



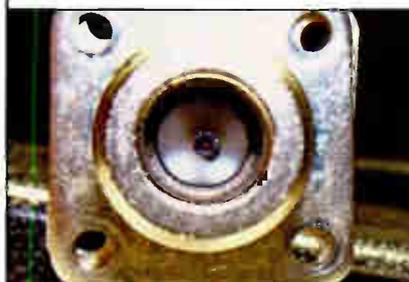
RADIO WORLD

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The FCC Lays Out Its AM Plan

Commission explains steps it wants to take to help radio's senior band

BY LESLIE STIMSON

There's likely no single answer to the troubles of the AM radio band in the United States. Indeed, not everyone agrees AM needs help. But engineers and owners who seek its "revitalization" believe that both short- and long-term solutions are needed if the service will still be around in a decade.

Observers who spoke with Radio World said they were pleased that the FCC released a Notice of Proposed Rulemaking on Oct. 31, explaining steps the agency wants to take to help AM and inviting comments. Among other things, the plan would give every AM station the opportunity to apply for one FM translator to provide fill-in and/or nighttime service.

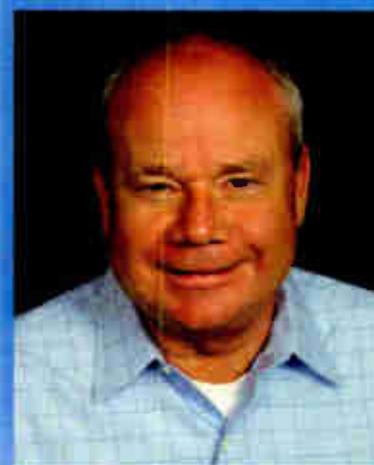
The NPRM was one of the FCC's final acts while Commissioner Mignon Clyburn was acting as its chair; she had promised quick action on the issue at the fall Radio Show, though the government shutdown stalled things for 16 days. She noted a "special affection" for AM because of a friendship with a person at KKDA in Dallas in the early 1980s who helped her get her professional footing.

Clyburn said AM needs the agency's help. "The number of stations is decreasing; AM listenership is dwindling; and young people just are not tuning in."

In the NPRM, the commission stated: "The sustainability of the AM broad-

cast service has been threatened by the migration of AM listeners to newer media." The agency said technical limitations have contributed to that consumer migration.

(continued on page 8)



Marty Garrison Receives RW Excellence in Engineering Award

NPR's CTO and his team led the public network's big HQ move
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Stephen Voss/NPR

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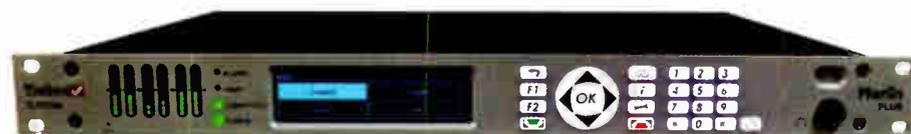
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NEWSROUNDUP

OWNERSHIP: The Minority Media and Telecommunications Council is pleased with an FCC vote to relax the longtime policy restricting foreign investment in U.S. broadcast companies. The commission approved a declaratory ruling saying the 25 percent benchmark is only a guideline and the agency will consider, on a case-by-case basis, deals that would include a larger percentage. The MMTTC said the change will make much-needed investment capital available to struggling broadcasters, particularly minority owners. NAB, too, was pleased.

FCC officials said more guidelines on foreign ownership will be developed and that such decisions will be made with deference to federal agencies involved in national security and trade. The 25 percent constraint stemmed from the 1920s, when Congress was worried about foreign governments using transmitters to disrupt U.S. communications.

In his first public commission meeting as chairman, Tom Wheeler said that despite the ruling, future approvals will be "far from a rubber stamp." Commissioner Ajit Pai had called on the FCC to modernize broadcast ownership rules; he said that until now, foreign investors have been allowed to own portions of U.S. satellite, cable and Internet companies, but that such ownership was all but impossible in broadcast.

ADVERTISING: The local radio market is growing — albeit at a more moderate pace than it had been — by expanding



NextRadio is now available on some HTC, Samsung and LG smartphones from Sprint and Virgin Mobile.

WIDEORBIT: Third-party suppliers are starting to provide support infrastructure for the NextRadio project. Ad management software company WideOrbit announced a radio automation integration that will be available in January. "WO Automation for Radio" will integrate with NextRadio and TagStation to support visually enhanced radio on

the Samsung Galaxy Mega and the Samsung Galaxy S4 Mini. NextRadio app backer Emmis said Virgin, which is part of the Sprint Network, also planned to release a NextRadio-enabled pre-paid smartphone.

NextRadio app downloads and the app has an 83 percent retention rate. Approximately 4,700 radio stations had been tuned to through the app. In future the industry can expect also to hear more about the technology behind NextRadio being integrated in other capacities. "Just like it delivers a rich experience to the smartphone, TagStation can also deliver an enhanced experience to the digital dashboards of the future — a radio experience that fits in seamlessly with the newest dashboard apps and services," wrote Emmis in a blog post.



When I heard about BSW's December Sale, I decided to hold off on hibernating.

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its offerings to off-air platforms, providing a wider range of listener experiences and advertiser opportunities, according to BIA/Kelsey in its report, "Local Radio Stations Profiles and Trends for 2014 and Beyond." It projects total local media spending for 2013 to be \$132.7 billion. This marketplace includes all of the media against which local radio stations compete for national and local advertising spending in their markets. Based on this definition of local advertising, radio stations receive 11.5 percent of advertising revenue being spent in local markets, fourth amongst local media segments behind direct mail (27.2 percent), newspapers (16.1) and TV (14.9).

AD PROFILES: As local radio works to keep pace with digital innovation, the landscape of radio advertisers reveals a diverse group. BIA/Kelsey says local radio generates more than 10 percent of its advertising from five groups of advertisers: retail (18 percent of total radio industry revenue), financial/insurance (17), restaurants (14.5), automotive (14) and technology (10). Nationally, the forecast shows local radio stations receive 14.3 percent of advertising spent by finance and insurance companies and 12.1 percent of advertising spending by restaurants.

SPRINT: Sprint released three more smartphones with FM capability in early November. They are the LG G2,

certain Sprint smartphones. This will allow WideOrbit's WO Automation for Radio clients to deliver music content information and visual ads along with their FM broadcasts to listeners' phones through the NextRadio platform.

NIELSEN: Nielsen laid off some staff at the former Arbitron headquarters in Columbia, Md., in November. It told the Maryland Department of Labor that its reorganization will result in some 333 layoffs. That represents about 40 percent of the former Arbitron workforce in Columbia, according to the Baltimore Sun, which reported Nielsen plans the layoffs in stages. When the merger was announced late last year, Arbitron employed nearly 1,000 full-time workers nationwide; the Columbia complex had 640 full-time employees and 220 part-timers at the time. Nielsen wrote in a statement: "As part of the integration of Nielsen Audio [the former Arbitron], Nielsen is implementing changes across the company to enhance growth and to align our resources to meet and exceed client needs. These changes will improve productivity and innovation for the benefit of our organization, clients and shareholders." Some layoffs had been expected given the duplication of some jobs between the audience measurement companies. In September, Nielsen CEO David Calhoun told investors he projected some \$20 million in synergies from the \$1.3 billion acquisition.

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Garrison Heads NPR Tech Operations

Excellence in Engineering Award winner led the public network's big HQ move

Marty Garrison enjoys leading people across treacherous terrain. He fulfilled that ambition for many years as a climbing guide on Yosemite's famous rock faces El Capitan and Half Dome.

He also likes leading the construction of large broadcast and IT/data facilities, as he's done for several large organizations, including Turner Broadcasting System.

These qualities made him a perfect fit when he joined NPR in 2010, as vice president of technology operations, distribution and broadcast engineering — essentially, NPR's CTO — just as the big public radio organization was about to dig dirt for a new headquarters in Washington.

Garrison is recipient of the 2013 Radio World Excellence in Engineering Award. Recipients represent the highest ideals of the U.S. radio broadcast engineering profession and reflect those ideals through contributions to the industry.

'CRITICAL' LEADERSHIP

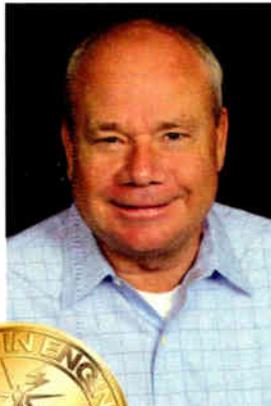
You may not know his name yet because he's relatively new to radio, but

Garrison holds one of the premier radio engineering management jobs.

He heads the technical team that ensures that NPR programming gets on the air and is distributed nationally and globally. The team must keep 17 bureaus going and is responsible for the integrity and technical quality of all its shows.

His staff oversees NPR Satellite Services, which handles distribution for virtually all public radio programming in the United States; customers include American Public Media and Public Radio International, which also produce national public radio programming.

And the department is responsible for traditional back-office IT services at NPR including financial and development systems, email, voice and a worldwide data network. With approximately



200 employees, it is the second largest department at NPR, after news.

Garrison supervised the move of these technical operations to new headquarters at 1111 North Capitol Street N.E., in Washington's NoMa neighborhood, including a new 55,000-square-foot newsroom, new studios and technology and distribution centers that support iconic programs such as "All Things Considered" and "Morning Edition." The move was completed this year.

He and the staff that you see in the group photo at right were responsible for facilitating one of the highest-profile radio build-outs in North America. The project demanded meticulous coordination, a vast amount of detail work and a move that had to be planned down to the minute, even the second.

By all accounts, it was a successful transition; the job was completed earlier than scheduled and created a showcase in the nation's capital for the best that public radio has to offer.

FROM THE EDITOR

Paul McLane



His boss, NPR Chief Administrative Officer Joyce Slocum, told Radio World, "Marty's leadership was critical to achieving the rare result of delivering a project of this magnitude and complexity ahead of schedule and under budget, and to the satisfaction of all constituencies. From production studios for our programming, to computers and telephones for our support staff, to the satellite system for distribution to public radio stations, Marty's teams worked together to ensure that everything functioned smoothly from the first moment."

It was not Garrison's first technical project involving aggressive timeframes and large capital budgets. He was senior vice president of global technical operations for Turner Broadcasting and has held technical management leadership positions with Thomson Reuters, British Petroleum and other companies.

Like many of the engineers we've honored, his career merges traditional broadcast considerations with new media platforms, data networks and IT infrastructure, exemplifying the evolu-

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The technical project team in front of the building after the move to 1111 North Capitol Street N.E. They called themselves TDIG, the Technical Design and Implementation Group.



ing skills needed to lead multimedia organizations.

Garrison is the second NPR recipient of our award; Michael Starling, currently executive director of NPR's Technology Research Center and NPR Labs, received it in 2005. Last year's recipient was Paul Brenner of Emmis Communications.

DATA CENTERS

Garrison grew up in information technology. He worked for BP as an Oracle database administrator in the early 1980s. In 1992, he built his first data centers for

Ingres Corp. in London and Dublin, his initial foray into construction.

Turner soon hired him as director of domestic technical operations and not long thereafter transferred him to London as VP of international information technology, responsible for all aspects of technology service delivery for TBS locations outside the United States.

His biggest job at Turner came when he returned to this country as senior VP of global technical operations.

Broadcast was finally catching up and moving from analog to digital. "We were getting rid of big tape devices and moving essentially to media servers, non-linear editing." Turner recognized this convergence and offered him a job to keep the portfolio of broadcast infrastructure but also merge the broadcasting engineering infrastructure of CNN into that operation.

"It was the biggest challenge of my career, because I didn't really understand broadcast video technology. I had to learn that while winning the confidence and trust of several hundred traditional broadcast engineers, and bring them along into the digital world."

It was a fascinating time, with digital media servers entering an environment where most engineers didn't even have computers on their desks — if they had desks at all, not workbenches.

He led a large consolidation of facilities in Hong Kong that involved Warner Bros., Time Inc., Turner and CNN operations. He subsequently ran a similar project in New York, moving multiple businesses into the Time Warner Center on Columbus Circle. That project required \$30 million of infrastructure investments including one of the first large-scale cross-vendor deployments of VoIP using Cisco network components and Avaya VoIP systems. It was a three-year job during which he commuted from Atlanta three days a week.

