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EDITORIAL STAFF

EDITOR IN CHIEF, U.S. Paul J. McLane
GEAR & TECHNOLOGY EDITOR Brett Moss
TECHNICAL ADVISER Thomas R. McGinley
TECHNICAL EDITOR, RWEE Rich Rarey
PRODUCTION EDITOR, RWEE Karen Lee
CONTRIBUTING EDITOR Emily Reigart
CONTRIBUTING EDITOR John Bisset
ASSISTANT WEB EDITOR Michael Balderston
INTERNATIONAL EDITOR IN CHIEF Marguerite Clark
LATIN AMERICA EDITOR IN CHIEF Rogelio Ocampo

EDITORIAL CONTRIBUTORS

W.C. Alexander, Susan Ashworth, James Careless, Harry Cole, Ken Deutsch, Mark Durenberger, Charles Fitch, Christopher Friesen, Harold Hallikainen, Craig Johnston, Alan Jurison, Paul Kaminski, John Kean, Peter King, Mark Lapidus, Daniel Mansergh, John Merli, Laura Mir, Jim Peck, Mark Persons, Stephen M. Poole, Carl Lindemann, James O'Neal, Tom Osenkowsky, Rich Rarey, John Schneider, Randy Stine, Richard Strickland, James G. Withers, Tom Vernon

ADMINISTRATION & PRODUCTION

PUBLISHER John Casey
EDITORIAL DIRECTOR Paul J. McLane
PRODUCTION MANAGER Karen Lee
ADVERTISING COORDINATOR Caroline Freeland

CIRCULATION

GROUP DIRECTOR, AUDIENCE DEVELOPMENT Meg Estevez
CIRCULATION MANAGER Kwentin Keenan
ASSOCIATE CIRCULATION MANAGER Michele Fonville

SUBSCRIPTIONS

Radio World, P.O. Box 282, Lowell, MA 01853
TELEPHONE: 888-266-5828 (USA only 8:30 a.m.-5 p.m. EST)
978-667-0352 (Outside the US) FAX: 978-671-0460
WEBSITE: www.myRWNews.com
EMAIL: newbay@computerfulfillment.com

CORPORATE

NewBay Media LLC
PRESIDENT AND CEO Steve Palm
CHIEF FINANCIAL OFFICER Paul Mastrorandi
CONTROLLER Rick Ng
VICE PRESIDENT OF AUDIENCE DEVELOPMENT Denise Robbins
VICE PRESIDENT OF DIGITAL MEDIA Robert Ames

VIDEO/BROADCAST GROUP

EXECUTIVE VICE PRESIDENT Carmel King
VICE PRESIDENT / SALES DIRECTOR Eric Trabb

ADVERTISING SALES REPRESENTATIVES

US REGIONAL & CANADA: John Casey, jcasey@nbmedia.com
T: 212-378-0400, ext. 512 | F: 330-247-1288
US REGIONAL: Michele Inderrieden, minderrieden@nbmedia.com
T: 212-378-0400, ext. 523 | F: 301-234-6303
EUROPE, AFRICA & MIDDLE EAST:
Raffaella Calabrese, rcalabrese@nbmedia.com
T: +39-320-891-1938 | F: +39-02-700-436-999
LATIN AMERICA: Susana Saibene, susana.saibene@gmail.com
T: +34-607-31-40-71
JAPAN: Eiji Yoshikawa, calls@world.odn.ne.jp
T: +81-3-3327-5759 | F: +81-3-3322-7933
ASIA-PACIFIC: Wengong Wang, wwg@imaschina.com
T: +86-755-83862930/40/50 | F: +86-755-83862920
CLASSIFIEDS: Michele Inderrieden, minderrieden@nbmedia.com
T: 212-378-0400, ext. 523 | F: 301-234-6303
LIST RENTAL: 914-925-2449, danny.grubert@lakegroupmedia.com

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INDIA FM

(continued from page 1)

12 cities. The second phase was introduced in 2005, after which India had 243 FM channels in 86 cities.

Very large numbers of listeners are involved. The country has 1.2 billion people. Private enterprises believe FM radio in India currently reaches 40 million listeners in four metro cities and 350 million in 91 smaller cities and towns.

"Now, with Phase III, it will touch 90 percent of the population, making it truly a common man's medium," Reliance Broadcast Network CEO Tarun Katial told *afags.com*. Reliance Broadcast Network is an influential media conglomerate, part of one of India's largest industrial empires.

