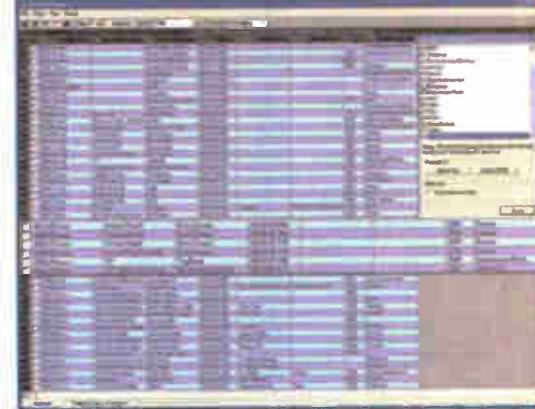
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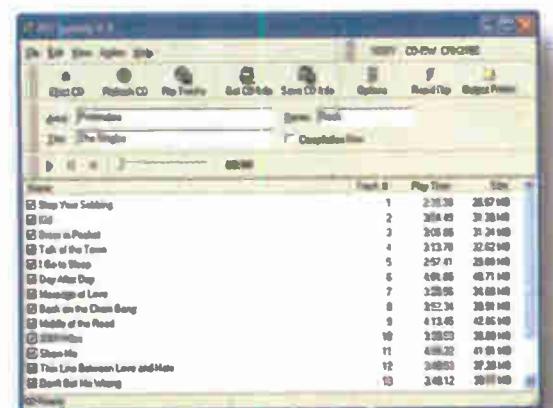
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GreenStone Keeps Women in Mind

by Ken R.

Women have magazines, TV shows and movie channels devoted exclusively to their tastes. Why not a radio network?

"Commercial talk radio has become less about community and more about conflict ... less about improving ourselves and more about being angry at the world." That was Gloria Steinem addressing the Conclave Learning Conference in Minneapolis in July. Steinem has done more than talk. She joined fellow feminist Jane Fonda and a number of radio professionals to finance a talk radio network devoted to women, GreenStone Media.

The Seattle-based network takes its name from an Alice Walker short story, "Finding the Green Stone," about a stone that stays lit as long as the owner is true to his or her own self.

GreenStone investors include retired Susquehanna Media CEO David Kennedy, Intercom Chairman Ralph Guild, former

tennis star Billie Jean King and Quantum Communications Corp. President/CEO Frank Osborn. The president/CEO of GreenStone is former FCC Commissioner Susan Ness.

"We've done our own proprietary studies and looked at Arbitron data," said Edie Hilliard, vice president/COO for the network. "Women are leaving radio because they want something they are not finding there."

In a PhiPower nationwide survey of approximately 1,000 women aged 25-54 who are regular or occasional radio listeners, 74 percent said they would listen to talk radio for women, up from about 43 percent who listen to talk radio now. The most important topics to them: current events, comedy, popular entertainment and health/fitness issues.

the air than from where it comes.

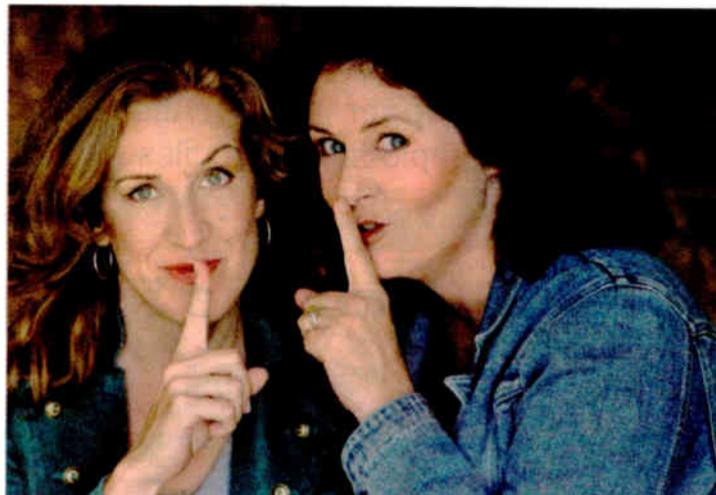
"There are plenty of places you can get music, including FM, the Internet and iPods," said Hilliard. "But music formats can't attract a large enough audience to be profitable. You see a lot of format flipping, which is expensive. We're not saying women don't want to hear music, but those numbers are declining."

GreenStone is staking its future on a kinder, gentler type of radio. You won't hear confrontational talk, but you will hear humor, information and features.

"We want to create a radio environment where women can relax and laugh among friends," said Ness.

Long-time radio consultant Holland Cooke was retained by GreenStone; he believes women are radio's most valuable audience.

"I differentiate between talk radio by women and talk radio for women," he said. "Simply cob-



GreenStone's offering in afternoon drive is the 'Women Aloud,' Shana Wride and Mo Gaffney.



Edie Hilliard

Women surveyed seem to want something different than what they are hearing, as illustrated by comments like these: "I don't listen to yelling, whining or raised voices," and "Sometimes it's hard to listen to radio with children in the car."

Arbitron backs the assertion that women are leaving radio in a trends survey for the period between fall 1998 and fall 2005. According to that report, average quarter-hour shares of women 18-34 are down 18 percent; for women 25-54, they are down 14 percent over the last seven years.

Will it fly?

GreenStone is starting small, with no affiliates in New York City, Los Angeles or Chicago and only a handful of small stations signing on initially. Entercom station WGVC(FM) in Greenville, S.C., was announced as the ninth affiliate in November; other markets include Hartford, Conn., Jackson, Miss., suburban Boston, Flint, Mich., and Ventura, Calif.

"Ultimately we will need about 70 percent coverage in the U.S. and we think that will take up to two and half years to get to," said Hilliard. "We are syndicating individual shows in some cases, but we're hoping most stations sign on for the full 12 hours of daily programming we offer."

As in any startup, the key is what W.C. Fields referred to as "the elusive spendulix," otherwise known as money. GreenStone is represented by Dial Global for national sales. Hilliard said the network has signed one charter sponsor, Fox Entertainment, with more to be inked soon. GreenStone is seeking content and marketing alliances with female-targeted publications; two such pacts having been concluded.