The Turner position, he said, "was a heckuva lotta fun, and it positioned me so well for this job later in my career."

Later, at Thomson Reuters in Minneapolis, he and his team of about 1,000 people built a data center every 18 months. So projects involving large

buildings and data operations were becoming commonplace for him.

He was working there when a recruiter called about the NPR project.

TEAM JOB

Make no mistake; the headquarters move was a team effort. Garrison talks about the strong staff in NPR audio and distribution, engineers who perhaps had not built a project of this scale before but had plenty of advanced tech experience. They worked side by side with a relatively younger IT group that hadn't yet built big radio infrastructure but whose role was critical because practically everything in the building runs on the IT network.

"It's about herding cats," Garrison joked. "It was about getting everyone to row in the same direction at the same time, and winning the confidence of some very seasoned engineering professionals, and giving confidence to a traditional technology organization that they could pull this off."

Parts of the move had to be planned very closely. "What gave me the most worry was not building this facility. It was moving a 7x24 radio production operation and a 7x24 distribution system with no down time."

While the new building was under construction a few blocks away, the tech team built a duplicate of NPR's distribution system, the infrastructure that distributes public radio content for producers and stations, including multiple dishes and antennas on the roof.

The staff built the new system first in a building next to the old headquarters at 635 Massachusetts Avenue. They tested the system for months. When the tech core of the new site at 1111 North Capitol was ready, they timed its disassembly, moved it and rebuilt the distribution system, then tested it again.

"At 12:59:10 p.m. on April 1, we pulled the trigger and seamlessly starting broadcasting all public radio in the United States out of 1111 without a

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GARRISON

(continued from page 5)

hitch." Garrison recalled. The feeling? "Goosebumps. We were all in the NOC — the CEO, a lot of people."

Back-office and support groups such as finance, accounting and legal were moved over; studio shows transitioned on a staggered schedule to minimize disruption.

But this being radio, something unexpected could be, well, expected.

As the search for the Boston Marathon bombing suspects reached its climax, the production team handling coverage was working at 1111 but the "Morning Edition" operation was still in its old location. On Friday April 19 — the day Dzhokhar Tsarnaev was found hiding in the boat — "Morning Edition" host David Greene got in his car and drove over to the new studio location while Steve Inskip continued on the air. Inskip came over later. Thus the most-listened-to radio news program in the country could continue its expanded coverage of this national story without an audible hitch.

The total building cost was around \$243 million, of which \$31 million involved the technical aspects. The project came in slightly under budget and was delivered three months ahead of schedule. NPR saved a lot of money by

limiting the cost of dual occupancy.

Garrison is a native of northern California. He has a Bachelor of Science in earth sciences from the University of California, Santa Cruz. He doesn't rock climb anymore but he's an avid cyclist at age 57. He resides with his wife Vanessa in Washington.

Having now worked on at least nine big-scale technology infrastructure projects in Washington, Hong Kong, London, Atlanta and New York, Garrison believes such jobs require skill and tenacity, to work with the aggressive timescales and pressures of a live broadcast environment. Sometimes decisions need to be made quickly and assertively.

"You're dealing with unions, with technology decisions, with taking risks, with planning moves. It's fascinating stuff. I love this job. I love the company. I love building organizations, or transforming organizations. And I just happen to love doing these buildings."

Garrison, 57, also enjoys the satisfaction that his teams feel, especially the less experienced ones. "I have some grey hairs [but] I try to describe to these younger employees how they'll feel when they walk by that building a few years from now and say, 'I was part of that.'"

Comment on this or any story. Email radioworld@nbmedia.com.



Scott Simon smiles following a first live broadcast segment from the new NPR headquarters on April 13.

Stephen Voss/NPR

SCOPE OF THE JOB

A brief description of the technical infrastructure involved in the NPR move.

Audio — Broadcast engineering's side of NPR's building project comprised the build and installation of three broadcast studios, 10 production studios, six production booths, a high-end recording/events space and a centralized technical logistics center. Using digital technologies provided by Lawo North America, facilities are connected via a fiber network that runs on NPR's corporate network, and protected by multiple secure VLANs to a secure centralized Technical Core. Two redundant core audio routers are the Lawo HD73 HDs with controlling software provided by L-S-B'S VSM. Besides basic audio routing functionally, software is configured to automatically restore NPR core programming to member stations with three separate backup audio sources after 12 seconds of silence is detected from the primary source. Audio peripherals include Genelec monitors, Neumann U87 microphones, Tascam CD players and NPR's own asset management System NewsFlex, integrated with audio recording and playback software from DAVID Systems. HA Design Group was the systems integrator. Studio design and architectural services were provided by Bloomfield & Associates. Shen Milsom & Wilke provided acoustical design services. Studio furniture was designed by Bloomfield & Associates and constructed by Studio Technology.

Distribution — The Public Radio Satellite System, managed by NPR, outfitted all of the system's 400-plus interconnected stations with new IDC SFX 4104 satellite receivers. As part of the buildout of the PRSS' Network Operations Center in the headquarters building, engineers installed an upgraded audio routing system utilizing Axia routing technology. The Axia switch incorporates a design that can accommodate 2,025 destinations and 1,012 sources. System monitoring was enhanced using Evertz Microsystems products to manage a video-display wall. The wall uses Ethernet packets and other proprietary MIBS to display readings on encoders, modulators and encapsulators, RF equipment and other carrier measurement tools.

IT — NPR installed an Avaya Aura PBX in the new building in Washington. The Aura platform offers a hybrid solution. Studio and production facilities are populated with TDM phones to provide a higher call quality and greater reliability. A large percentage of NPR audio is still transported using legacy technology such as analog and ISDN BRI. All TDM gateways have redundant power and processors. Staff phones are provided as part of an IP-based solution; they are deployed in one of two configurations. The general population has a Cat-6 that supplies both phone and data; staff that edit audio have separate data feeds for computer and data. Likewise, trunking is a hybrid. NPR uses a mix of traditional T1 PRI, analog loop start and SIP trunking. For the production data network, NPR built an all-Cisco network using the Cisco Nexus series, with FabricPath technology.

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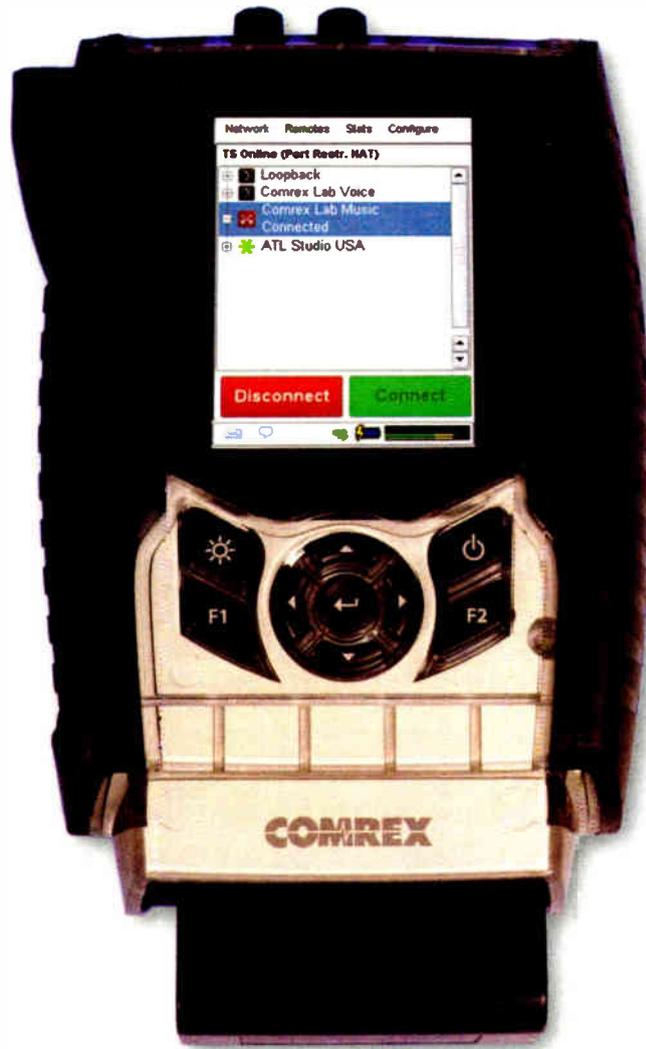
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AM REVITALIZATION

(continued from page 1)

“Today, AM broadcasts provide lower fidelity than other sources of audio programming including FM, satellite radio, personal media players, podcasts and audio streams provided over the Internet. Digital media sources can also provide advanced consumer-friendly features, such as real-time data and information displays, that are not available via analog AM radio.”

Commissioner Ajit Pai, who took up the AM cause publicly a year ago, says the NPRM kicks off a “landmark” effort by the FCC to “energize” the nation’s oldest broadcasting service.

“If you care about diversity, you should care about AM,” Pai said at the fall show. “Most minority stations are in the AM band. Many AMs cover local news and community events when no one else will.”

PROPOSAL

Among planned changes, the agency seeks public input on the special window to allow AMs to seek FM translators. Each applicant would be able to apply for only one FM translator per AM station.

It also proposes to eliminate the so-called “Ratchet Rule,” which effectively requires that an AM broadcaster seeking facility changes that would modify its signal must “demonstrate that the improvements would result in an overall reduction in the amount of skywave interference that it causes certain other AMs,” according to the agency. In other words, the AM proposing the modification must “ratchet back” radiation at the pertinent vertical angle in the direction of certain other stations, according to the FCC.

The commission had adopted this rule to reduce interference but says it “appears the rule may not have achieved its intended goal,” and experts say it has had the opposite effect. Consultants du Treil, Lundin and Rackley and Hatfield & Dawson proposed its elimination in 2009. They said the rule tends to discourage service improvements in general, because a station seeking a transmitter relocation, pattern change or other improvement must reduce power. They feel the rule hurts AMs that have been on the air longest and that therefore have the lowest nighttime interference levels and largest coverage areas, in favor of reducing interference to newer stations that agreed to accept existing interference levels when they began operations.

The FCC tentatively agreed to eliminate the rule and asks for comment on the presumed benefits.

The commission NPRM also proposes to reduce daytime coverage standards for existing AMs.

Currently a commercial AM must

provide daytime coverage to its entire community of license, though the FCC has what it terms a “longstanding policy” to waive the rule as long as the requesting licensee can show the station would cover 80 percent of the community or population within the station’s 5 mV/m contour.

The Minority Media & Telecommunications Council had said the rule harms the public interest because of difficulties in finding suitable tower sites in urban areas; that limits commercial AMs from changing sites and making other improvements, according to MMTC, which leads to a long and costly waiver proceeding. MMTC asked the FCC to change the standard to require a station to provide coverage to 50 percent of its community of license with a signal of at least 60 dBu, the current coverage requirement for non-commercial FM.

The FCC agrees that tower siting for AMs, especially those with directional antenna systems that require multiple towers and land-hogging ground systems, has become increasingly difficult.

It has said in the past that AM coverage of less than 80 percent of the community of license is inadequate and does not want to change the daytime coverage standards for new stations.

However, for existing AMs, the FCC has proposed modifying the daytime coverage standard to either 50 percent of the community of license area or 50 percent of the population with a 5 mV/m signal. It asks for comment on whether this change would provide flexibility for smaller and minority-owned AMs and whether the commission should extend the change to new stations as well.

The commission further has proposed modifying nighttime city-grade coverage standards for existing AMs.

Currently AMs must reduce their power or go off the air at night to void interference to other AMs. However the commission also requires non-Class Ds to maintain a nighttime signal sufficient to cause 80 percent of the area or population within the principal community to be “encompassed by the nighttime 5 mV/m contour or the nighttime interference-free contour, whichever value is higher.”

Effectively, this means a station must continue serving the bulk of their community of license at night even though the rules mandate reduced maximum power levels.

The FCC says it values nighttime service to communities, especially those with little or no FM service, and believes applicants for new AMs or those proposing to change community of license should provide a level of nighttime service. The MMTC argues the nighttime coverage rules make it difficult for AMs to move their antennas.