Auction details from the Indian ministry of information and broadcasting showed that FM frequencies in cities like Mumbai, Bangalore, Pune and Ahmedabad have gone for high amounts — \$26 million in Delhi — but stations in 20 somewhat smaller cities and towns like Mysore, Mangalore, Pondicherry, Trichy and Vijayawada took more time or didn't attract takers at all.

These frequencies are mostly "left over" from Phase II. This is the first batch of Phase III licenses to be auctioned; 135 frequencies in 69 cities were released. Some 680 frequencies are yet to go under Phase III; they will be auctioned in batches over the next two or three years.

Phase III licenses will be operative for 15 years. Foreign direct or institutional investment of up to 26 percent is being allowed in these stations; in the second phase, only 20 percent was allowed.

Of the unsold licenses, one industry watcher told Radio World, "Most of those — perhaps 500 or so — are in Group D [smaller] towns, and the chances of many of them being sold are remote, especially since the industry sees FM as a nearly obsolete technology, soon to be replaced by digital radio." The government of India has promised to invest significantly in digitizing some of its state-run broadcast transmitters using Digital Radio Mondiale.

Critics of the FM expansion process say that to date, the government's approach seems to be to seek revenue from cities that already have a glut of FM stations while ignoring the social and cultural benefits of encouraging growth of FM in small towns and rural India that lack local radio entirely.

India has also made promises of setting up some 4,000 community stations, but critics say the government has barely managed to issue licenses to 226 of them, of which only 184 are operational, and quite a few of those are campus radio stations.

Prime Minister Narendra Modi, in

an Independence Day speech, expressed satisfaction that his government was able to auction 135-odd commercial FM frequencies for the equivalent of \$152 million; he also said there was pressure on him not to auction the frequencies. Modi said in Hindi: "I was asked why we are auctioning FM radio, a medium which is of use to the common man and doesn't entail much earnings ..."

Others said objections to auctioning frequencies were not without basis: \$152 million is about a third of what the state spends on the officially-supported Prasar Bharati broadcaster each year. Sajan Venniyoor, a keen supporter of community radio, called this amount "peanuts, compared to the extraordinary social and economic benefits that could accrue if FM frequencies were deployed in media-dark towns, rural and border areas first, where there is no local radio at present. That's two-thirds of the country."

FM radio in India — mostly AIR FM stations — covers about 30 percent of the land area and about 45 percent of the population of India. AIR FM is a network of FM channels across this huge country, run by the government-funded, autonomous All India Radio.

Some commentators feel that expanding FM coverage in deprived areas should be a priority, instead of continuing to sell frequencies in cities where FM is well established.

So cities like Delhi, which already has eight private FM channels and three AIR FM channels (FM Rainbow, FM Gold and Vividh Bharati) all playing more or less the same kind of music, will now get one more FM channel.

By selling to the highest bidder, by disallowing independent news on radio and by not insisting on diversity of language and programming, the govern-

ment policy has been criticized for having reduced FM radio to cookie-cutter stations, all playing top 20 film songs.

Under the Phase III rules, private FM stations will not be allowed to broadcast their own news but can relay bulletins of state-run All India Radio. Broadcasts pertaining to sporting events, traffic and weather, coverage of cultural events, festivals, exams, admissions, public announcements, natural calamities, health alerts will be allowed.

Private operators have been allowed to own more than one channel, but not over 40 percent of the total channels in a city, subject to a minimum of three different operators in the city.

Networking of channels will be permissible within a private FM broadcaster's own network across the country.

Nisha Narayanan, chief operating officer of private broadcaster Red FM, said, "The bids are not unrealistic but they [appear] to be pushing the bounds of realism ... Most of the players have bid very aggressively in ... key media consumption markets."

Narayanan told Radio World, "While we expected demand to go high in some major markets like Delhi, Bangalore, Chennai, Mumbai and the like, Bhubaneswar and Guwahati kind of emerged as surprise. Delhi, Mumbai, Bangalore Chennai have also gone beyond reasonable prices. Looking at it from demand-and-supply angle, it looks like in some markets the bids have over shot. On the other hand there are as many as 13 cities that have seen no bid and some of them are prominent cities. So yes there are some surprises in this auction."

The author is a journalist based in Goa, India. He is founder of the CR-India mailing list, which promotes community radio.

NEWSROUNDUP

PASSING: Neil M. Smith, founder of consulting firm Smith and Fisher, died at age 81. He began his career in broadcast as recording engineer at Edgewood Studios in Washington, founded by Charles Osgood, and worked briefly at NAB before becoming an engineer at consulting firm Kear and Kennedy; there he helped oversee installation of a master antenna on the Empire State Building and antenna work on the John Hancock Building in Chicago. With his wife Jeanne Fisher, he founded Smith and Powstenko; it would become Smith and Fisher when he partnered with stepson Kevin. Smith earned an Emmy for technical innovation for work with ABC TV and helped develop wireless microphones and antenna pattern measurement using helicopters.