"These may be advertisers who are currently not buying radio," she said. "Many brands are looking for more effective ways to reach women and there are huge dollars available that radio has left on the table."

Virtual radio

The company is decentralized, with two shows emanating from New York, two from Los Angeles and corporate headquarters in the great Northwest. But listeners will be more interested in what is on



'Radio Ritas' are heard mornings. They are Nelsie Spencer, Maureen Langan and Cory Kahaney (from left).

bling together a broadcast day of Dr. Laura, Dr. Joy Browne, Laura Ingraham, Randi Rhodes and anyone else in a skirt is a non-music version of the 'Jack' format, which is a catastrophe. But the research GreenStone did is bullet-proof."

That research showed that women are not as interested in politics and sports as are men. What resonates with the female demographic is useful information, discussion of household budgeting, health insurance, education and raising children. GreenStone is pitching its programming as "new life for troubled FM music stations."

"Terrestrial radio is 20 years behind other media in delivering substantive and entertaining talk programming for women," said Hilliard. "All of our hosts have political opinions but the difference between us and traditional AM talk radio is that we are less about heat, more about light. Less about conflict and confrontation and more about connection."

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STATION SERVICES

Shepherd Launches Venture

Wayne Shepherd, a broadcaster and Christian radio host, launched Wayne Shepherd Communications. It offers voice talent, audio production, interviewing and broadcast/communications consulting.

He is departing Moody Broadcasting Network in January, having been with the company since 1974. Shepherd worked as a WMBI staff announcer and then was division manager of broadcast programming for two decades. For the past six years, he has been host of the talk show "Open Line."

Shepherd hosts programs including "Walk In the Word" with James MacDonald, "In the Studio" with Michael Card, "The Winning Walk" with Ed Young, and the Webcast "Strength for the Journey" with Joe Stowell.

He also will serve as media liaison with WorldServe Ministries.

For information call the company in Illinois at (630) 532-7467 or e-mail wshepherd@ameritech.net.

Dial Global Offers Whitney Allen'

Dial Global Programming will launch "The Big Time With Whitney Allen" in January. The country personality will host a live, five-hour weeknight show.

It will feature country hits, artist interviews and audience interaction. Allen has hosted "The Big Time Saturday Night," which airs on some 55 affiliates and spawned the weekday program.

Stations can affiliate via traditional syndication or through Dial Global's format "Hot Country." Dial Global is owned by Excelsior Radio Networks.

For information contact the company in New York at (212) 419-2924 or visit www.dial-global.com.

Storytelling Is Big Part of Show With Dick Gordon

American Public Media is co-producing and distributing a new daily public radio talk show, "The Story With Dick Gordon," intended for midday broadcast.

The one-hour interview program is produced by North Carolina Public Radio-WUNC. GM Joan Rose noted the "tradition of storytelling" of the North Carolina region and touted the program as "a new and compelling form of narrative journalism."

The premise is interviews with "ordinary and extraordinary people (who) share their personal stories and experiences that provide a deeper perspective on the news." Pilots have been broadcast on North Carolina Public Radio-

WUNC's local network. Pre-launch broadcasts are on KNOW(FM) in St. Paul, Minn. National launch of "The Story" is planned for early 2007.

Gordon was a war correspondent and back-up host for the Canadian Broadcasting Corp.'s "This Morning" and has worked as a Parliamentary reporter, Moscow correspondent and South Asia correspondent in radio and television.

For information contact American Public Media in California at (888) 728-



Wayne Shepherd



Dick Gordon

GM JOURNAL

8728 or www.americanpublicmedia.org.

Talk USA Radio Is New Progressive Programmer

Tom Athans, a founder of the Ed Schultz and Stephanie Miller shows, launched Talk USA Radio, calling it a radio program supplier "that will develop new progressive talk shows in an effort to broaden the format and provide more options to listeners across the nation."

Athans called progressive talk a viable format that has great commercial potential despite the financial problems at his former employer, Air America, where he was executive vice president until

September. "There simply needs to be a credible alternative to Air America to ensure that progressive talk has a chance for success."

He is also the founder and former CEO of Democracy Radio.

"For progressive talk to expand beyond its current audience, programs need to be developed with experienced broadcasters as hosts that focus on entertaining an audience first and informing second," he said in the announcement. "With a strong offering of entertaining and compelling programs, progressive talk can grow and thrive despite the overwhelming presence of conservative talkers."

He expected to launch his new network's first shows by the end of the year.

For information call Talk USA Radio in Washington at (202) 355-1342.

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With the addition of the optional MiniSPL measurement microphone, the ML1 also functions as a Sound Pressure Level Meter and 1/3 octave room and system analyzer. Add the optional MiniLINK USB computer interface and Windows-based software and you may store measurements, including sweeps, on the instrument for download to your PC, as well as send commands and display real time results to and from the analyzer.

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- VU + PPM meter/monitor
- 1/3 octave spectrum analyzer
- Frequency/time sweeps
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DL1 DigiLyzer Digital Audio Analyzer

With all the power and digital audio measurement functions of more expensive instruments, the DL1 analyzes and measures both the digital carrier signal (AES/EBU, SPDIF or ADAT) as well as the embedded audio. In addition, the DL1 functions as a smart monitor and meter for tracking down signals around the studio. Plugged into either an analog or digital signal line, it automatically detects and measures digital signals or informs if you are on an analog line. In addition to customary audio, carrier and status bit measurements, the DL1 also includes a sophisticated event logging capability.

- AES/EBU, SPDIF, ADAT signals
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- Measure digital carrier level, frequency
- Status/User bits
- Event logging
- Bit statistics
- VU + PPM level meter for the embedded audio
- Monitor DA converter and headphone/speaker amp

NEW! AL1 Acoustylizer Acoustics & Intelligibility analyzer

The AL1 Acoustylizer is the newest member of the Minstruments family, featuring extensive acoustical measurement capabilities as well as core analog audio electrical measurements such as level, frequency and THD+N. With both true RTA and high resolution FFT capability, the AL1 also measures delay and reverberation times. With the optional STI-PA Speech intelligibility function, rapid and convenient standardized "one-number" intelligibility measurements may be made on all types of sound systems, from venue sound reinforcement to regulated "life and safety" audio systems.