So the commission has tentatively concluded the nighttime coverage



The FCC released its NPRM to revitalize AM as Commissioner Mignon Clyburn's tenure as acting chairwoman came to a close.

requirement should be eliminated for existing AMs and modified to require new AMs or those wanting to change their community of license to cover 50 percent of the population or 50 percent of their community of license with a nighttime 5 mV/m signal or a nighttime interference-free contour, whichever value is higher. The agency asks for comment on the possible benefits or harm and asks whether it should require the station’s nighttime transmitter site and nighttime interference-free contour to be completely within the predicted daytime protected 0.5 mV/m or 2 mV/m contour, to ensure the station serves at least part “of the area in the vicinity of its community of license.”

The commission also asks whether — rather than eliminating the nighttime coverage rule entirely — it should consider relaxing the requirement from 80 percent to 50 percent for existing stations, as it did when adopting rules for the expanded AM band and as it has now proposed for daytime coverage.

The FCC also plans to allow more implementation of modulation-dependent carrier control technologies, which decrease transmitter power and potentially save energy costs; and modification of AM antenna efficiency standards to allow for shorter towers that could be located on rooftops or in other more limited spaces.

EARLY REACTION

Reaction to the FCC’s proposals has been varied.

NAB President/CEO Gordon Smith praised Clyburn and Pai for their interest in the band. “AM radio is a cultural touchstone and jobs generator in cities large and small. Many of the top revenue-generating stations are on the AM band.” The association “strongly endorses” the proceeding, he said.

Ben Downs, vice president and general manager of Bryan Broadcasting

in Bryan, Texas, and chair of the NAB AM Task Force, was encouraged that the commission sees AM as a strong component of local communities. The proposal for a special translator window “is the lifeline many AM operators have been hoping for,” he tells Radio World.

Ron Rackley, a principal engineer at duTreil, Lundin & Rackley, characterized the “Ratchet Rule” as intended to fight interference but actually being “anti-coverage rather than pro-coverage.” Speaking at the fall convention, he said the rules are “taking groundwave signals that are there 100 percent of the time and forcing them to be reduced when stations make changes in [their] directional antennas to reduce interference that’s caused at a station that’s 100 miles away 10 percent of the time. That’s never made any sense to me.”

Womble Carlyle attorney John Garziglia called the proposed rulemaking a good first step but said the agency could have done more by proposing to relax prohibitions on moves of existing FM translators to where they can better serve AMs; he feels such a change could go a long way toward helping AMs now. Garziglia and his client Bud Walters, owner of the Cromwell Group, have been pursuing the so-called Tell City waiver at the FCC so Walters could move an FM translator further than is now allowed.

Walters too said the waiver is something the FCC can do to help AM broadcasters immediately. “It really deserves favorable consideration by the FCC.”

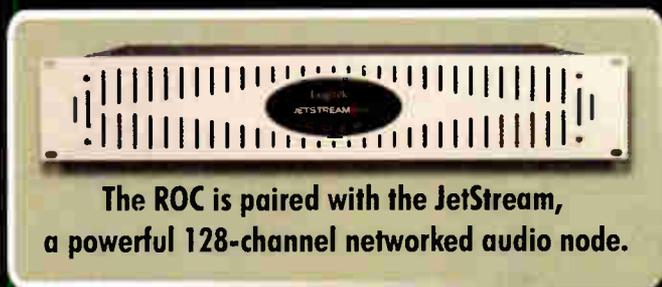
Several sources expressed concern that the NPRM could take a year to wind through the commission’s typical procedures, meaning it would be months — or years — before many of the proposals would take effect.

Walters said the NPRM is a “great idea” overall but feels the FCC is asking many questions similar to those raised

(continued on page 10)

ROC YOUR WORLD

The new ROC console from Logitek



The ROC is paired with the JetStream,
a powerful 128-channel networked audio node.

When Logitek introduced its first ROC console back in the 1990s, it marked a revolution in audio console design. One of the industry's first router-based digital consoles, the original ROC boasted simple wiring and access to multiple sources at each fader.

Over the years, the router-plus-console Networked Audio concept has become the standard in console architecture. Although the original ROC was retired years ago, Logitek has continued to develop systems for both TDM and AoIP audio networking. The new ROC takes the best of the original design and pairs it with the latest technology and styling.

Available in multiples of 6 faders (up to 24), the ROC is housed in an attractive table-top enclosure. Durable Penny & Giles faders, OLED source indication and intuitive controls make the ROC a natural for on-air, production rooms or even in temporary studio setups. Two monitor feeds, front panel headphone connection and user-assignable softkeys will please even your fussiest operators.

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AM REVITALIZATION

(continued from page 8)

in 1988 during an earlier agency attempt to help AM. He worries that implementation of many of the suggestions "may take many years."

Said Downs after the notice was released, "I was very pleased to see that the FCC is asking what the 'next steps' should be. I think this speaks to how well they understand the problems AM stations face and the commission's desire to help." But he hopes the process reaches a conclusion soon. At the fall show, he said, "There are AMs on the edge. If we take 10 years to implement solutions," AM stations "might not be here then."

'NEXT STEPS'

The question of nighttime community coverage standards brings up the contentious issue of skywave protection. CBS Radio Senior Vice President of Engineering Glynn Walden said during a show session that although this is not a formal policy, the company is less concerned about protecting skywave than in the past. "But we are concerned about our groundwave."

The commission hasn't proposed changes to the nighttime skywave protection rules for Class A AMs, but it encouraged comments on the topic, classifying this as more of a long-term proposal that some believe would help AM.

One proposed change — modifying AM antenna efficiency standards that impose minimum requirements regarding effective field strength — will help operators who are boxed in by community growth, Downs said. The MMTC had asked the FCC to replace "minimum efficiency" for AM antennas with "minimum radiation," allowing stations to use short antennas and enjoy more tower siting flexibility. The upshot, MMTC contended, is that such AMs could increase power, use less land and be able to move closer to urban areas, a key factor as land prices are forcing some AMs to move farther away from more populated areas.

In the notice, the agency says the record "is not yet sufficiently developed" to make any radical change, however it does agree with MMTC's overall premise that reducing the existing minimum effective field strength values "would offer AM broadcasters some relief by enabling them to propose shorter antennas." The agency asked for comment on whether it should reduce the minimum field strength values by "approximately 25 percent" or by some other amount and the potential impact, good or bad, on other AMs or the public. The FCC specifically seeks comment on situations in which the current minimum efficiency standards prevented an



Jim Peck

Mike Cooney of Beasley, Mark Denbo of Drinker Biddle & Reath, Ben Downs of Bryan Broadcasting and Glynn Walden of CBS Radio share a moment after their AM panel at the Radio Show.

AM from moving or using a lower-cost or more site-specific antenna system.

Pai said he has talked with broadcasters over the past year and is convinced the proposals can make a "substantial, positive difference" to many AMs.

Until 1978, more than half of all radio listening was to AM, according to the FCC, but by 2010, AM listenership had dropped to 17 percent of radio listening hours. There were 4,728 AMs in the United States as of Sept. 30, the latest statistics available from the commission.

"What steps can the commission take so that there will be a vibrant AM radio service 10 or 15 years from now?" Pai asked. He expressed the hope that broadcasters, engineers and anyone else with an interest in AM radio will submit creative ideas to the commission.

Comments to MB Docket 13-249 are due by Jan. 21 and replies by Feb. 18.

AM IN EMERGENCIES

Only one comment had been filed in the docket at press time; Nick Leggett, an electronics technician who was one of the original petitioners for the establishment of low-power FM radio, told the commission that AM is still a valuable service that provides effective broadcasting to numerous battery-powered portable and mobile radio receivers. "This aspect of AM radio is very valuable in a widespread emergency where electric power is not available," he wrote.

Leggett suggested the agency use AM radio to enable inner-city neighborhoods to provide local neighborhood broadcasts. Such a service would allow minority groups to organize and develop their own neighborhoods and the talents of community residents, he told the FCC, adding that he originally thought LPFMs would have provided this service, but noted the commission recently decided against allowing "especially low-powered stations that could have been accommodated in the urban FM spectrum." Presumably he was referring to a commission decision not to allow 10-watt stations.

For higher-powered AM stations, Leggett also suggests allowing "spe-

cially credentialed engineering firms and individual professional engineers to build and test AM broadcast radio equipment for their customers. This would allow lower-cost competition to the certified (type approved) equipment provided by the current vendors." He also suggests the FCC allow AM owners more flexibility in designing their own antenna systems.

ALL-DIGITAL TESTING EXPANDS

The FCC considers all-digital AM HD Radio technology to be a "more complex reform" proposal that would require "additional comment, research and analysis." The agency called for further comment on all-digital and other longer-term AM improvement ideas, such as modification of the pre-sunrise/post sunset AM operating rules.

A session devoted to AM at the Radio Show brought up the all-digital option. Panelists were careful to note that NAB is championing a "digital sunrise" rather than an "analog sunset" and that the association is not talking about a mandated digital conversion.

An NAB source told RW that technology transitions take time because not all stations can "go at once." Such transitions are best as an "evolution" and not as a mandate, said this source.

Testing of iBiquity Digital's all-digital AM technology continues, meanwhile. Beasley Broadcast Group Vice President of Engineering/Chief Technology Officer Mike Cooney is now head of NAB's Technical Committee; the former head of the group, Barry Thomas, is now director of engineering at Wilks Broadcast Group, which is not an NAB member.

NAB Labs had conducted testing earlier on CBS Radio station WBCN(AM) at 1660 kHz in Charlotte, N.C., as reported here and discussed at the spring show. Now the organization has conducted all-digital testing on Greater Media's WBT(AM) at 1110 kHz, also in Charlotte, and Beasley's WNCT(AM) on 1070 kHz in Greenville.

The data are being evaluated. An engineer close to the committee said, "We're not seeing a clear set of results," due to variations such as different power levels and air chains of stations tested so far.

NAB Senior Engineer David Layer shared audio clips received in Boston, Syracuse and Washington of the all-digital testing. Of the two-day testing on WBT, he said, "As often is the case with skywave propagation, the first night we got a pretty good signal in Syracuse. The second night it wasn't nearly as good."

He said the WBT test was the first time an all-digital AM signal had been put on a Class A station, "so it was the first time we had confirmed that you could receive the all-digital signal over the skywave."

Sources connected with the testing hesitated to make any conclusions because NAB Labs intends to continue the trials.

Layer said he anticipates that, at some point, once NAB Labs has processed all the data, it would come back to the broadcast community with a report. Later, NAB confirmed it hopes to present a paper about the testing at the spring NAB Show.

It's been some 10 years since there was any testing of the all-digital AM IBOC system. Should the agency ever approve implementation of all-digital AM IBOC, it would first need data about the technology's performance.

For indoor tests, the test group used an Insignia Narrator receiver.

NAB Labs is looking for other stations that already transmit the hybrid analog-digital signal to test, especially Class C AM facilities on frequencies 1230, 1240, 1340, 1400, 1450 and 1490 kHz, frequencies not yet used for testing. We've previously reported NAB Labs wants to test on the majority of the band, not just on parts of it.