PIRATES: The FCC announced a \$10,000 fine against a New Jersey man for alleged operation of an unlicensed station heard from two locations in northern New Jersey. The commission said the operator was Jose Luis Hernandez and that he referred to himself as "El Emperador."

FCC: The commission asked for feedback on its updated website, which came on the heels of a big IT upgrade. It launched a new beta version of its site, according to Chief Information Officer David Bray, that is designed to be more useful and accessible to FCC users.

We've Amped Up Our Online Content

RW is increasing the strength of commentary and analysis you'll find at *radioworld.com*

We've made a commitment to increasing the strength of expert commentary and analysis to be found on the Radio World website. While some online stories and articles also appear in our print issues, others do not. Here's a sampling of recent items at *radioworld.com* that I don't want you to miss (especially if you're not getting the free Radio World NewsBytes emailed newsletter):

FCC Rules on Non-Directional Antennas

Veteran engineer Cris Alexander explains why he is troubled by an FCC action this summer that has import for all FM broadcasters using non-directional antennas. "While I do not condone what the station did and have strong feelings about the can of worms it opened up, I do support any efforts to clean up this mess." Visit radioworld.com/nda.

Rackley: AM May Never Have an Opportunity Like This Again

Ron Rackley told Radio World readers, "We now have the most compre-



iStockphoto/PJRego

hensive look at the FCC rules as they impact AM radio in the last quarter century underway. We may never have an opportunity for 'AM improvement' like this again. The viability of AM radio as a broadcasting service can be significantly improved in the process. The industry should be interested in all the technical rule proposals and not just how FM translators will be regulated." Read it at radioworld.com/rackley.

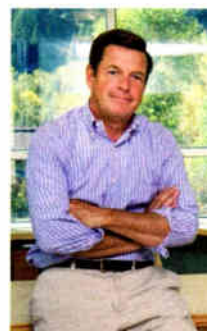
Sawyer: AMs Prepping Already for Translator Opportunity

We've been running a series of interviews with AM experts about their views

on the FCC AM order. Timothy Z. Sawyer is principal in T.Z. Sawyer Technical Consultants LLC and senior consultant at Mullaney Engineering Inc. He talks about his AM clients who "just want to do good for their communities, pay their bills and make a little money if at all possible." Meantime, his FM clients are worried about what they see as an FM translator invasion. See radioworld.com/sawyer.

Marketron Launches Working Programmatic Marketplace

The broadcast advertising software provider launched Mediascape Marketplace to 2,900 stations. It will offer the ability to purchase inventory, schedule it and deliver creative in real time, Marketron says. Radio World reached



out to CEO Jeff Haley to learn more. "There are a lot of announcements out there about exchanges being built in the future, but ours is here and ready today," he said. See radioworld.com/mediascape.

FROM THE EDITOR

Paul McLane



WSM 650 AM Celebrates 90 Years

Great photos from the station's October bash accompany this Q&A. "WSM is an iconic brand and remains relevant as a player in country music," management told us. "As FM stations continue to narrow playlists and shorten artist interviews, we play new music and welcome up-and-coming acts. We work hand in hand with the Grand Ole Opry to support new artists." Go to radioworld.com/wsm.



The WSM images here are from the station's Facebook page, www.facebook.com/wsmradio/, where you can find an album of pix from their party at the tower site.

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Photo by John Schneider

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CUMULUS

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venues were down about 10 percent from the same period in 2014.

The Cumulus portfolio includes 460 AM and FM radio stations in some 90 markets. The company, founded in 1997 by Lew Dickey, acquired Citadel Broadcasting in 2011 for \$2.5 billion in stock and cash, according to business reports at the time. Cumulus also owns syndication service Westwood One and has an ownership stake in Rdio, an online music streaming service.

Bankruptcy rumors had swirled around Cumulus in recent months, according to various business reports. In September, Moody's cut the company's rating to nearly junk status because of its debt load, according to StreetInsider.com.

Cumulus had \$1.26 billion in revenue in 2014, but the broadcaster had only \$11.8 million in net income, down from \$176 million the previous year, according to its financial reports. The company has been in cost-cutting mode for some time, according to a variety of news stories, which also cite a 48 percent turnover rate for Cumulus' approximately 5,000 employees in the past 18 months.