- Real Time Analyzer
- Reverb Time (RT60)
- High resolution FFT with zoom
- Optional STI-PA Speech intelligibility function
- THD+N, RMS Level, Polarity

MR1 Minirator Analog Audio Generator

The MR1 Minirator is the popular behind-the-scenes star of hundreds of live performances, remotes and broadcast tests. The pocket-sized analog generator includes a comprehensive set of audio test signals, including sweep and polarity signals which work in conjunction with the ML1 Minilyzer.

- Sine and square waves
- Pink & white noise
- Polarity test signal
- Stepped sweep for response plots
- Balanced and unbalanced outputs

MiniSPL Measurement Microphone

The precision MiniSPL measurement microphone (required for the AL1 Acoustylizer and optional for the ML1 Minilyzer) is a precision reference mic for acoustics measurements, allowing dB SPL, spectrum and other acoustical measurements to be made directly.

- 1/2" precision measurement microphone
- Self powered with automatic on/off
- Omni-directional reference microphone for acoustical measurements
- Required for the Acoustylizer; optional for the Minilyzer

MiniLINK USB Interface and PC software

Add the MiniLINK USB interface and Windows software to any ML1 or DL1 analyzer to add both display and storage of measurement results to the PC and control from the PC. Individual measurements and sweeps are captured and stored on the instrument and may be uploaded to the PC. When connected to the PC the analyzer is powered via the USB interface to conserve battery power. Another feature of MiniLINK instant online firmware updates and feature additions from the NTI web site via the USB interface and your internet-connected PC.

- USB Interface fits any ML1 or DL1
- Powers analyzer via USB when connected
- Enables data storage in analyzer for later upload to PC
- Display real time measurements and plots on the PC
- Control the analyzer from the PC
- Firmware updates via PC
- MiniLINK USB Interface is standard



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FIRST PERSON

Mongolian Rural Radio Gains Momentum

by Luke Distelhorst

It was 8 a.m.; there was no power, a hollow roof full of ash and dead pigeons, three crooked poles of different gauges and a cheap Chinese satellite dish that came with the wrong pieces.

At Gobi Wave radio station in Ömnögoví province in southern Mongolia, our options were limited. After all, it is the least densely populated region in Asia.

We had driven 12 hours over demanding dirt tracks to reach Dalanzadgad, the capital of Ömnögoví, only to find our ability to install the new equipment hindered by a uselessly broken power plant.

Radio broadcasting in Mongolia started in 1934, but it took 72 years before the growing number of rural radio stations in the country banded together. In April of this year, representatives from 12 rural radio stations met in Ulaanbaatar with help from The Asia Foundation to improve radio in the Mongolian countryside.

Objective voice

The result of the two-day meeting was the creation of the Oron Nutgiin Radiogiin Kholboo rural community radio association. The Asia Foundation stated that, "Through the ONRK, these stations will produce a diverse schedule of programs that explore local environmental, social and political issues, and seek solutions to them. ... The ONRK will support the development of radio as a free and objective voice."

D. Naranchimeg (Naraa), director of Gobi Wave radio (103.6 MHz), attended the meetings as a supporter of cooperation among rural radio stations, stating, "For herders, radio is the link to the world."

Rural families across Mongolia have extremely limited access to print media, and less prosperous families cannot afford televisions and satellite dishes.

Although it was established in the late 1990s, Gobi Wave did not actually start broadcasting until a grant in 2001 from the Soros Foundation allowed the group to buy equipment and to pay out salaries.

"In the beginning it was hard. We had so little funding we played almost 90 percent music and only 10 percent news," Naraa said.

Crumbling building

Still, the Gobi Wave facilities are in need of repair.

When I noticed the antenna poles were missing from the site, I worried aloud, as we had no other way to mount the new dual dipole antennas on the roof of Gobi Wave's crumbling brick building.

Charlie Mayer, a senior producer with the National Public Radio program "All Things Considered," answered that the pipes had been taken to the only place with power — the power plant — so they could be welded.

Working in Mongolia on a Luce Scholars fellowship, Mayer has been



From left: Charlie Mayer, Simon Mayer, Enkhbat of Gobi Wave and Tamir of VOA

focusing on rural radio in Mongolia, saying, "They make a huge difference in these small communities. They broadcast real news about the people in the community and have no biases ... this is the real reason I came to Mongolia."

Dalanzadgad does have other sources of news; however, they are either owned by or affiliated with political parties. The employees at Gobi Wave feel it is their duty to produce unbiased and objective news.

Tserendulam, a Gobi Wave journalist and mother of three, lives to do her job.

"Of course I could work for a big company and make more money, but then I wouldn't be helping the community," she said. "With this work, I know I'm helping others as well."

"How much do you make?" I asked.

"In a month? 70,000 tögrög," or about \$60. "My husband doesn't work either," she said.

Giving advice

Bill Siemering, one of the founders of NPR and president of Developing Radio Partners, has made 10 trips to Mongolia to work with rural radio stations. In June, he traveled to radio stations in northern Mongolia to lend advice about the growing importance of local, independent news sources.

"What other social investment can have such a broad reach or affect more lives than an effective local radio station?" Siemering said.

Throughout the day during the installation of the new equipment, the citizens of Dalanzadgad constantly called in to the radio station, asking why the station was off the air.

By 3 p.m., the pipes had returned from the power plant, welded and bolted

together in true, jury-rigged Mongolian style. With the tin roof torn open to accommodate the antenna pole and mounting brackets, a process that destroyed a shoddy Chinese hammer, the team was able to install the antenna and still not be late for a meeting with B. Badraa, deputy governor of Dalanzadgad.