— Leslie Stimson

HIGH CAPACITY EVENT STUDIO TRANSMITTER LINKS



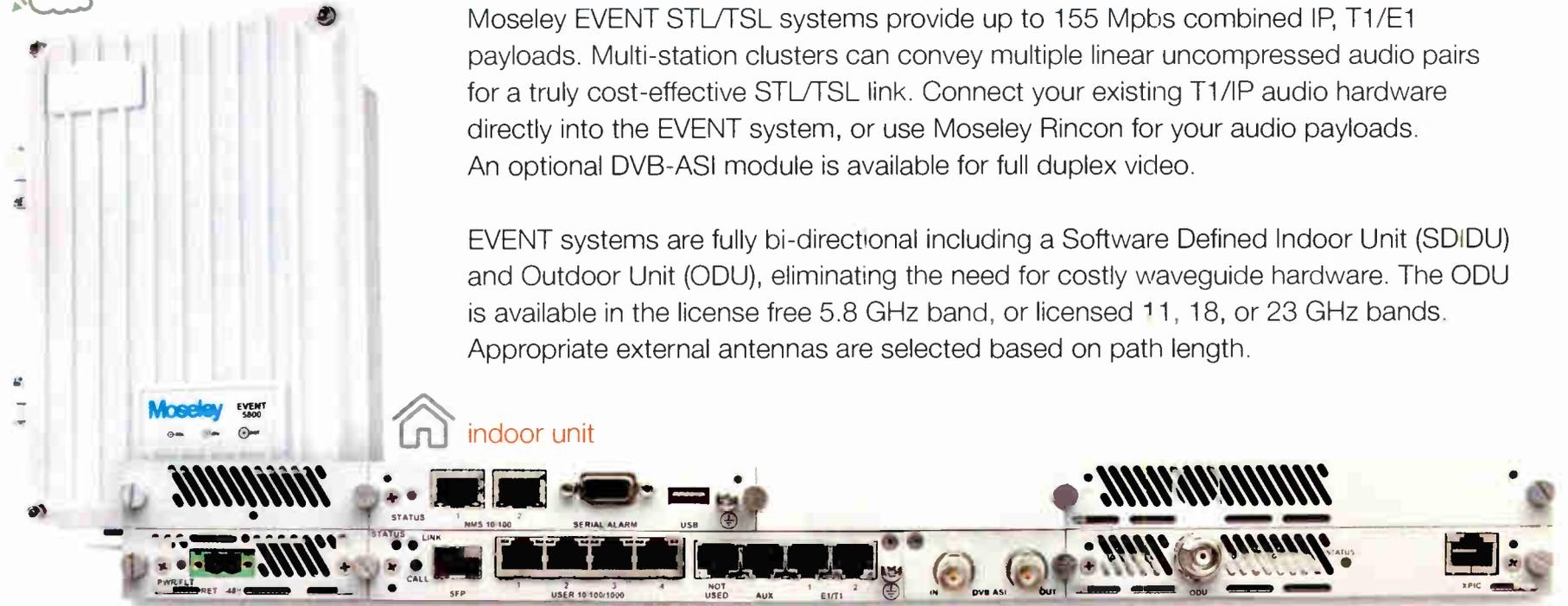
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Connect the DataDots to Fight Crime

Polyester substrate micro-dots can deter theft and identify assets

WORKBENCH

by John Bisset

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At an SBE meeting I attended last year in Missouri, I had a brief chat about preventing copper theft with Engineer Dave Buell, who mentioned an article in a city of Independence news-

with a clear sealer and brushed or sprayed onto the object you want to protect. They can be applied to equipment and even copper. The ID information can be entered into the company's database for retrieval, should a stolen item be recovered.

The city of Independence is using the product to protect copper systems. You can find out more about the Australian

will have to cut the rope to remove it.

After eight years supporting an academic department at a nearby university, Dave is a freelance television engineer once again, his profession for the 20 years prior.

Interchangeability of 50- and 75-ohm Type N connectors is a point under scrutiny.

Yes, a male 50-ohm plug may fit into the female 75-ohm Type N; but damage to the latter may result. A male 50-ohm Type N has a larger pin diameter than a 75-ohm Type N. Also consider the converse; mating a 75-ohm Type N male connector with a 50-ohm female Type N will not yield a reliable connection (if you make a connection at all).

The 50-ohm Type N center pin is approximately 0.065 inches in diameter. The 75-ohm connector pin is 0.036 inches in diameter. In the case of the BNC connector, in most cases the center pin diameter is identical for either 50- or 75-ohm connectors. The impedance conversion is accomplished by changing the diameter of the insulator/pin passage within the connector's body.

Assuming you have not mixed connector parts, you can determine if the connector is 50 or 75 ohms by looking at the size of the hole in the compression nut. Assuming you are using RG-58 or RG-59 cables, 50-ohm cable will be a

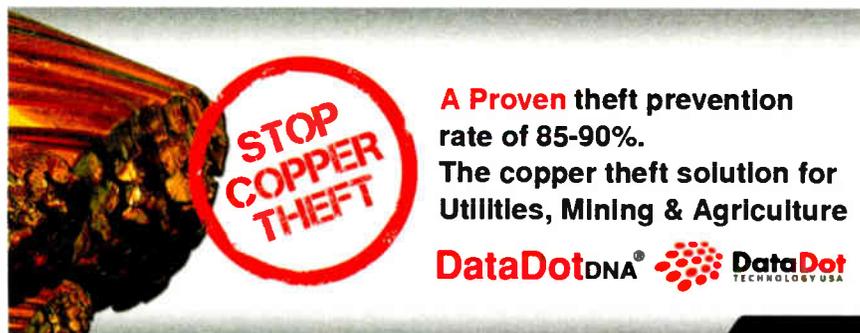


Fig. 1: A promotional image for DataDot Technology USA makes the salient point.

letter discussing Independence Power & Light's use of DataDots to mark the utility's assets.

DataDot technology is an identification and anti-theft security system that its maker says can be used on all kinds of assets.

The product consists of polyester substrate micro-dots, each the size of a grain of sand, onto which information is etched by laser. The dots are described as virtually invisible; they typically are mixed

manufacturer at www.datadotdna.com.

Dave also passes along information about using a constrictor knot to attach sash cord or thin nylon rope to a cable (for instance, to use as a pull string when you want to "fish" the cable through a conduit). Dave uses his index finger to form the knot. Once you know it, it takes only a few seconds to permanently attach a piece of rope to a cable. Dave cautions not to cinch this knot on your finger. Once cinched down, you



Fig. 2: This is a female N connector, 75 ohms, in chassis mount configuration. Note the small center female 'pin' or receptacle.

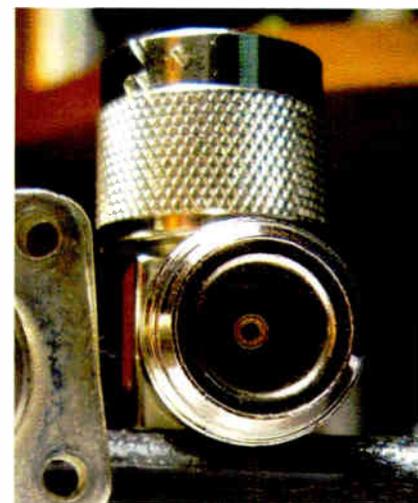


Fig. 3: This is a 50-ohm N connector in a right-angle configuration. Again, note the center female receptacle "pin" diameter, compared to Fig. 2.

sloppy fit through the compression nut; and 75-ohm cable will not fit through the compression nut hole of a 50-ohm BNC compression nut.

At the transmitter site, pay attention to cabling. The FM exciter wants to see 50-ohm impedance. A mismatch will occur if you use 75-ohm cable. You'll see this as reflected power on the exciter, which cannot be tuned out. So don't just grab any old piece of coax for this critical connection.

Thanks to Frank Hertel for this important reminder. He is with Newman Kees Engineering and can be reached at nkeng@insightbb.com.

An engineer called recently about what appeared to be a shorted winding to frame in the modulation transformer in an old 500-watt tube transmitter. Since the transformer frame is grounded, the transformer is shorted and will not operate. His predicament reminded me of a conversation with

(continued on page 15)



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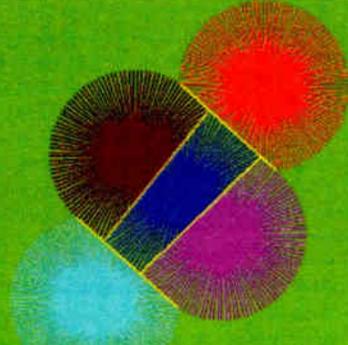
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Standby Power: Basic Equipment or Boondoggle?

Here are some pros and cons to backing up your system

TECHTIPS

BY JIM WITHERS

Five years ago I wrote in *Radio World* about Hurricane Ike, a storm that had aimed directly at my station's transmitter site until it unexpectedly turned north at the last minute (see www.radioworld.com/ike). Severe weather often means power failures — sometimes extremely long failures. In the aftermath of such storms, owners, general managers and chief engineers, even those at stations well away from the impact zone, begin weighing the advantages against the disadvantages of purchasing a standby power source.

Wait a minute. Disadvantages? Are there disadvantages to having a secondary power source available when the grid goes dark?

In many cases there are; but as with many engineering questions, some digging is required to flesh those out. Only by going through that process can you arrive at an educated decision for your station.

PROS

First, the “advantage” side of the equation.

Obviously, the station stays on the air when the primary power fails — a huge advantage and, in fact, pretty much the only one.

But a bit more needs to be said about “staying on the air.” Is that staying on with everything? All studios, main or aux transmitter, production facilities, office space, literally everything? In the top 10 markets, the answer might be “yes,” but even then maybe only at the top-tier stations. The smaller guys might think having enough power to run the necessities — a lower power aux transmitter, a sat receiver and a small cut-in studio — would do just fine.

Also, in the “staying on the air” definition column, you should put the question: “For how long?” Hours, days, weeks? And does the cutover from grid to generator have to be seamless? Or can you tolerate anywhere from a minute of



This generator can easily power a 1–2 kW transmitter and is inexpensive, but lacks auto-start and a changeover switch.

There is certainly no more embarrassing situation for an engineer than to explain by candlelight why the gold-plated Volt-O-Matic generator is, right along with the transmitter, stone cold dead.

dead air (if the failure is during the day), or up to an hour or more (if it fails when no one is around and things need to be manually reset after the generator ramps up and stabilizes)?

The answers to these questions, even for a small station, can mean tens of thousands of dollars difference in cost.

So, with those qualifiers added to the “Advantages” column, we can turn to the “Disadvantages” side of the ledger.

CONS

Of course there is the capital investment to worry about. To run a small Class A FM, or 1 kW AM in bare-bones mode, it might only run \$7,000 or \$8,000, maybe even less. But to keep a 50 kW AM on the air, or a full Class C FM, the price is easily 10 times that much (and way more than that if UPS, auto-switch and power-line sync equipment are included).

If your goal is to keep both the trans-

mitter and studio sites up, you can double the cost. Many stations ignore studio power failure possibilities because urban power grids typically are much more reliable than those out on the top of a mountain, but as was proved in New York City last year, city grids and substations can catastrophically fail.

Next, standby power equipment belongs to the station, not the utility company. When it fails or needs maintenance, it is your budget that gets hit, not theirs. This might seem like a small issue, and perhaps not a disadvantage at all. After all, doesn't all of your equipment need to be maintained? Isn't that just the cost of doing business?

Well, sure, but remember that the standby power equipment serves no purpose at all — until it does. In other words, you are maintaining insurance, as opposed to, say, your automation system. Add to that the fact that the generator sits off to the side (many

times on a concrete pad out in the very weather that makes it “advantageous” in the first place), and its maintenance is sometimes neglected.

There is certainly no more embarrassing situation for an engineer than to explain in the general manager's office by candlelight why the gold-plated Volt-O-Matic generator is, right along with the transmitter, stone cold dead.

Nor is a UPS without maintenance expense. Those batteries are just like car batteries ... they slowly lose the ability to hold a charge, and if you do not



keep track of how long they have been sitting there on constant charge, they will likely last about five minutes less than you need them to when everything goes dark. Hours and dollars must be dedicated to maintaining your backup power source.

A third point is in the “no” category is this: Generators require fuel and space. Small units are usually powered with propane, which simplifies fuel storage, since aboveground propane tanks of all sizes are available for lease.

Of course, the fuel and the lease expense both get plugged in the expense budget. And you *will* use fuel, even if the thing never powers your transmitter for a single second. Most modern generator sets have automatic test cycles, which start the generator and let it run for several minutes on a periodic basis. Many also allow you to exercise the switchover equipment, transferring the



station load to the generator for several minutes or longer and then back again when the test cycle ends. All well and good, except that each test cycle burns fuel and adds cycles to the unit itself.

Finally, if you think thieves like your copper wire, wait until you install a generator. In a building, this is not too big a problem (although I lost a very nice Honda 6.5 kW electric start generator out of a leased transmitter building, which had so many door keys duplicated over the years it was impossible to track the culprit). But a nice 10 kW Generac sitting on a pad next to an obviously unattended block building on a deserted gravel road 20 miles from nowhere is a

A large generator, professionally installed with all the goodies, can cost well over \$50,000.



WORKBENCH

(continued from page 14)

engineering sage Ira Wilner.

Such shorts can be repaired temporarily by isolating the transformer from the chassis ground, using any insulating material, typically a piece of wood. I say temporarily; this “fix” can represent a hazard to an unsuspecting engineer.

So some precautions are in order. First, order the replacement transformer; the fix is not intended to be permanent. Second, make sure the transmitter door interlocks are operational — the high voltage should cut out if the door is opened. Third, place paper warning-labels on both the transformer and the door to the transmitter. I'd use a

thief magnet. You will need to examine site security if you install a generator.