A NEW ERA

The broadcaster appointed Mary Berner as CEO in September, replacing Dickey. Lew Dickey remains on the Cumulus Media board as vice chairman. His brother John, the company's executive vice president of content and programming, left the company in September.

Radio World requested interviews for

NEWS

Mary Berner



this story with Cumulus officials, including Berner and Dickey; those requests were declined.

Various media reports indicate the company shakeup likely was initiated by Chairman Jeffrey Marcus, who is also a partner in Crestview Partners and owns a 27 percent stake in Cumulus.

Berner had been appointed to the Cumulus board earlier this year. She signed a three-year CEO deal with Cumulus that pays a \$1 million signing bonus and annual salary of \$1.45 million, according to regulatory filings.

In a webcast address to Cumulus employees immediately after starting work, Berner denied that a Chapter 11 bankruptcy filing was imminent and assured employees that a turnaround is coming. Berner also expressed support for the Nash country brand, in which Cumulus has invested a great deal of money and time. Her tone largely was upbeat.

"Yet the company overall is not performing. ... Given our many assets, we should not as a company be underperforming our competitors. Yet we are," Berner said.

"Make no mistake," she said later, "this is a turnaround."

Berner, 56, has extensive experience in the magazine business. She served in senior management positions with several Condé Nast publications and headed MPA — the Association of Magazine Media.

INDUSTRY EVOLUTION

As some see it, Cumulus and the rest of the terrestrial radio industry are going through an evolutionary period as the Internet and smartphones increasingly play a role in how radio content is delivered.

"The amount of competition for radio broadcasters is unprecedented considering satellite radio and music services like Pandora, Spotify and Apple Music," as one online observer wrote in September.

As the number two U.S. radio company by station count — only iHeartMedia is bigger with 850 stations — Cumulus accomplished its goal of becoming a radio behemoth but failed at its execution, according to Gordon Borrell, CEO of Borrell Associates, a research and consulting firm that tracks local advertising spending.

"All of those acquisitions brought operational issues that weren't addressed soon enough. When a CEO spends the majority of his time on operational issues, as Lew Dickey did in his final 12 months, it's a pretty clear signal the body is rejecting the transplants," Borrell said.

Dickey hired 40 new executives in 2015 to help transform the company. "So I think he was on the path to turn things around. Unfortunately, Wall Street didn't see things that way."

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AM Order Produces Mixed Reactions

Both praise and frustration are evident over effort to help AM licensees

REGULATION

BY SUSAN ASHWORTH

The scope of the Federal Communication Commission's AM radio revitalization order is expansive. Industry observers have begun to decipher the FCC's language to get a handle on how the order will affect the U.S. broadcast industry.

Many deem FCC the effort a viable one.

"As far as the items in the report and order, I believe all are appropriate and will offer some relief to AM broadcasters," said Milford Smith, vice president of radio engineering at Greater Media, noting for instance the elimination of the ratchet rule.

The industry's dominant trade association agrees. "We think this was a good outcome, and we will continue to work with the FCC to develop creative ideas that will help revitalize AM radio," said National Association of Broadcasters spokesman Dennis Wharton. He did not elaborate on further solutions the NAB plans to pursue.



CUMULUS

(continued from page 5)

Borrell said terrestrial radio is engaged in a balancing act leading to greater diversification in its media portfolios.

"For example, Townsquare now gets nearly one-fourth of its revenue from sources other than radio advertising; about 16 percent from ticket sales and 7 percent from digital marketing. As a result, its stock price is trending better than the rest of the radio industry," Borrell said.

In her webcast, Berner mentioned a need to focus on programming and further diversify in the digital space.

"Winners create and deliver content the people want ... across all platforms. I'm here because I believe Cumulus has what it takes to be a winner in media. Period," Berner said.

Todd Antonelli, managing director at Berkeley Research Group in Chicago, said Cumulus isn't the only broadcaster heavy with debt. He points to iHeart-Media as being in the same predicament.

"The problems for the U.S. broadcast radio industry are numerous. They are partly due to the heavy debt loads and myopic focus on operational improvement areas like cutting costs, slashing labor and nationalizing programming," Antonelli said. "This tactic is creating a disconnect with American listeners as streaming options become more prevalent."

Antonelli, who follows media stocks for his group, said he agrees with Berner's call to go "all in" on as many digital platforms as possible. Cumulus, which purchased its stake in Radio not long ago, plans to more

tightly integrate its on-air programming with the music streaming service, according to the broadcaster.