Badraa was excited to hear that with the donation of a satellite dish by the U.S. embassy, Gobi Wave could now broadcast Voice of America programming.

For the first time, Gobi Wave now offers international English-language news, programming and music to Ömnögoví and four adjacent aimags.

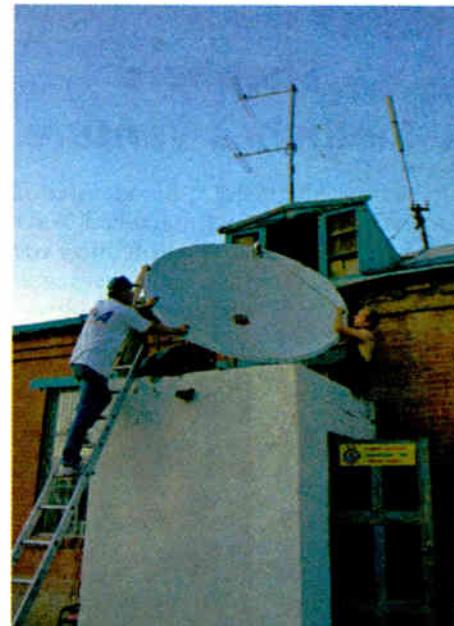
At 10 p.m. the local government turned on a generator to power the whole town, sucking up 1 million Mongolian tögrög, or approximately \$860, worth of diesel per hour.

Now it was time to test the new antenna, Mackie Onyx 1620 mixer and 300-watt Broadcast Warehouse transmitter, all donated by The Asia Foundation. Gobi Wave went back on the air.

But finding AsiaSat 2, the satellite that carries VOA, proved a problem. Tamir, the VOA representative in Mongolia, drove to the local cable station and woke up the lone attendant to fine-tune and spin the dish until 2 a.m. By this point everyone had been working for close to 18 hours.

VOA programming

The next morning, as the staff of Gobi Wave received training on the new mixer and Sony MZ-B100 MiniDisk player, VOA programming aired with the help of a generator. While the citizens of Dalanzadgad still did not have power, the surrounding countryside got its first taste of, VOA News in "Special English."



Tamir and Simon Mayer



Gobi Wave Founder and Director D. Naranchimeg is interviewed by a local TV station.

But Gobi Wave is only one station. Across Mongolia rural community radio stations are gaining a reputation for being independent sources of community, national and international news.

Many of these stations are under heavy financial restraints. Five of the 12 stations in the ONRK operate on an annual budget of less than \$3,000 per year.

With recent donations from The Asia Foundation and the U.S. embassy in Mongolia, Gobi Wave has reliable, modern technology. Ivanhoe Mines Ltd., a Canadian company investing in the Oyu Tolgoi project in Ömnögoví, recently signed a \$4,000 underwriting contract with Gobi Wave, almost doubling its annual budget and making Ivanhoe the first private-sector underwriter of radio in Mongolia.

As we followed sandy ruts through a live ammunition range on the way out of Dalanzadgad, we cranked up DJ Walt "Baby" Love, courtesy of VOA and Gobi Wave.

Ahead lay 370 miles of dirt, dust and sand leading back to Ulaanbaatar. Behind us, however, was one step forward in the development, education and evolution of rural communities in Mongolia.

Radio World welcomes first-person accounts of your experiences in radio engineering, management and ownership. Write to radioworld@imaspub.com.

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Remote Control



WVRC-8 8 Channel Web & Voice Remote Control System

The WVRC-8 provides a cost-effective, one rack-unit solution for web based and/or recordable voice response dial-up transmitter site control. The WVRC-8 was designed from a user point of view, so all of the basic functionality you need is included to control your site equipment, while including the accessories other manufacturers consider optional. The WVRC-8 is equipped with a browser based 100 event function program scheduler and 8192 event alarm logger, while the user may select from four email recipients and a sound effect to play when an out of tolerance alarm is generated. The WVRC-8 is equipped with eight high-resolution analog (telemetry) channels, while each of the eight optically isolated status channels may be configured for 5 to 24vdc wet or dry (contact closures) status monitoring. The eight control channels

are equipped with independent SPST one-amp relays for each raise/on and lower/off function. These relays may be latched, unlatched or momentarily closed. The WVRC-8 is supplied with spoken words and phrases in English, while the user is free to record words and phrases in their language. In addition, the WVRC-8 may be programmed for dial-up operation via HyperTerminal, while the Java applet programming can be performed using your favorite web browser. System expansion may be accomplished by cascading multiple WVRC-8's on the same telephone line and/or Ethernet switch. Future external add-on products such as X-10 modules, Zig-Bee hubs, and AC power controllers may be attached via the BT-Link expansion port. The WVRC-8 is supplied in a 1-RU chassis.



WRC-4 Web Based Remote Control

The tiny TOOLS WRC-4 is a fresh approach to remote site monitoring and control or providing an inexpensive solution to Internet enabling your present remote control system. The WRC-4, combined with web access and your favorite web browser, brings you the following features, all available in this small, but powerful tiny TOOL: A powerful built-in web-server with non-volatile memory; 10/100baseT Ethernet port; four channels each of high resolution telemetry inputs with a large monitoring range; optically-isolated status (contact closures or external voltages) inputs; normally open dry one amp relays; open collector outputs; front panel status indicators, a single front panel temperature sensor and 4-email notification addresses. The WRC-4 is also SNMP enabled. The WRC-4 has been carefully RFI proofed, while including the accessories other manufacturers consider optional. The WRC-4 is supplied with plug-in euroblock screw terminals and loaded with a generic web page that may be edited by the end user. The WRC-4 works with either dynamic or static IP addresses (when used with a dynamic IP, an inexpensive cable or DSL router may be required). Multiple WRC-4s may be used with a user provided Ethernet hub. The WRC-4 may be set on a desktop, mounted on a wall or up to four units mounted on the RA-1, Rack-Able mounting shelf.