TANKS A LOT

Finally, really big generators are diesel-powered units and those frequently use underground fuel storage tanks. Three letters about that option: “E,” “P” and “A.” A tank sends up warning flares to anyone doing due diligence during a station sale and often triggers an environmental study. Even a Stage One study can be very expensive, so research your options carefully before making any decision to bury a tank.

Above ground tanks are an option, but in cold climates it is then absolutely necessary to keep moisture from condensing inside the tank and freezing in the line, lest you find yourself back to see the GM during his candlelight vigil.

Also, if your station leases its transmitter/tower site, your lease likely controls how or even if, you can use diesel fuel on-site. Often the answer is “no,” but when it is “yes,” it usually costs extra dollars. Nothing is free.

I have run the “I love it, I love it not” standby power equation about 20 times over the past 30 years and have tilted both ways just about equally. The determining factors (for me at least) always come down to two things: utility reliability and listener habits.

How reliable is the primary power? If the station has had, say, three power outages that lasted a total of 49 minutes, it's been off the air due to primary power failure exactly 0.005 percent of the time. (There is also a 70 or more percent chance that those outages came outside the critical morning or afternoon drive time periods.)

Maybe in that case, backup power is not too high on the list. If, on the other hand, your primary power fails twice a month during crystal clear weather, you should probably be pricing generators

broad-tip Sharpie so that the notice is obvious. It wouldn't hurt to put the same warning on the front of the transmitter, too.

The transformer must be unbolted to set on the insulating material; so if the transmitter is moved, the transformer will move, too — possibly damaging the wiring or winding. It's a good idea to add that to the note and eliminate surprises.

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Author John Bisset has spent 44 years in the broadcasting industry and is still learning. He is SBE certified and is a past recipient of the SBE's Educator of the Year Award.

right now instead of reading this.

CHOICES

You also have to ask yourself about listener choices during a severe weather condition. Will they tune to you, or go right to the news/talk boomer? And if they do turn your way, will they hear something local, or just the same old sat feed playing out those Golden Oldies as the town washes away? Now, this will undoubtedly raise eyebrows in some quarters. After all, the “public interest, convenience and necessity” surely includes staying on the air during storms, regardless of audience, right?

Yes it does; I agree 100 percent. However, if your station is way down the food chain, behind the primary EAS station, the news/talk boomer and several other Class Cs with full backup, could your money be more wisely spent replacing a 25-year-old transmitter with a newer, greener solid-state model? Public interest truisms aside, it's a valid question.

Some readers might have noticed I have not factored in advertising dollars. The reason is that in most cases if your power is out, so is a major part of the

market and many advertisers will either cancel their buys altogether, or ask for make goods or reduced schedules. So on the air or off, it is likely you'll take a revenue hit.

As you might have already guessed, there is no right answer to all of this. Either way, you might make the wrong bet. You might decide a catastrophe is overdue at your station, purchase the backup power system and ten years from now, still be waiting to gloat in brightly lit contentment as your competitors wring their hands in the darkness.

Or, you might get hit with an extended outage as the next monster storm rolls through just after you felt so smart not spending \$50K on the Volt-O-Matic. Since there is no way to tell which scenario is in your future, all you can do is do your homework and then decide whether or not at your station, backup power is basic equipment or a boondoggle.

Jim Withers is owner of KYRK(FM) in Corpus Christi, Texas, and a longtime RW contributor. He has four decades of broadcast engineering experience at radio and television stations around the country.

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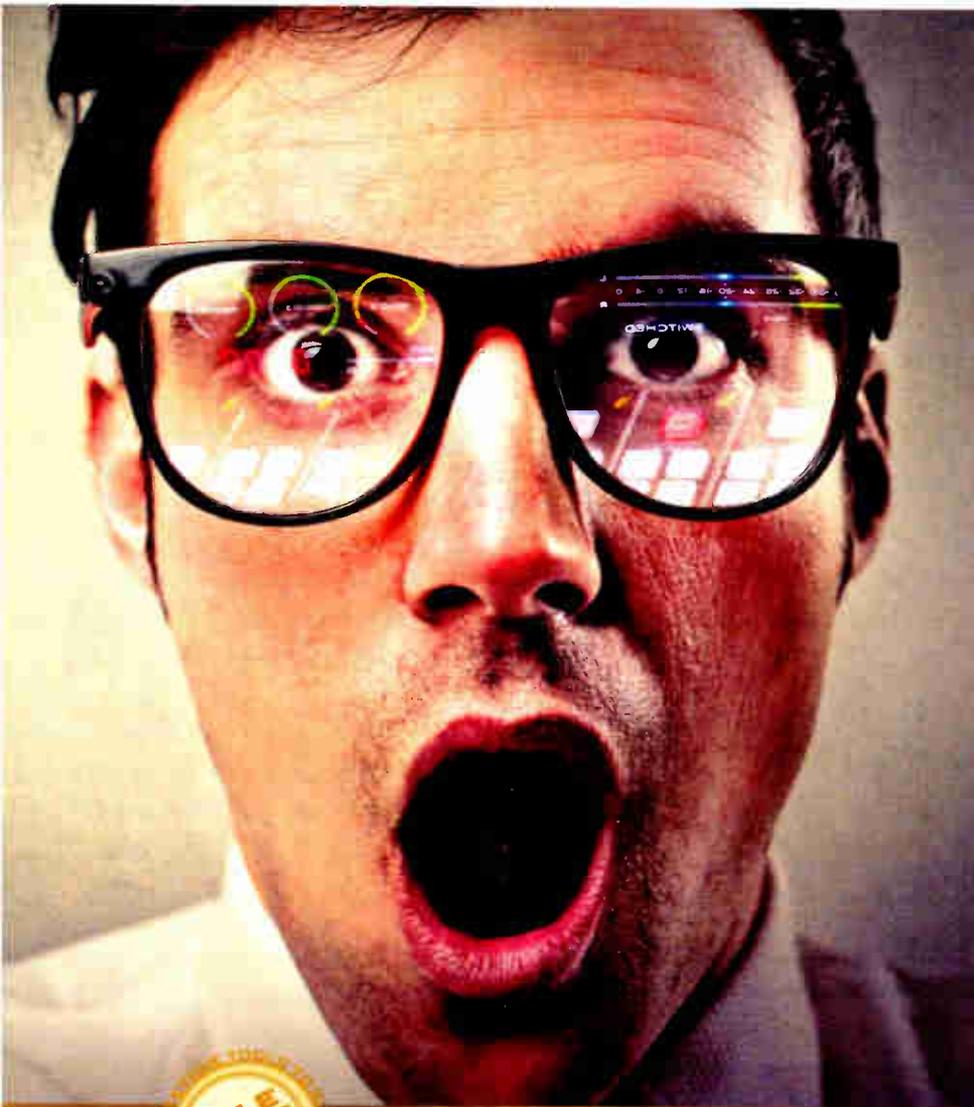
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What You Need To Know About Today's Radio Consoles - Part 1

Every console tells a story...including yours!

We know plenty of broadcasters who have nicknames for their consoles. You might be one of them, in which case you won't hear any comments from us. What you call your board is your business. We just hope that you keep it respectable.

Because with any luck, and a little respect, that radio console will be around for a long, long time. Still, every decade or so it's a good idea to pop your head up from the controls and see what's out there. You might be surprised to learn that consoles haven't changed all that much on the surface, although some of the changes we've made under the hood could make a difference in how big and how cool your next console will be.

Simple Maintenance Tips For Consoles

It doesn't really take all that much to keep your console good as new.

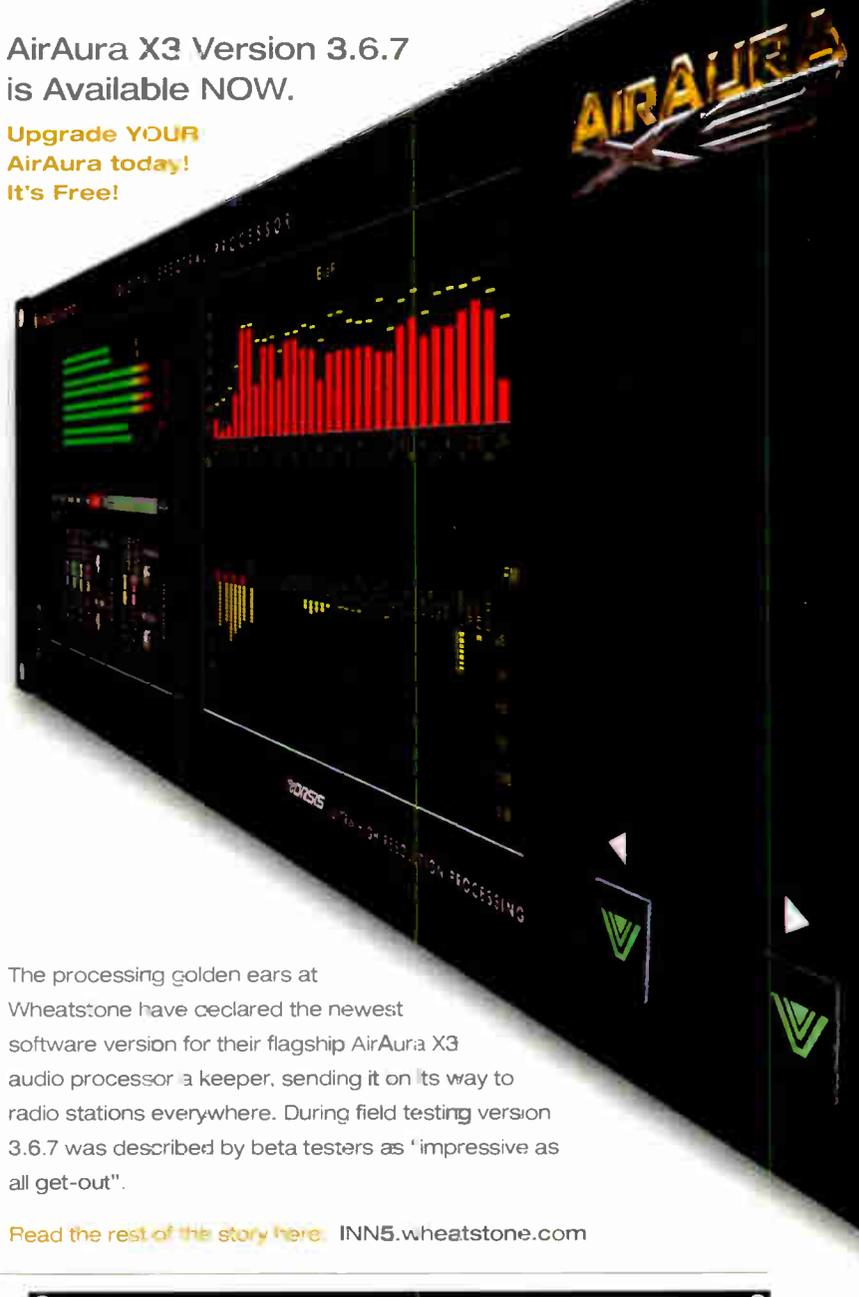


It'd be easy for you to make the assumption that consoles won't last as long as they used to. But you'd be wrong. There's a whole lot of staying power in our consoles, even our smallest one, the Air-1. Which means you're not off the hook as far as maintenance goes. Fortunately, very little maintenance is required of today's consoles.

Read the rest of the story here: INN5.wheatstone.com

AirAura X3 Version 3.6.7 is Available NOW.

Upgrade YOUR AirAura today! It's Free!



The processing golden ears at Wheatstone have declared the newest software version for their flagship AirAura X3 audio processor a keeper, sending it on its way to radio stations everywhere. During field testing version 3.6.7 was described by beta testers as "impressive as all get-out".