Antonelli also said an immediate concern to Cumulus should be that debt staring it in the face.

"A key index to use is the long-term debt-to-equity ratio. As of June 2015, Cumulus had a long-term debt-to-equity ratio of 4.526," according to Antonelli. "That's a very high number."

According to the website CSIMarket.com, companies in the broadcasting media and cable TV industry averaged a total debt-to-equity ratio of 1.07 in the second quarter of 2015.

"The lower the number, the lower the risk. This weakness affects [Cumulus'] ability to borrow capital, which could be a factor if economic conditions change," Antonelli said.

There had been enough talk earlier about a bankruptcy filing that Berner saw the need to mention and dismiss that idea in her webinar. Several financial analysts contacted by Radio World for this story also downplayed the idea of a bankruptcy filing, calling it "unlikely" and "premature speculation" at this juncture.

"It's absurd to talk about bankruptcy with this company this year or in 2016," said Andrew Gadlin, an analyst with Odeon Capital Group. "Cumulus has enough free cash flow going for it to survive. Their revenue will be about \$1.2 billion in 2015. Berner just has to get the operations side fixed. And they'll figure out the long-term debt."

Since there is "no trigger" to put Cumulus into bankruptcy in 2016 or 2017, Gadlin said, expect Cumulus to be stable for at least several more years.

"Most of the Cumulus debt comes due in '19 and

Others praised the FCC for recognizing the vital role that AM radio plays in emergency situations.

The commission appears to be trying "to make life easier for AM operators who are committed to maintaining this valuable national emergency communications resource," said Richard Rudman, a member of the Broadcast Warning Working Group. He pointed to the efforts of Commissioner Ajit Pai who, according to Rudman, "got the word out that FM may help save the AM band."

The actions are a step toward an eventual long-term overhaul of the AM broadcast band "that will take into consideration the most fundamental reasons why listeners turn from AM radio to other media sources," said Tom King, president of Kintronic Labs, an AM systems manufacturer.

King said the FM translator modification window and translator application auctions for Class C and D stations in particular will serve to provide an "economic stimulus to these lower-income stations where it is needed the most," he said. "This is a long-awaited rule change that has to be welcome news for the AM broadcasters in small- to medium-sized markets."

King praised the commission's adoption of MDCL control technologies, which he said will help stations reduce

(continued on page 8)

'20, but it's low-cost debt with low interest rates, and there are covenants to enable them to buy a few more years to stretch out the debt payments."

Gadlin, who monitors Cumulus' quarterly conference calls, said the company has struggled to generate more revenue in major markets like New York, Los Angeles and San Francisco since acquiring stations in those cities from Citadel.

For example, according to BIA Kelsey estimates, annual revenue at WPLJ(FM) in New York went from \$19.1 million in 2011 to \$12.9 million three years later. At KLOS(FM) in Los Angeles, revenue slipped from \$22.9 million in 2011 to \$15.8 million in that time. BIA Kelsey said overall revenue numbers in those markets for radio have been down in those years.

Cumulus also "messed up" the Westwood One network business, Gadlin said, but things are looking better for the broadcaster moving forward. "They have better people in place on the network side. It's a political year in 2016, so that is a \$25 million bump. And then Cumulus also has cash coming from the sale of two tower properties."

According to the company's Q2 report, it will close on the sale of the former KABC(AM) tower site in Los Angeles during the first quarter of 2016. The 10-acre site will fetch approximately \$125 million for the broadcaster.

It is also selling a 75-acre tract of land near Bethesda, Md., for as much as \$95 million, which is expected to close in the second half of 2016. It's the former WMAL(AM) tower site. Cumulus is expected to pay down some of its debt with cash from these transactions.

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AM ORDER

(continued from page 6)

transmitter operating costs. "It is a rule that is long overdue and should be welcomed by AM broadcasters that have transmitters with this option."

The Multicultural Media, Telecom and Internet Council called the order a "tremendous step forward in promoting diverse broadcast ownership," pointing to the relaxation of restrictions on transmitter locations for day and nighttime service.

"This is welcome news for diverse radio owners across the nation who are struggling to survive in a world where consumers are turning more to the Internet to get their entertainment, news and information," said Kim Keenan, MMTC president and CEO.

The National Religious Broadcasters group also was pleased: "This order takes important steps to improve this long-relied-upon and relevant radio band serving local communities," said Dr. Jerry Johnson, president and CEO of the NRB.

LIMITED "SPLASH"

But reactions to specific aspects of the order varied.

"The segmentation of both the 250-mile move window and the subsequent new translator window in which Class C and D station get a first bite at the apple was not expected, at least by me," said Greater Media's Smith.