VAD-2 Voice/Pager Auto Dialer with Silence Sensor

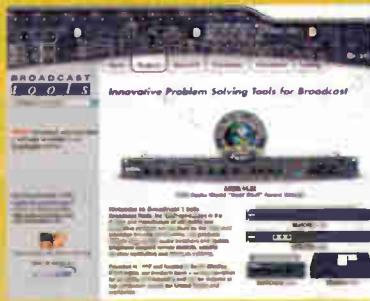
The tiny TOOLS VAD-2 is a user programmable two-input with integrated stereo silence sensor, multi-number voice/pager auto dialer, designed for dial out voice message notification. The VAD-2 has two dry contact inputs and stereo silence sensor, which, when tripped, will sequentially dial up to four different phone numbers and play back a user recorded message corresponding to the tripped input. The VAD-2 is also equipped with two SPST one amp relays for the control of external equipment. The VAD-2 can store up to four 32 digit phone numbers and one 32 digit pager phone number which may be associated with any of the two inputs and/or stereo silence sensor. The VAD-2 is capable of remote or local configuration and message recording with a total recording time of 16 seconds. The two SPST relays may be programmed for momentary, latching or tone duration operation. The VAD-2 may be set on a desktop, mounted on a wall or up to four units mounted on the RA-1, Rack-Able mounting shelf.



AVR-8 Voice Remote Control

The AVR-8 is a voice remote control system that automatically reports changes detected on any of its eight digital inputs to a remote telephone and/or pager. After speaking a greeting message that may identify the source of the call, the AVR-8 then speaks a unique message for each input change. Each message comes factory programmed, but may easily be re-recorded with your own customized messages. After reporting, the AVR-8 allows you to give it commands through your telephone keypad. Functions include telling the AVR-8 to report on the input state of any of the eight digital inputs, commanding the AVR-8 to pulse any one of its four relays for 750 ms and/or turning any one of the relays on or off. When a relay command is given, the AVR-8 speaks the relay 'name' followed by the 'on' or 'off' message. For instance, commanding relay 4 ON causes the AVR-8 to turn the relay on and then report "Relay 4 ... is on." As with the greeting and input messages, the relay 'name', 'on' and 'off' messages may be re-recorded if desired.

In addition to initiating a call out when inputs change, the AVR-8 monitors its telephone line to receive a call-in from a remote location. When a call is received, the AVR-8 speaks a greeting message, and is then ready to receive and execute commands to report on its inputs, change to its relay outputs or turn on an audio input to the telephone line.



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Tune-Up No. 1: Marketing/Promotions

*The New Year Is a Perfect Time to Pause
And Do a Self-Critical Once-Over*

Here and on the facing page, Mark Lapidus offers a special year-end checklist to help assess your promotions and other station strategies.

Aah, January. At last, a month for relaxing. A time for tranquil moments when the phone isn't ringing off the hook and e-mails aren't arriving at five per minute.

That's a nice dream, but in reality, January is the best time for your promotion and marketing tune-up. Here's a handy checklist of items to review next month to ensure your success in 2007.

Database Marketing: You didn't think I'd start the list with an easy item, did you?

Yes, it's time! You need a written plan on how to grow, manipulate and make money through database marketing. Fortunately, growing an opt-in database for a radio station is inexpensive and fairly simple. Simply offer your listeners: 1) Information via e-mail they get before anyone else does. Example: Send them a ticket alert before the information is even broadcast. 2) Information they might have difficulty finding. Example: Effective details about events for kids each weekend. 3) Meaningful discounts on items that are tailored to their lifestyle. Example: a 50 percent off dining-out coupon. If you promote these things on-air and have a simple registration process on your Web site, listeners will sign up.

Your 2007 Review Plan needs to state three things: how often you'll promote your "club" on-air; your projected growth goal (by quarter, so you can track the success of your promotion);

and a sales goal. I don't suggest sending out e-mails more than once a week, except in cases where you've got burning information of impact that will make someone take notice.

As I've written in previous columns, it's essential that your pieces are content-based and not marketing-based. It's okay to have a few reasons to listen to the station, but if every item in your e-letter is about driving listening, your list will not be sustainable. Recipients want

an entire niche that doesn't advertise on radio, so this is their only investment in your business.

Then try this: for these Web-only advertisers, set aside a certain percentage of money from the program's Web site schedule and then "buy" the time from yourself in 15-second spots that feature how easy it is for parents to find a summer camp through your site.

Finally, does your site need a new look? Is it still art-based with lots of big graphics and huge pictures? If so, you're missing the point of the Web today. It is content, not art, that's driving use. Sure, it's gotta look nice, but you have limited

You need a written plan on how to grow, manipulate and make money through database marketing.

to be informed, entertained and treated like a friend, and a weekly laundry list of reasons to listen will only hike your unsubscribe and unopened rate.

Now is also a great time to review the cosmetic look of your e-mail piece. Does it need to be freshened up a bit?

Web site: Your written goals should include increasing page views and the number of pages viewed per visit, as well as how much money you intend on generating via banner ads, streaming, podcasting and — perhaps most important — via integrated Web sales programs.

Radio has been slow to catch on to how effective integrated programs can be in generating page views and unique ad dollars. For example, you create a Summer Camp section on your Web site. Summer camp owners pay you for a listing and a link to their site. This is

real estate to work with. Does your PD still think a flash movie is the first thing your users should see when coming to your Web site? If so, he's living in 1999.

Promotion Scheduling: Review the process of scheduling on-air promos and liners. Has it become too routine for whoever's doing it?

Perhaps that person is even you — and you'd be better off assigning it to someone you supervise who can get excited about it. Be sure to review what you are accustomed to scheduling each week and make sure that those numbers still make sense for this coming year.