Read the rest of the story here: INN5.wheatstone.com

BLADE HONING 101

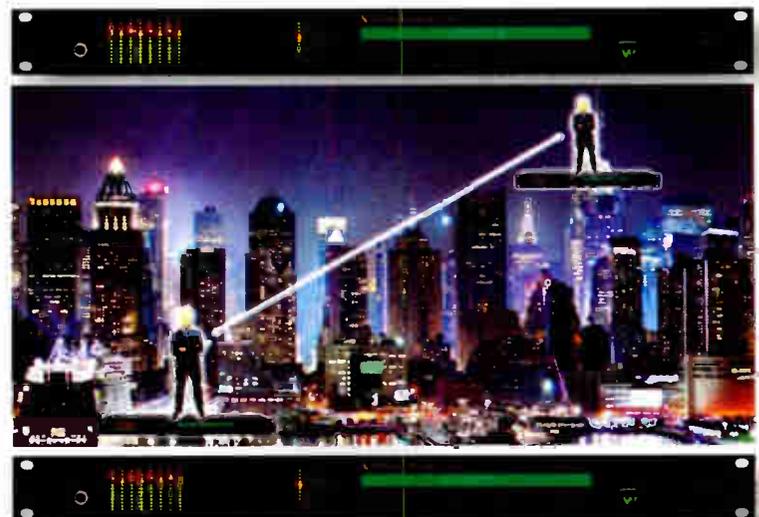
How to Make Your STL Smarter

There's a WHOLE LOT you can do with Wheatstone Net-IP BLADES

BLADEs are one-box wonders. With a BLADE at each end of your STL, for example, you can multiplex up to eight stereo channels over the link, in each direction, depending on the STL.

With silence detection, mixers and other stuff built into the BLADE, you now have a very smart STL. You know those 12 universal logic ports every BLADE has? Those are also carried across the link along with virtual mixers and more to be used for countless purposes.

Read the rest of the story here: INN5.wheatstone.com



MARKETPLACE

WEATHER RADIO: Eton Corp. has built a little niche for itself in the emergency products category. The latest is the ZoneGuard, a portable battery-powered AM/FM radio that receives NOAA weather and S.A.M.E. local emergency messages.

The ZoneGuard radio will also flash and emit warning sounds when local warning messages are activated. It is also programmable so multiple locales can be programmed into it for emergency message reception.

The radio has a Red Cross brand on it and a portion of sales receipts goes to the organization. Here's a thought for broadcasters, buy a bunch of these and slap your station/group/corporate logo on them and hand them out as premiums or sell them locally — preprogrammed for your area. Price: \$39.99.

Info: www.etoncorp.com



ON FIRE: Audio equipment manufacturer Behringer has released a USB 2.0/FireWire interface, the Firepower FCA1616.

The FCA1616 has a variety of ins and outs with the main point being the USB and FireWire connections for working with a computer. Digital specs are 24-bit/96 kHz.



Four Midas preamps are onboard for working with analog microphones and Hi-Z equipment. Each preamp channel offers a high-pass filter, pad and 48 V phantom power. In addition there are eight inserts for outside processing, ADAT optical and S/PDIF I/O.

The FCA1616 ships with Traktion4 DAW software. It is compatible with Windows XP/Vista/7, Mac OSX software. Price: \$499.

Info: www.behringer.com

PEOPLENEWS

The **Broadcasters Foundation of America** has named **Del Bryant**, president of **Broadcast Music Inc.**, as recipient of the 2014 Golden Mike Award.

Harris Broadcast newcomer **Pablo Gargiulo** is now president of global sales and reports to new CEO Charlie Vogt. The new global sales group is organized into four regions and sales executives have been hired to lead each area: North America/**Chris Ziemer**; Central/Latin America/**Nahuel Villegas**; Europe, the Middle East and Africa/**Mathias Eckert** and South Asia/North Asia/**Joe Khodeir** and **JiShun Mei**.



Del Bryant

Bob Struble, president and CEO of **iBiquity**, was named to the executive board of the **Consumer Electronics Association**. Other newly elected members are **Jim Bazet**, chairman and CEO, **Cobra Electronics**; **John Bosch**, president and CEO, **NXE**; and **Joellyn Gray**, director, marketing and imaging division, **Fujifilm**.

The board of the **National Religious Broadcasters** chose **Dr. Jerry A. Johnson** as the association's new president and CEO.

Media rep firm **McGavren Guild Media's** board has appointed **Kevin Garrity** as president and chief executive officer and terminated the employment of **Lisa Sirotka-Sonnenklar**.

Premiere Networks has elevated **Martin Melius** to vice president of affiliate relations and urban programming from senior national director of affiliate relations.

Blue Chip Broadcasting, Ltd., a subsidiary of **Radio One Inc.**, has chosen **John D. Lewis** as vice president and general manager of its Cincinnati radio stations.

NEWBAY ANNOUNCES PRODUCT INNOVATION AWARDS

NewBay Media announced winners of the first annual Product Innovation Awards, honoring outstanding product introductions that serve radio, TV and professional video markets.



Nominations were submitted by manufacturers. Winners were selected by a panel of professional users. Read about all of the nominees at <http://bit.ly/19Ru045>.

Radio Winners

Broadcast Bionics Ltd. PhoneBOX V4 & OASIS
Comrex STAC VIP STAC VIP
DEVA Broadcast Ltd. Radio Explorer II Mobile FM Analyzer
Symetrix Inc. Jupiter 8 Fixed Architecture Standalone DSP
Tieline Merlin PLUS IP Codec
WideOrbit Automation for Radio V3.6

Radio Honorable Mention

WideOrbit Internet Orders Module in WO Traffic
WideOrbit Mobile

Video/TV Winners

Anton Bauer Gold Spec Wireless Series
Blackmagic Design Blackmagic Production Camera 4K
Dalet Digital Media Systems Dalet Onecut
Digital Rapids StreamZ Live 8000EX
Dish Networks Smart Box
DSC Labs Xyla Test Chart
EditShare Xstream
Gefen GefenPRO 32x32 HDFST
Nexidia Dialog Search
Shure VP83F LensHopper microphone
The Switch Switch-IT
Tiffen Steadicam Solo Camera Stabilizer
Wohler Technologies Multiscreen MPEG Monitors

Video/TV Honorable Mention

Blackmagic Design ATEM Production Studio 4K
ClearCom HelixNet
Communications Specialties Fiberlink SDI Beamer
Comrex Liveshot IP Video Codec
Decimator Designs DMON-10s
Digimetrics Aurora FB QC
Digital Rapids Transcode Manager 2.0 with Kayak
Harmonic ProMedia Xpress File-Based Transcoder
K-Tek Nautilus Microphone Suspension Mount
LiveU LiveU Xtender
Matrox Video Monarch HD
Peerless AV PeerAir Pico Broadcaster
Peerless AV Ciil Xtreme Display
Softron Media Services Multicam Logger
Streambox Streambox ME Pro
Teradek Clip H.264 encoder
Thomson Video Networks ViBe EM4000 Encoder
Tiffen Steadicam CURVE for GoPro Hero cameras
Tiffen Variable ND Filter
Video Clarity ClearView Extreme 4k
Vislink NewStream Multi-Mode Mobile



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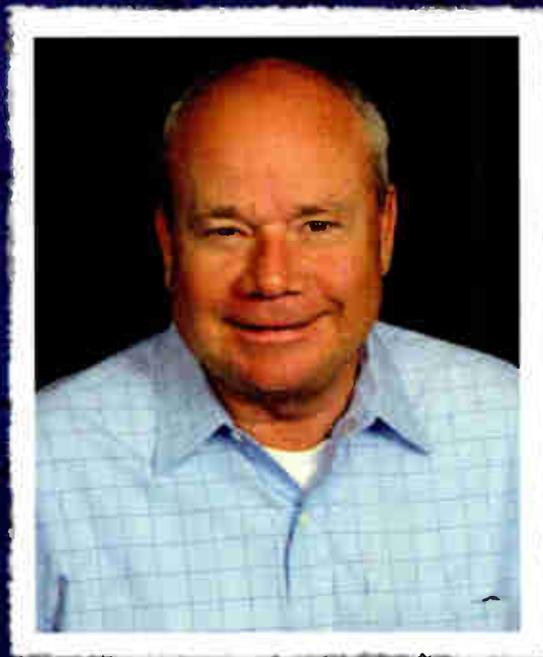
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transform the definition of broadcast
technology leadership.

RADIOWORLD

Avoid These



MANAGEMENT

BY CHARLES S. FITCH

In and amongst a folder of ancient station valuation reports, I came upon a misfiled page from an unknown source listing nine common mistakes made by executives.

One of my “truisms” is that management is not a title but a skill. Too many people think that because they have been given the authority to make a decision, they have the ability to make those decisions.

With that preamble, let’s get to the list. As Mark Twain said, “Always acknowledge a fault. This will throw those in authority off their guard and give you an opportunity to commit more.”

1 SEEING PROBLEMS, NOT GOALS

Skilled managers wade into a problem with the focus on *what*, not *who*, is wrong. If you’ve surrounded yourself with competent people, the culprit for your inefficiency or dilemma likely involves process.

Make sure your employees know explicitly what is expected of them and the best ways to accomplish those things. They’ll usually meet you there.



Executive Mistakes

Buc Fitch on how to treat your staff right

2 MISSING THE LONG-TERM PICTURE

The “boss” leads staff to get things done right now. The “manager” knows where he or she is taking everyone in present tense but more importantly in the future — to that ultimate business destination. The “owner or the corporate officers” must know what’s over the horizon for the organization, and have a plan to take everyone to a successful and growing future.

If you have no vision of where your organization must travel to prosper and grow, your days may be numbered.

3 OPERATING WITHOUT ROUTINES

I found an apropos saying in a fortune cookie: “Every truly great accomplishment appears at first to be impossible.”

Football players at two major universities run onto their home fields by passing under signs that say, “Play like a champion today.” Each of us should pass onto our business playing field under a sign that says, “Think quality today.”

Quality in execution is what sets organizations apart, the good and the bad. Staff needs to know what is expected of them in the way of goals and deadlines and how best to accomplish this and meet organizational standards. Quality should be routine.

In my radio ownership days, we had manuals for operations at each and every station, covering contingencies. One was the “shift manual.” Some employees worked alone outside of office hours, and the “shift manual” acted as a kind of written supervisor,

listing duties, tasks and details for each shift and work position. It explained how to get the work done and acted as a security blanket for staff to know their job expectations.

Occasionally a person would be put into an odd shift. Because the people who worked for me were bright and aggressive in wanting to do their best work, the “shift manual” often was a good substitute for training.

4 HOARDING AUTHORITY AND RESPONSIBILITY

This style of supervision stifles expeditious execution of work. Staff cannot do their jobs until you make a decision and/or they cannot take the responsibility of independent action because that’s your prerogative. This is like hoarding credit. You let the glory of success come to you while delegating the onus of blame to your staff for failures. If you desire a staff to dislike you, this is the best way to do it.

To be effective and celeritous, empower your staff to take ownership of issues within their job parameters and use their best judgment whenever possible.

5 LETTING THE GRAPEVINE TAKE OVER

One of America’s only remaining manufacturing plants is the gossip mill.

Rumor is fact until dispelled; the time your staff spends speculating is wasted energy. Get the facts out and stay ahead of intrigue. In the transaction environment of any business or organization, it is also a matter of respect to share as much accurate information that affects people as soon as appropriate.

Erroneous information and the resulting doom-and-gloom environment can cut deeply into productivity. The best managers want team leaders and sectional heads to query them when rumors appear, to keep everyone informed and confident that the status quo, and their position within that, continues.

6 KEEPING THE STAFF IN THE DARK

What kind of information should you share with staff? Information that you know for certain and can tell them accurately.

Some information is sensitive and/

or still in development. Occasionally, information must be kept back temporarily, of course. But to keep your staff “off step” and without goals, or without being aware of purpose, is wasteful.

7 HIRING OR KEEPING THE WRONG PEOPLE

I’ve met too many personnel people who are interested mostly in covering their own butts. The selection process for their new hires never seems to be an evaluation of an individual applicant but an evaluation of outside approbation.

I saw an organization choose the director for an important TV commercial based on the school where the director got his degree. A degree never directed a TV commercial. Another candidate was highly skilled and had created several classic TV commercials — we’re talking CLIO Awards. But that person wasn’t Ivy League and so was not even considered. The final commercial was uninspired, almost sophomoric.

8 BUILDING AROUND INDIVIDUALS INSTEAD OF A TEAM

Of all the shortsighted strategies and management policies, this has to be the worst. Every capable manager builds skills in his or her team, and quite often one member in particular shines. But to make that person uniquely invaluable and the sole repository of the information or accomplishment of that part of the mission is an error.

First off, it is unkind to the person to typecast him or her, as his or her future often stops right there.