"There are plenty of stations in other classes, B particularly, which would certainly have benefited from that initial bite. Obviously those stations will ultimately get that opportunity — but with necessarily more limited choices in terms of both available translators and spectrum."

Said Kintronic's King: "I had honestly hoped that there would be a further reduction in the required minimum antenna efficiency below the 25 percent that is being proposed. I would hope that this could be lowered on a case-by-case basis where there are no interna-

tional considerations and where land is particularly scarce, such as in Hawaii."

He would like to see further changes: "Regarding the daytime and nighttime community coverage requirements, the AM station allocation rules need to be overhauled with regard to the high noise level that is present in the band," King said. He suggested that consideration be given to authorizing higher transmitter powers to overcome the noise environment if the FCC is not willing to get behind a concerted effort to quantify major noise sources in the AM band and in the 0.5 MHz to 2 GHz band.

Others say more needs to be done.

"The commission has once again missed a chance to make a much bigger splash," wrote AM station owner Larry Langford in a commentary on the Radio World website: he pointed to a dearth of movement on receiver standards.

"We are being told it's revitalization, but the listeners would say it's the same old mud and noise," he wrote. "And unless we do a lot more to fix the end sound, listeners will be tuning for those new translators every time, while the AM service itself keeps withering away."

Smith of Greater Media said, "I think most AM broadcasters would have preferred an AM-only window for new translator applications initially; what is proposed seems to strike a balance between what was politically possible and the very real need of AM broadcasters for relief."

The FCC did not include a general FM translator window for AM stations in this order, a fact that "generated a lot of unhappiness," said Ben Dawson, managing partner and senior engineer of Hatfield & Dawson. "But I'm not sure it's entirely justified."

Some observers feel a general translator filing window would not be a great benefit to many stations because of congestion of the FM band, he said. "By adopting the two windows ... the commission may actually have taken an action with somewhat more benefit than a general window would have had."

The rules for location and coverage

AM TALKBACK

Here's a sampling of reactions from Radio World readers to the AM revitalization order, as posted at radioworld.com.



"Much better to clear the band of abused, misused and virtually abandoned stations so those who do know what they are doing can get about the business of doing it."



"This would have been great 10 years ago. I think time and money would have been better spent on how to let the AM service die a natural death and transition into an expanded FM band, made up of old TV Channels 5 and 6."



"Too little to late? Hardly. Not for me and my little station; it means I will survive and my hometown community gets covered."



"If the FCC were seriously concerned about the noise trashing of the esteemed AM band, they would immediately kill AM HD Radio."



"If we did not have an average of 40 stations on each channel, then the band would not suffer from a bad perception by the average person."



"While AM may be in need of help in its struggle to survive, AM stations should not be granted special preferential treatment."



"There are some folks who wouldn't be in this biz at all if there wasn't a multi-million dollar payday down the road someplace."



"Our strong AM daytimer needs 250 watts at night, and as such we implore the FCC to move ahead with a nighttime action plan."

of translators have been liberalized, however, and that is a benefit, Dawson said.

MORE TO COME

For some, the next concern is the further notice of proposed rulemaking that raises more changes, including one to alter protections for Class A stations.

"I am fearful the paring back on most protected contours to 2 mV/m is likely to negatively impact those stations that cannot make significant improvements to their own facilities, for whatever reason, be it technically, via regulation or financially," Greater Media's Smith said. "Indeed, such stations are likely to experience more interference as other stations make such improvements."

Smith opposes eliminating skywave service protection of Class A stations; he cited a recent iHeartMedia study that found hundreds of thousands of listeners nationwide relying on such service. "In large-scale emergency situations, such service can be critical," he said. "Class A stations, by and large, continue to offer high-quality local, news, weather, sports and talk programming and are primary attracters of listeners to the AM service. To downgrade such stations is not likely to have a positive effect on the remaining AM listenership," he said.

Others see the Further Notice as a chance to get it right.

"The commission issued a new further NPRM, which will consider a large

number of very significant changes in the allocation standards for the medium-wave band," Dawson said. Those changes, he said, "would allow AM stations much more flexibility to improve their signal strength performance, overcoming the increasing noise that is the most significant limit to AM station service in the increasingly urbanized United States."

Another interested observer is Ben Downs, vice president and general manager of Bryan Broadcasting in Texas.

"There are more solutions and options for AM broadcasters than I expected," he said. "The service that daytime-only broadcasters can provide has become far more relevant. And that goes beyond helping broadcasters; it helps the communities they serve."