Street Tools: Does every station vehicle have a file where you can view maintenance history easily? Carefully inspect your vehicle wraps for wear and tear and have them fixed or updated. Do

Promo Power



by Mark Lapidus

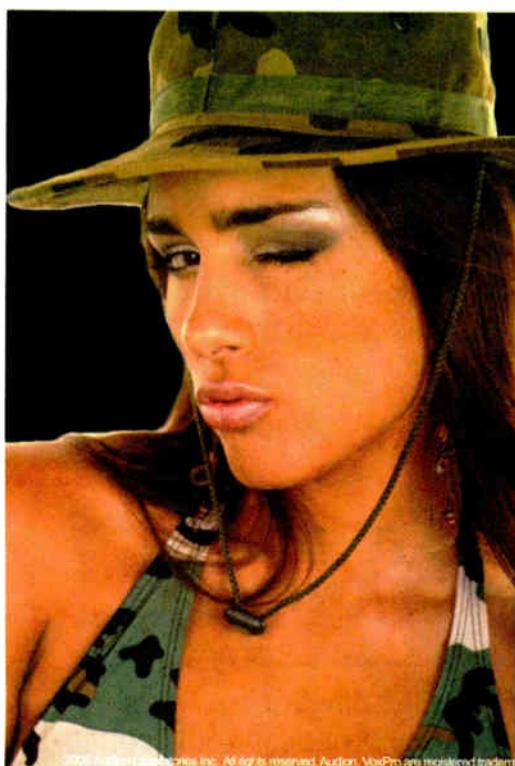
you need to replace the various games you play at sales appearances and events? Don't just assume you don't have the money to do so. Make a list and present it to the boss. Let him know in clear terms that what you have could be embarrassing to your sales efforts. It's amazing how easily money can be found to keep a sales operation running smoothly.

Part-Time Staff: Do you have the right people ready for the event season? Get rid of the complainers and slackers and find people who are really into your radio station's lifestyle and are mature enough to handle actual work.

Marketing Plan: Most important, is your annual marketing plan up to date? You likely started this when you did budgets, but may not have adjusted it when your budgets were returned to you. Make sure that what you have reflects the final budget.

What, you don't have a marketing plan? If so, put this one at the top of your checklist. ☀

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Tune-Up No. 2: Ratings Reality Check

by Mark Lapidus

Now let's review a checklist to give ourselves a ratings reality check.

First, a quick story to illustrate the necessity of the annual Assessment of Reality:

For five consecutive years, the ratings were awesome. Nobody in the organization was openly concerned about the future and the staff took it for granted that the station would always be at the top.

Then, in the format's sixth year, the morning show left unexpectedly. With no bench ready to go, the PD immediately moved the afternoon guy and teamed him up with the traffic lady, with less-than-scintillating results.

This was the first leg of the table to break and we should've awakened to realize that we were vulnerable. However, success — whether real or imagined — is sweet, and few wish to point out that the flower is losing its petals. The next thing we knew, the company cut the budget for music research. After all, does a successful station really need to research its library twice a year?

That was leg number two. The third leg fell when the general manager got mad at the PD about the morning show and fired him. The station collapsed shortly afterward in a sale.

From top to nada. Can it happen to you? In the words of an owner friend of mine, "Oh, believe me, no matter how good they seem or how bad they are, ratings can always go down." What can you do to protect your station from a ratings slide? Your executive team should take a half-day and discuss what we might call a programming "State of the Station."

Grass is greener

The Morning Show — If yours is typical, everyone will agree that the show's ratings could be better. It's a rare market manager, PD or sales manager who is satisfied with morning show ratings.

But if the show consistently garners a greater share than the other dayparts, you probably have a horse worth riding — and training — for quite awhile, assuming, of course, that the rest of your dayparts are healthy.

Don't give your morning show some lame line like, 'We really would like to renew you, but we wanna see how you'll do in the next book.'

While this wisdom is common knowledge, I restate it to remind you not to fall off the cliff when others push you to dump the current show for something that looks like quicker success. Such a show likely doesn't exist.

Another clue to buy: When it comes to contract renewal, reckless hesitation may kill you. Don't give your morning show some lame line like, "We really would like to renew you, but we wanna see how you'll do in the next book." Say that and you might as well cut bait. It will demoralize the show and if they're smart, they'll start shopping the competition or another market.

Without question, where most PDs blow it is by not having two or three shows on the bench just in case misfortune or sour ratings hit the fan. If you wait until the show says goodbye or until ratings stink, you're already too late.

The Music — Don't let anyone tell you that they know the music well enough to skip a music study.

It's hard enough to get decent ratings when the music is researched. Trying to do so based on a PD's or MD's intuitive feeling is absolutely crazy.

At the very least, you need research from a nearby, similar-sized market or markets; but even that isn't close enough to finding out the local truth. Don't kid yourself; it's a song-by-song battle, and when you play music because someone on staff thinks it's cool for your image or his genius intuition says your listeners love it, you lose.

With iPods, MP3 players, satellite radio and audio streaming, being "cool" is unattainable. Is every song the best possible song you can play for the format — or not? If you can't use it, lose it.

Commercial Inventory — Are you airing a significantly larger number of units per hour than your competitors? If so, you will someday pay the price. It may not be this book, or the next, but sooner or later the clutter will hurt you.

Coverage — Perhaps this is a silly question, but are you certain your signal strength is up to par? When was the last time you had this analyzed by an outside party? Are you going to HD Radio soon? Have you discussed construction dates with your engineer to make sure you're not interfering with a key ratings period?

Credit Where Credit Is Due — Finally, a word to market managers and GMs: If you're the proud possessor great ratings, don't underestimate the value of your program director. For some reason, when ratings are good to great, PDs rarely get the credit. It's only when ratings go down that they receive all the attention.

Mark Lapidus is president of Lapidus Media. E-mail him at mlapidas@cox.net.

PEOPLE NEWS

Alvaro Medina was named engineering department manager for IREC (Crown Broadcast). He had been an engineering consultant. Scott Potosky was



Alvaro Medina



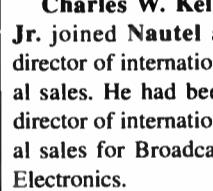
Marc Kellom

promoted to VP of engineering and Marc Kellom to VP of marketing. They had been product development managers.



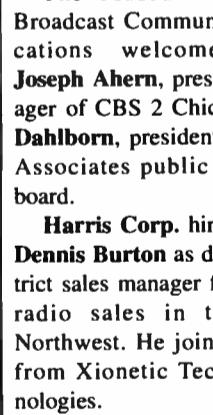
Jorge Garcia Rangel receives the AMITRA 2006 Engineer of the Year award.