Second, it is dangerous to the business that someone can walk out with that section of the business, from financial figures to their unique knowledge or personal relationships with your customers.

If you have these situations, start building alternatives such as training to cover over vacations or cross training that person into another job so they have to share and train their existing work with others.

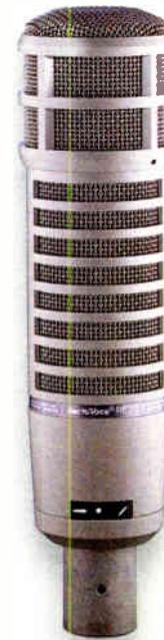
9 FAILING TO DEVELOP AND MOTIVATE PEOPLE

We are still in a time of “the greater fool.”

(continued on page 22)



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Big Sales Pitches Take Time

Program directors should give sales staff a generous head start

It starts like this: The program director walks into the general sales manager's office with what he says is an amazing sales opportunity. While the concept is a really good one, there is a problem: The program director has given the GSM just 10 days to sell something that would normally carry a substantial price tag.

Had the GSM been presented with this opportunity six weeks earlier, she could have sold it for \$10,000 — but on such short notice? She'd be lucky to get a client to shell out even \$1,000.

The PD, as usual, seems stunned that this is even an issue. Later he complains to the market manager that the sales staff isn't capable of selling under pressure.

This scenario will repeat itself countless times this coming year unless PDs plan and understand that it takes time to sell anything conceptually.

SALES IS HARD

Why does this happen so often?

Unfortunately, program directors rarely are exposed to the sales process. Because selling belongs to another department, they don't look at sales as having much to do with their world.

It is essential that program directors get the bigger picture. Exceptional program directors ask the right questions on their own, of course; but sometimes it takes a superior market manager who forces her PDs to learn about the sales process.

I had been in radio on the content and marketing side for about 15 years before I was pushed by a forward-thinking market manager to attend a "needs analysis" seminar that filled every minute of its three-day schedule.



That seminar opened my eyes to what it takes to uncover a client's requirements, build a plan to meet those needs and then actually close the deal.

While it's difficult to distill the sales process for content people in a short article, here are a few tenets that, when believed, are easy to understand. I emphasize "believed" because often PDs will hear the process described but won't give credence to the information until they've received formal training — or until they have at least gone on a few sales calls to see the process for themselves.

EARNING THAT MONEY

The basic fact is that there are absolutely, positively zero clients who have stacks of cash sitting in an office drawer

collecting dust, just waiting for a radio sales person to come along and ask for it. As at your company, clients live and work with an actual budget. This is as true for the small retail places of business as it is for major corporations.

When a sales person presents an opportunity for sponsorship, the client must have time — weeks sometimes, even months — to consider the proposition, ask questions and often filter information through the people who will be

MISTAKES

(continued from page 20)

A greater fool looks at a broadcast property that is successful, well managed, mature in the marketplace and a credit to everyone who works there, yet sees ineptitude and underperformance. The fool sees possibilities for endless growth that can only be effected by his or her unique vision and leadership.

The fool doesn't understand that people — people with energy, focus, commitment and skill — bring real success. Staff are the most important part of the equation.

The most satisfied staff feel like they are learning and growing, that they are on a journey to personal success and are appreciated for who they are and the work they do.

If you don't develop an environment where people develop new skills or enhance their existing capabilities — if all they have is the present — in their mind they're just

PROMO POWER



Mark Lapidus

affected by this decision.

This is even more cumbersome when dealing with an advertising agency that represents clients.

Another vital element is almost always a preexisting relationship with the client, as it's nearly impossible to cold-call them with conceptual sales ideas. Trust, developed over a lengthy time period, opens the door and gives the sales person the perceived credibility to point out the value proposition.

When sales reps know their client(s) well, they understand what interests them and how much pressure they can apply to close the deal if it's getting close to decision time.

The number one thing a program director can do to help his general sales manager maximize sales opportunities is to create a solid 2014 calendar of events, activities and promotions, many of which, I hope, can be sold to clients.

PDs must remember that it's not only ratings that drive a commercial radio station's success; those ratings must come with the sales necessary to drive profits. At the end of the day, this is about everyone's job security, peace of mind and mutually beneficial future.

Mark Lapidus is president of Lapidus Media and a longtime RW contributor. He can be reached at marklapidus@verizon.net.

passing through.

Motivation in American business is usually compensational. How are people compensated? One, in salary and benefits that are competitive and related to job goals. Two, through work that they love to do. Three, through the self-esteem that comes from recognizing them as having earned their spurs. You let them know that they are important to you and to the work effort.

There is no mystical science or knowledge required in order to be a skilled manager. One must keep his or her ego under control, then build good habits implementing sound management principles.

Charles S. Fitch, W2IPI, is a registered professional consultant engineer, member of the AFCEE, 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 WSHH(TV) in Boston.

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MARKET PLACE

COMPATIBILITY: Wheatstone recently completed testing of its baseband192 digital signal technology with transmitter maker Broadcast Electronics.

The test equipment was a BE STXe60 exciter (shown) and a Wheatstone VP-8IP processor. The exciter



passed the digital baseband192 signal, indicating that it is compatible with Wheatstone's digital signal technology.

Wheatstone explains:

"Baseband192 is a 192 kHz sample rate, pure digital interface. The baseband192 signal represents the FM processor's entire stereo multiplex spectrum — including most subcarriers. The stereo multiplex signal remains in the digital domain after stereo generation so there are no D/A conversions, no sample rate conversions and no imperfect analog circuitry standing in the way of a perfect handoff of the stereo baseband signal to the FM exciter."

BE Senior Software Engineer Wes Keene was quoted saying that this "theoretically perfect interface" produces pristine audio on the air, justifying the time broadcasters spend working to find purity in their audio chain and tweaking processing.

Wheatstone says that baseband192 is a standard feature on new orders and as a free software download for existing AirAura X3, FM-531HD and VP-8IP audio processors. It can be used with any second generation BE STX line product.

Info: wheatstone-processing.com, www.bdcast.com

THAT'S THE SPIRIT: Focal Professional, a high-end monitor manufacturer, has a set of headphones available called Spirit Professional

The padded circumaural design features a 40 millimeter Mylar/titanium driver in each cup. The padding in the ear cushions is memory foam so they should retain their shape, even when stuffed in a case.

The detachable coiled 12-foot cable is made from oxygen-free copper and ends with a 1/4-inch connector. Focal specs the 'phones at 5 Hz–22 kHz. Price: \$349.

Info: www.focal.com/en

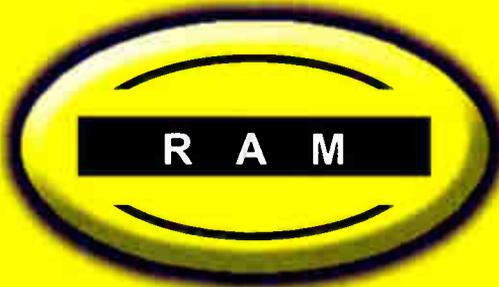


BUNDLED UP: DAW software developer and hardware maker SADiE issued a couple of product announcements.

One is a bundling of SADiE 6.x DAW software with Prism Sound's Lyra USB audio interfaces (the Lyra 1 is shown). The Lyra provide various input options (ADAT and S/PDIF included) along with 48V phantom power and 20 dB pads. The units will work with Windows (64-bit as well), Mac and Linux.

SADiE's current 6.x.x software is now up to 6.0.7. It is described as a service update and is a free update.

Info: www.sadie.com



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Sound Forge Pro 11 Adds Useful Tools

Audio restoration kit is among highlights in the latest 'whole number' version

PRODUCT EVALUATION

BY DAVE PLOTKIN

Every so often Radio World asks me to review audio editing software that is designed or suitable for the radio production or creative director. I must admit that it's exciting to tinker with new plug-ins and see how well the program performs in a real-world environment. You may remember that I shared my thoughts earlier this year on Sound Forge for Mac (see radioworld.com, keyword Plotkin). Now, it's time to look at the latest edition of Sound Forge for PC — Sound Forge Pro 11.



Sound Forge Pro 11, showing the main screen and numerous tools.

PRODUCT CAPSULE

SONY CREATIVE SOFTWARE
Sound Forge Pro 11

Thumbs Up
+ Excellent De-Clipper
+ Floating plug-in chain
+ New record options window

Thumbs Down
– Still no multitrack capabilities

Price: \$499.95

For information, contact Sony at www.sonycreativesoftware.com.

in day-to-day production duties. Sound Forge boasts that it can be used to help comply with the CALM Act; for our purposes in radio production, I don't think it benefits us. It may be if you are in video production. For an audio forensics junkie such as myself, it is fascinating to watch.

PLUG ME IN

Major improvements have been made in not only the plug-ins themselves but the plug-in chain, as well.

Plug-in chains can play a big role when creating or mastering a piece. They are key to shaping the sound of your creation. The chains allow the ability to rearrange the order of effects that are put on a track or can add/remove a desired effect. Unlike previous versions of this program, Sound Forge now has the ability to click away from the plug-in chain so you may edit or adjust the track you are working on. If a user likes a chain that has been created, it's easy enough to save it for future use. Users can also work on different plug-in chains associated with different tracks in another window. To all current Sound Forge users, this is a huge improvement to work flow.

Other new and improved features of Sound Forge Pro 11 are the audio restoration tools. I'm a collector of 78-rpm disks and this is a field near and dear to my heart. I am thrilled to see a multitude of presets in the De-Noiser and De-Clicker ... even some geared for 78s. The De-Clicker did a pretty solid job of removing crackle from a beat-up 1936 Brunswick record. Artifacts were minimal. However, I was slightly disappointed with the De-Noiser. It did a decent job but I felt like I didn't have as much control as I should. I would have liked a graph to help me adjust which frequencies I wished to attack more aggressively. It did remove surface noise but, due to limited control, fell apart if I pushed it harder.

In Sound Forge Pro 11, users will find a new Record Options window to make life just a wee bit easier. Simple and sweet would define the layout.

NEW FEATURES

If users wish to start the recording manually, they can go right ahead. The program defaults to the manual mode. If users wish for the program to automatically start recording when it hears audio, simply set the audio threshold. Perhaps a daily satellite feed needs recording. Sound Forge Pro can handle that, too. It's extremely easy to set what time for the program to start and stop recording and it will handle multiple entries. It can even be set it to record daily or weekly at the same time. This took about two seconds to figure out and it worked like a champ.

Another feature that I liked was the DC offset button. At times, a sound card will add DC current to a recording and you may notice a line on your waveform. Sound Forge Pro 11 can automatically correct this problem. This will save time and much energy trying to fix the problem in post.

Loudness meters are an interesting addition to Sound Forge Pro 11. There are a total of six meters to view: Momentary Loudness, Short Term Loudness, Integrated Loudness, Loudness Range and True Peaks for Left and Right Channels. There are also boxes that display the numeric value of each loudness meter.

While this is an interesting tool to study the audio with which you are working, I'm not sure how useful it is

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However, the De-Clipper was impressive. I intentionally over-modulated my voice when recording into the program, and we all know how bad digital distortion can sound. I applied the De-Clipper and I was blown away. Immediately my voice was clear and crisp. No distortion or artifacts to be found. Well done, Sound Forge!

If you're a production guy or gal, you know how important voice processing is. I found all the tools I need to make a voice sound big and beautiful. I recorded three voices (an older male, a younger male and a female) and applied various compressors, limiters, vocal enhancements, to each track. Since each person's voice is unique, often a setting that can sound great for one voice will sound dire when applied to another set of vocal chords. Sound Forge Pro 11 offers a multitude of processors and an infinite number of choices to achieve the sound that you are looking for. Thanks to the plug-in chain, I was able to make each voice full, crisp and clear.

The wealth of plug-ins and the audio restoration suite make it a useful tool for audio forensics.

Have you ever encountered an error that the soundcard can't support a particular sample rate? This is frustrating to say the least. But alas, there may be a solution — Sound Forge Pro 11 will automatically adjust the sample rate for playback to one that your soundcard can support when you are using an ASIO device. The Sample Rate box in the program will display that it has changed the sampling rate to accommodate the device you are using.

My one big gripe with the Sound Forge family, including this latest release, is that I would like to see multitrack capabilities. I am not a fan of having to take my audio files out of Sound Forge and use Sony's Vegas or another program just to create a mix.