"My hope is the future rulemaking will allow us to make our case for making this AM to FM migration permanent so that listeners can count on this service in the future," Downs continued. "Providing nighttime service to the 850+ Class D stations will completely change how some small communities use their local station."

Comment on this or any story. Email radioworld@nbmedia.com with Letter to the Editor in the subject field.

You can read the entire AM order at <http://tinyurl.com/rw-AM-order> and find information from the FCC about mechanics of the translator windows and other information at <http://tinyurl.com/rw-fcc-AM>.

NEWSROUNDUP

OLD CASE FILE: The Media Bureau dismissed a petition for reconsideration from the state of Oregon in its oldest pending noncommercial educational comparative case, one that dated to two mutually exclusive applications filed almost 30 years ago. At issue was an FM slot near the California/Oregon border that eventually became KFPR(FM) in Redding, Calif., licensed to the University Foundation at California State University Chico. On the losing end of the legal battle is Southern Oregon University and its state government.

MUSICAL HARMONY: Pandora signed a licensing agreement with Sony/ATV Music Publishing. Terms were not publicized. "We believe that this agreement with Pandora is a major step in the right direction to ensure that our songwriters are fairly compensated for the use of their music on streaming services," said Sony/ATV Chairman/CEO Martin Bandier. He called Pandora "one of the most important platforms for music consumption and discovery."

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Try This to Adapt to the iPhone 5

Also, do you know what to do with old mercury vapor tubes?

WORKBENCH

by John Bisset

Read more Workbench articles online at radioworld.com

Mark Voris, director of engineering for KVSS(FM) and Spirit Catholic Radio in Omaha, Neb., was one of the first Tieline customers to purchase the company's iPhone Report-IT application and Mic Adapter, which holds the phone and adapts it to an XLR microphone input and headphone jacks.

When many of his staff began upgrading to the iPhone 5 and 6, Mark had a problem: The physical dimensions of the newer phones were different, and the phones wouldn't fit into the adapter cradle.

Mark set to work adapting his Mic Adapter. After careful measurement, he sawed through the heavy plastic cradle, drilling the two pieces to accept a new metal bracket that was screwed in place. Fig. 2 shows the top of the modified Mic Adapter and Fig. 3 shows under-

The physical dimensions of the newer phones were different and wouldn't fit into the adapter cradle.

neath, with the bolts and nuts securing the extension bracket. He then purchased a Lightning to 30-pin adapter, as seen in Fig. 4.

Fig. 5 shows the completed project, with the iPhone inserted.

Mark added a few other features; he uses headphone jacks with spring strain reliefs and has put a color-coded dot by the headphone jack, shown in Fig. 6. This way, staff members don't have to guess which plugs go where.

Since many Report-IT events involve multiple guests, Mark added a small Behringer headphone amplifier, so everyone can have his or her own headphone volume control, seen in Fig. 7.

(continued on page 14)



Fig. 1: Tieline's Mic Adapter for the iPhone 4. Notice that the larger phone won't fit.



Fig. 2: The Mic Adapter with its metal extension bracket is viewed from above.



Fig. 3: Here's the back view of the same modified cradle.



Fig. 4: A Lightning-to-30 pin adapter plug is also needed for the newer iPhones.



Fig. 5: The completed Mic Adapter has been modified for the larger iPhone.



Fig. 6: The headphone jack is marked with a colored dot, and a spring strain relief plug is used.

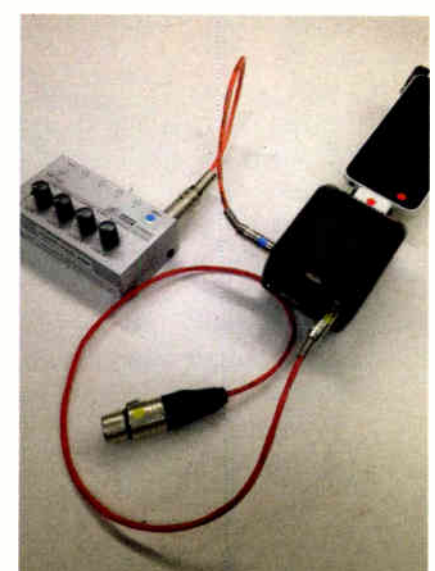


Fig. 7: The Behringer HA400 gives each guest position its own headphone adjustment.

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Social Media for Engineers: Tool or Toy?

Your online presence can improve your professional life if used properly

BY PAUL KAMINSKI

Use of social media in the broadcasting profession is not limited to programmers, promotions people and interns. Technical managers find that these 21st century tools can play an important role in their jobs and careers.