Jorge Garcia Rangel of Grupo Radio Mill in Mexico City was named AMITRA 2006 Engineer of the Year. The award provides monetary recognition and a continuing education scholarship and is sponsored by LBA Technology.



Charles W. Kelly Jr. joined Nautel as director of international sales. He had been director of international sales for Broadcast Electronics.

The Museum of Broadcast Communications welcomed Joseph Ahern, president and general manager of CBS 2 Chicago; and Kim Blazek Dahlborn, president of L.C. Williams and Associates public relations firm, to its board.



Harris Corp. hired Dennis Burton as district sales manager for radio sales in the Northwest. He joined from Xionetic Technologies.

Richland Towers added Denise Rolfe as director of new business development. She previously provided consulting services related to licensing and acquiring program content for wireless broadband multichannel distribution.

Dennis Burton

Peter Smyth, president and chief executive officer, Greater Media Inc., was elected chairman of the Radio Advertising Bureau board. Additionally, Greater Media promoted Jim Brown to station manager of WJZ(FM). He had been general sales manager of WMGK(FM). Chris Kirchner replaces Brown; he had been sales manager of WMGK.

XM Satellite Radio named Vernon Irvin chief marketing officer. He joined from VeriSign, where he served as executive VP and general manager for its communications services group.

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♦ READER'S FORUM ♦

Dedicated to a 'Silent Force'

Paul, just a short note to thank you and Radio World for the Excellence in Engineering honor afforded me ("Big Accomplishments in the Big City," Oct. 11). Being able to enjoy the presentation day surrounded by my wife Natasha and my peers is something I will never forget. (My son Matthew could not be there because he did not want to ruin his perfect attendance in school.)



Photo courtesy of Jim Stagnitto

John Lyons credits Joe Losgar, shown, with giving him 'a chance' years ago.

And on the subject of never forgetting, I want to make mention that this award is dedicated to the late Joe Losgar, who gave "the kid" a chance many years ago.

Joe was always one of the silent forces behind N.Y. radio from his days at WWRL(AM) and becoming director of engineering at a fledgling WRFM(FM) in 1953. He helped many of today's broadcast engineers get their start.

To mention a few, Jim Stagnitto of WWPR(FM) went from Bonneville Syndication Services to then-WRFM (now WWPR) and took over as DOE upon Joe's retirement. Richard Kozlak and Dick Schumeyer also are from Joe's stable of engineers, and still in the business today. Along with "Doc" Masoomian, Joe and I were the executive committee of the Master FM Broadcasters' Committee at Empire in the '80s, and I continued to learn from him.

To those of us who knew him and to those of us whose life he touched, we tip our hats and lift our glasses and give Joe a hearty "hear, hear!"

John Lyons
New York

But Does It Work?

Help! How are those of us out here in the world of radio supposed to know what to believe? The two guest commentaries in the Sept. 27 issue ("IBOC Has Been a Mistake," "Say Goodbye to Ancient Modulation") demonstrate my point, and my quandary.

In his article, Ira A. Wilner is telling us IBOC is the best thing to come along

since sliced bread. But Jack Hannold calls it "junk technology." These two points of view seem to reverberate throughout the industry, first on one side and then the other. My question is simple: Does it work? Does IBOC for FM give us enough improvement to justify spending thousands of dollars? And does AM IBOC work at all, particularly at night?

Mr. Hannold says no, and points out that even Bose offers no IBOC receivers for sale. And if Bose isn't making one or doesn't think it is worth the effort ...

He also suggests that we have adopted inferior technology before, in the name of economics or political considerations.

On the other side, Mr. Wilner does make at least one suggestion that is a good idea. In dealing with the problem of hash or interference on AM IBOC he says, "If we redefine AM as a local radio service ... the digital carrier noise issue becomes less problematic." Sir, are you suggesting that large corporations that own 50,000-watt clear-channel AMs are going to give them up? It certainly seems like a good idea, especially to those of us on clear-channel frequencies at low power during the day, and practically no power at night. But is it realistic? Probably not.

Wilner is, however, dead wrong about DXing being dead. There are still plenty of people out there listening for distant signals. I know. I get letters from them wanting confirmation on what they've heard.

One more suggestion is in regard to multicasting. I just can't find any good reason to double or triple the number of available signals out there. We are close to Wichita, Kan., and I must say there are only three or maybe four discernibly different formats on some 24 different stations. Most of them are just variations on a theme. If broadcasters were going to "think new content," they'd have already done it. Or maybe some think they have, but I can't see much difference between "Bob" and "Jack."

So, my question remains. Are the gains of audio "approaching CD quality" (whatever that is), multicasting, and RDS for AM worth the price of diminished AM coverage area, increased interference and thousands of dollars in proprietary new equipment (not to mention patent royalties)? I sure wish somebody could provide a clear, concise, common sense answer. But, with what's at stake that may just be too much to ask.

Travis Turner
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Wellington, Kan.

Write to RW

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◆ READER'S FORUM ◆

Accident Waiting To Happen

Three weeks prior to my writing this letter, a guyed tower went up about two miles east of my home in Northern Iowa. The tower is for a non-comm FM and is 500 feet AGL. I was surprised to see that while it was being erected, there were no lights on it. Once it got to 500 feet, there were still no lights on it; and to make matters worse, it is to be strobed and so it is not painted.

During the day, this skinny little tower isn't even visible to the naked eye unless you are within a mile of it. I went to look at it one day and lo and behold, there it sits, in the middle of a cornfield, no fence, no ID number posted, no transmitter hut, and most of all, no electricity.

Now, I am one of those "old-time" engineers who still follow the rules and regs to the "T," remembering the days where you could lose your First Phone for not doing so. Seeing an unlit 500-foot tower in the middle of an Iowa cornfield eight miles from an airport, and being a pilot, scared me; but I figured the FAA knew about it. About a week later, a pilot friend asked me about it and said he saw it and there were no NOTAMS (Notice to Airmen) listed for it. Obviously the FAA was unaware of it.