The overall experience with Sound Forge Pro 11 was positive. The creators clearly are listening to consumer feedback and have made some necessary improvements to the program. The wealth of plug-ins and the audio restoration suite make it a useful tool for audio forensics. While the ergonomics of the program still aren't completely to my liking, being able to navigate away from the floating plug-in chain definitely helps the workflow. I would recommend this program to anyone entering the audio restoration or voice-over field. What exciting goodies will we encounter in the next edition of Sound Forge?

Dave Plotkin is the director of production and creative services for a large metropolitan radio station.

SHORT TAKE

StarTech.com Laptop Docking Station Is a Multi-Position Player

It is not very often that you come across a "gadget" that does more than a one thing well. When you find one that enhances a number of things you do routinely, you protect it as though you've struck oil. The StarTech.com Laptop Docking Station I tried recently is exactly one of those items.

Docking stations for laptops have been around since the early days of mobile computing. The idea of being able to take your mobile computer and replicate its ports so that you can use a full-size keyboard, a mouse, a monitor, a printer and network connections gave notebooks even more added value than just their mobility alone. Fast-forward to today, the USB 3.0 bus standard allows 5 Gbps data transfer rates. The StarTech.com Docking station I took through its paces takes complete advantage of USB 3.0.

In the box, you get the docking station, a USB A to USB B cable, a power supply, a driver disk and a brief setup pamphlet. Setup could not be simpler and within a short time your operating system will have found and installed all of the drivers and you'll be able to use the docking station to its full capacity. For the one USB 3.0 connection you make to your laptop, you're afforded three USB 3.0 ports, microphone and headphone jacks, a gigabit LAN connection, and three video ports (VGA, HDMI and DVI).

The real standout feature on the StarTech.com is the docking station's ability to output two HD video signals to external monitors. Effectively, including the laptop screen, anyone could be working on three full HD screens within minutes of plugging the docking station to their USB 3.0 port on their computer. The included software allows for complete control of each additional screen on the fly as



well. Adding the three USB 3.0 ports and the gigabit LAN connection just increases the device's versatility.

As always, the "Gee, those are great features" necessitates the "but how would we use it?" conversation. The first thing I considered was having one of these in a production room. In the BYOD (Bring Your Own Device) world, you have radio hosts, creative writers, sales and producers all needing a way to hook up their devices to your equipment to import and export audio into your automation systems. With one USB connection, the process is made simple and complete. Now the setup is only done one time.

What about the conference room? You've got the impressive multimedia there, but it gets much less so when you have to spend 20 minutes each time you use it to find the right cables and to hook everything up. If you have guests coming in and presenting to your staff often, set-up could be easier for them (and you). What about the remote broadcast where you have an opportunity to project your image to listeners and non-listeners alike? You could easily put together a top-notch booth with a laptop and a couple of HD flat-screen displays. The only people who wouldn't appreciate how professional your remote looks would be your competition.

A really useful gadget is one that saves you not only time (read: money), but also performs its duties in the most practical, easy way. If it can be used in more than one environment in your facility, it moves out of the realm of gadgetry and into the realm of necessary equipment. The StarTech.com laptop docking station will make you wonder what you ever did before you had one.

Info: www.startech.com. Price: \$171.99

— Todd Dixon

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FREE SOFTWARE**Sleepy-Time Doesn't Sleep on the Job**

Sleepy-Time DSP, a labor of love founded by Duluth, Minn.'s own Dustin Ralston, began in 2006 as Sleepy-Time Records.

"It was a way for local musicians to have their songs recorded, mixed and released when they couldn't afford the high cost of the bigger studios. I chose the name 'Sleepy-Time' because of the fact that everything was, and still is, run from a small bedroom studio," he said.

"I started getting into software programming, and with home recording really on the rise, I thought it was the perfect opportunity to give home recording artists access to high-quality effects when they couldn't afford the big name brands."

The Sleepy-Time Records Legacy Bundle includes six VST plug-ins: Crosstalk, Dual Panner, Polarity, Mono Channel, Stereo Channel and Transient.

These aren't effects that will make your guitar sound like flying saucers or your voiceover sound like Barry White, but they are handy for quickly and effectively doctoring problem tracks and maybe doing some fun experimentation along the way. All have a clean, easy-to-navigate interface.

Crosstalk is designed to be inserted across the stereo output of your DAW. It creates a variable degree of signal bleed between the left and right channels, simulating the crosstalk of traditional analog circuits. The effect is subtle when used judiciously.

Dual Panner comes in handy when trying to independently adjust the position of each channel of a stereo track. It can be used anywhere in the signal chain, so you're not limited to where the panning takes place in your DAW. It features an adjustable "pan law" setting. (Some DAWs automatically attenuate a stereo signal by 3 dB when that channel is panned to the center.)

Polarity is the simplest plug-in in the bunch. Just four buttons: Off, left only, right only, and left + right. Pressing a button flips the polarity of the corresponding signal of a stereo track. It's great for surgical correction of phase issues, especially when working with stereo files.

Mono Channel and Stereo Channel are essentially VU meters, but each has its



own twists. In addition to a smooth simulation of an analog VU meter, the Mono Channel provides a basic three-band tone control for minor corrections and a high-pass filter. The Stereo Channel provides a pair of meters, combined with an M/S balance adjustment, stereo and M/S muting, center crossover control and a phase correlation meter.

Finally, Transient, as the name implies, handle transient signals, i.e. drums and percussion. But it's not simply a compressor or expander. The attack and sustain controls allow independent, variable adjustment of the volume of both the initial attack of the sound and the amount of decay that follows. Either stereo or mono sources can be processed. There are also detection filters to zero in on specific frequency bands. In addition to that, either the left or right channel, and even the attack or sustain portion of the signal can be soloed for more precise adjustments.

These plugins come in 32- and 64-bit versions, and are all contained in a single small zip folder, found at www.sleepytimedsp.com/software/1str-bundle.

— Curt Yengst

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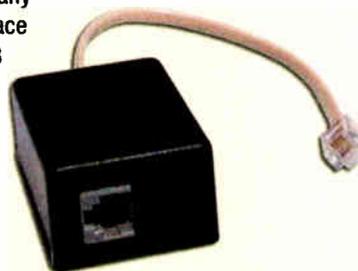
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Radio World Talkback

Comments shown were posted by readers to stories that appear at radioworld.com.

AM

"Regulatory bodies need to fully understand implications of actions to existing entities, be it radio service or any other functions or businesses for that matter, long before enacting new rules. In any case, grandfathering will have to be an option as some folks will not upgrade legacy equipment, hence there will be multiple modes co-existing in the same band plan that must not interfere."

"Mr. Thurst speaks from experienced knowledge of the medium-wave medium and his comments are reasonable and correct. That the FCC has expressed concern about the future of the AM band is laudable, but the suggestions put forward are not solutions to the main question of building audience: programming."

"Great post, Paul. Thank you for doing that. I have also written to a number of people saying the same thing. Thanks again."

— on "Commentary: AM Efforts Should Include Tech Solutions," radioworld.com. keyword Thurst

"Please don't use the inappropriate term 'hearing impaired.' If I tell people that I am hearing impaired, they think something is wrong with me. However, if I tell people I am deaf, they say nothing is wrong with me except that I can't hear! Those two terms aren't interchangeable. Many deaf people who consider themselves to be just communicating through a different language, ASL (American Sign Language) will feel insulted!"

— on "Consumer Electronics Association Honors NPR Labs," radioworld.com, keywords NPR Labs

"For countries like Chile, where we cannot use a lot of spectrum that involves international laws, this [workshop] is big news. Thanks."

— on "FCC Reschedules Unlicensed Spectrum User Workshop," radioworld.com, keyword spectrum



In 1906 the first radio transmission of speech was performed using a sound-modulated arc transmitter. Photo from the Deutsches Museum.

"Museums are interesting. When I worked at WJW(TV) in the late '60s/early '70s they had a massive Ampex 1000 in the VTR room, and the 'new' field cameras for Indians baseball were Norelco PC-70s. On a visit to the Deutsches Museum in 2001, there was a similar Ampex 1000 and Norelco PC-60 on display."

— on "Deutsches Museum Shows Radio's Beginning," radioworld.com, keyword Deutsches

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READER'S FORUM

WHEN NO OTHER MEANS EXIST

"Three Takes on the Radio Business" (Radio World, Sept. 11) featuring the comments of Dennis Weidler, general manager of KICY(AM/FM) in Nome, Alaska, prompted a recollection of one time on the air at KFAR in Fairbanks 40 years ago, in 1973.

A Saturday evening show called "Tundra Topics" indirectly announced messages to outdoorsmen in the bush, who otherwise had no conventional means of communication. (It was long before the days of cellphones.) Because of FCC rules, each message had to be prefaced, "If John Jones is listening, then he would be interested to know the following..." They were usually telephoned to the station and of routine substance.

One night, just prior to the show's airing, a caller reported that the brother of a man beyond contact had drowned that day in the Fairbanks River. "We have no way to reach him except via 'Tundra Topics,'" the caller said.

These were the most challenging and emotional words I have spoken into a microphone. I shall always remember it.

Dale R. Leslie
Retired Broadcaster
Ann Arbor, Mich.

dedication are priceless.

Third, I was especially interested in the follow-up article on the new, lower iBiquity license fees. As a recent winner of a new frequency in the FCC FM Auction 94, the incorporation of HD Radio into the build-out and operation of my new station is critically important to me.

There are no HD Radio-operating stations in the small Texas market I will be serving, but I would like to change that. As a younger, "next generation" broadcaster-to-be, I recognize the necessity of using the different digital technologies and platforms if radio is to survive in the years ahead. Digital devices and content delivery are what the young people of today demand. If we don't meet these digital expectations across all audio-delivery platforms

(automobile, portable, handheld and more), we can kiss our livelihoods and passion for radio goodbye. I can't even imagine that prospect.

The somewhat related article on the "digital directors" at Entercom, Emmis and Radio Disney just underscores the requirement for innovation and delivery in the digital realm. As Tim Murphy of Entercom said in the piece, both audience members and advertisers benefit from the programming, promotions and brand awareness that are the new digital platforms.

Finally, the feature on Bruce Vaughan and his autobiography moved me. His book talks about his decades of involvement, both as a businessman and radio and TV broadcasting technological devotee. His story is our story, even if it comes from a different aspect of the industry.

Vaughan caught the radio "bug" at a very young age. So did I. In my case, in the 1970s, in mid-Michigan, I was one of the kids who would sneak a small AM transistor radio into bed at night — with an earphone, of course, so as not to get caught — to be mesmerized by the clear-channel "blowtorches" like CKLW, WLS, WGN, WLW, WABC, KMOX and so many, many more AMs across the entire North American continent, not to mention South America, Cuba and beyond.

I'm sure there was many a morning when Mom wondered why I was so bleary-eyed, but with a satisfied smile on my face from the overnight, skywave radio adventure that we now call DXing. I look forward to reading the Vaughan memoir.

So, thank you, Radio World, for such a great read. This issue especially reminded me of why I'm in the radio business that I love, and why I always look forward to each and every new publication of Radio World to arrive in the mailbox.

Robert E. Lee
Owner
Lee MediaWorks LLC
Abilene, Texas



ALL-AROUND KUDOS

Wow, that was an action-packed issue! Radio World is always interesting and informative to me, but the collection of articles in the Nov. 6 edition really kept me reading every page, cover to cover.

First, it was informative to see how Brazil, as with our neighbors in Canada and Mexico, is handling the "degraded AM band challenge" by planning to migrate many of the senior-band stations to FM.

Personally, in our country, my considered preference would be to move all AM stations, over an FCC-mandated period of time, to the TV Channels 5 and 6 bandwidth. The FCC set a deadline for the TV conversion to digital, and I believe it should do the same for AM radio.

Not establishing a firm mandate for an AM conversion, I think, would be a repeat of the AM stereo debacle. Let's not do something like that again. Time is a-wasting on the needed resolution of AM's challenges. We would do well to follow Brazil's initiative.

Next, I so much respected the focus in the article on the critical role that engineers and technical staff play in keeping stations (and the digital platforms and infrastructure) on the air, and not just during emergencies. Major kudos to Beasley/Augusta, Ga.-based engineer Charlie McCoy and the others on his team for getting the (twice!) lightning-damaged station group back in business. Such experience, professionalism and



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