I figured I would call Flight Service myself and find out. I didn't have the Flight Service number. It is posted at the nearest station I take care of but I thought I could get it off the FAA Website. No luck there. But I got a number to report hazards to air travel.

I called this and got a "press 1 for this, 2 for that" menu. Finally, I got a "press X to report a hazard to air transportation," and so I did. I actually got a human voice, who told me she has no jurisdiction on tower lights so I should call another number, a toll call from my home. I asked if it was Flight Service and she was unsure.

So I called the number. An attendant in Missouri answered and told me I had to call yet another number in Missouri — another toll number — so I called this one and got a recorded message. I left the message about the tower on the voice mail with the only thing I knew: the coordinates and the height. About an hour later I got a call to my voicemail from a person in Missouri telling me I had to call yet another person in Missouri.

I had had enough, so I called my sta-

tion and got the toll free number for Flight Service, something I should have done from the start. I called and was told that they couldn't do anything without a tower ID number but she would pass the coordinates off to her supervisor.

I find this unbelievable. I am trying to circumvent what might turn into a tragedy, and had to deal with such a runaround that I finally gave up. The FCC field office is no longer around so it appears to me that neither the FAA or the FCC are watching the store, probably thanks to budget cuts in order for the government to provide grants to some college to determine how many quills are on a porcupine.

Remember, next time you call Flight Service and they give you the usual 15 days to get it fixed, remember this tower. It has been three weeks and there are still no lights and the local airport has no NOTAMS from the FAA. I just hope that a piece of the wreckage doesn't come through my roof.

*Ron Schacht
Regional Engineer
Three Eagles Communications
Kensett, Iowa*

Fast and Loose

Recently XM has admitted that, of its 800 terrestrial repeaters, 221 are operating over-power, and 19 of the antennas are not authorized to be there ("XM Getting Repeater Network 'House' in Order," Nov. 8).

It is really frustrating for us "terrestrial licensees" to read things in the press like the comment by Chance Patterson of XM in the Washington Post, "This is not an interference issue." If I hang a pirate antenna and run a few hundred watts off my STL tower to cover downtown better, it's okay as long as it is "not an interference issue"? I'd love to see what the response from the FCC would be if I did it with one of my FMs.

XM continues to play fast and loose with rules that were put in place to protect the public airwaves. In doing so it demonstrates not only a lack of concern for the law but a lack of basic technical and business acumen. If it cannot abide by the most basic FCC and FAA rules, perhaps the threat of license revocation would get its attention? By my math XM is looking at 221 citations and an additional 19 FAA/FCC tower location/registration fines.

EAS on Multicasts

A reminder that the commission will require all digital radio stations to comply with EAS rules by the end of this month. Digital radio (and DTV) broadcasters must participate in all national EAS activations. Participation in state and local EAS activations will still be voluntary, but if you choose to transmit state and local EAS messages on your digital channels, you must do so on all program streams, in compliance with Part 11.

For AM HD Radio and FM main IBOC signals, there's no concern here because digital broadcasts duplicate main channel programming. Multicasts, however, present another question. For multicasts that are simulcasting main channel programming, no action is necessary right now, although when the time comes to populate those channels with unique programming you will have to be prepared to comply.

Multicasts that are transmitting unique programming face this challenge now. At Crawford Broadcasting, for instance, DOE Cris Alexander, an RW contributor, has advised his market engineers that they can use an EAS relay unit to insert the EAS audio into the program stream ahead of the importer or HD2 STL path. "Simply split the output of the EAS unit and send it to two separate relay units." He added tips for setting up EAS operation using a station router.

Sharing an EAS unit with a parent station will result in untimely interruptions of HD2 program audio, Alexander noted, "but that is really no different than a station running with its EAS unit set to auto forward RMTs and activations." Crawford eventually will probably install dedicated EAS units for each of its multicast signals, although Alexander is hesitant to jump in too far while EAS itself is undergoing scrutiny on the federal level.

"We have no idea what it will look like in a year or two," he told his employees. "The last thing we want to do is invest in a technology headed for obsolescence in such a short period of time."

Regardless, remember that your FM multicast, if it carries unique programming, must comply with a new FCC requirement by the end of December.

— RW

If the NAB's David Rehr wants an opening for his new offensive strategy, I'd say this is it.

*Jack Taddeo
President
Radio K-T Inc.
Park Ridge, Ill.*

Lasting Legacy

There was a great letter in response to my column about the Marti remote and the man who gave that program element its name (*Milestone Archives* at RW Online; also *Reader's Forum*, Sept. 27).

It's nice for someone like Mr. Marti to reach this level of seniority and still have many affectionate, supportive friends.

George Marti and other industry stalwarts are joyfully still with us. However I was saddened but not surprised by the news that Mike Douglas had died at 81. I worked with him in Philly on his TV show when it was produced at KYW(AM).

Everyone must die; but it seems like a generation is passing. Engineering giants like John Kraus et al are going to that ultimate hall of fame, we hope.

On reflection, it came to me that in the final analysis, it's not your body of work; it's not how much money you made; it's

not how creative you were; it's not how novel and interesting your specialization might have been; it's really about how many people you positively affected — the true criterion upon which you are judged.

George Marti positively affected many by providing a workable and elegant solution to program interfacing with your community; not to bring them to you in the studio but to go to them: the Marti remote.

Mike Douglas paved the way for many talented people, made many people happy, kept many lonely people company and drew them into a sort of electronic community. Mike may not have invented or perfected the talk/music/varietiy show but his show certainly brought the genre to a new, higher plateau.

One of my regrets is that the world of broadcast engineering is shrinking and there are few to receive the knowledge it has taken all of us a lifetime to amass.

No matter what, our work is still important and has a huge impact on our industry and, more importantly, the people around us in our stations and communities. Maybe today is a good day to think not about what we're doing but whom we're affecting.

*Buc Fitch
Avon, Conn.*

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