To perform their duties, engineers need information on operation, maintenance and, in some cases, circuit-level equipment repair. In other instances, they must replace equipment, often with limited fiscal resources. To do all of that efficiently, techies rely on a network of peers, as do those in talent and management. Add social media to the list of traditional networking methods — telephone and email, BBS, list server and even contact by amateur radio — that engineers use to stay in touch.

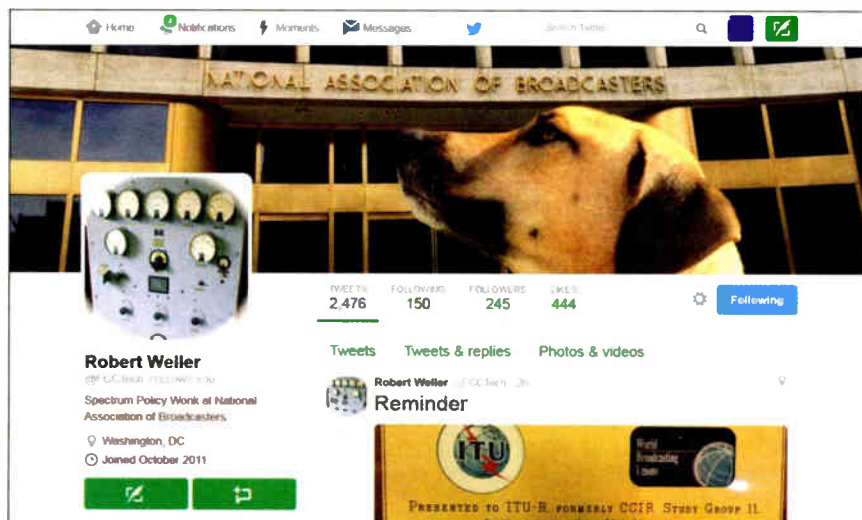
We put out a call for engineers to tell us how they professionally use social media.

YOU'RE ONLINE. NOW WHAT?

It's important to note that some broadcast organizations have rules on how employees use social media. One engineer — who asked that I keep his identity and affiliation confidential, and whom I'll call "RE" — said that's because stations want to maintain "consistency across multiple paths to the end user, [which] is vital to success for 'old media' outlets engaging all the new media." In such cases an engineer might choose to use an online alias or a partial name, depending on how strict the company's rules are. At minimum, if you plan to expand your use of social media, understand your employer's policies going in.

Once online, how and where can an engineer find help? One of the most obvious and useful ways that social media helps an engineer function more effectively is crowd-sourced troubleshooting.

A popular Facebook group is called "I Take Pictures of Transmitter Sites." Members will post pictures of equipment with issues, and others with experience or suggestions can weigh in with suggested solutions. That provides a great



Various platforms serve various needs. On Twitter, Robert Weller, self-described "spectrum policy wonk" at the National Association of Broadcasters, might tweet on any given day about radio regulations, classic movie shots or baseball.



LinkedIn is probably the best-known business-oriented social media site. Mike Hagans is president of Orbital Media Networks.

base of knowledge.

RE told me, "I think much of the advantage of using Facebook to share information comes from the informal, social nature of interaction, where everyone from the designers of high-power shortwave installations to part-time techs setting up LPFM stations meet as equals."

Need a piece of equipment or a part? Geary Morrill, CPBE CBNT, is technical manager for the Dignity group of stations in Saginaw, Mich., and uses both Facebook and LinkedIn. "I find both to be [an] invaluable source of information, networking and insights. There's even a used equipment for sale/seeking group on Facebook that I've used on a couple occasions successfully."

Rod Zeigler of the Nebraska Rural Radio Association has used social media connections to buy and sell equipment. "I have purchased a good used transmitter via social media and have also sold equipment for my employer that way," Zeigler says.

Need to stay up-to-date? Harrill Hamrick, an engineer with the Carolina Panthers Radio Network and the Performance Racing Network, uses Twitter as a

NETWORKING

How about networking with peers? Zeigler combines the old with the new.

"It allows me to network with other engineers, hash out the problems of the world, and give and take advice on various engineering issues that arise. I have also had QSL contacts via social media, which actually surprised me."

RE says it's not just 20- and 30-some-things using social media in radio engineering; the level of experience ranges from younger technicians to engineers at or near retirement.

"I had not expected to find men who'd been CEs of well-known 50 kW AMs, others who are directors of engineering at major stations in top-25 markets and well-respected consulting engineers; but there are more than a few examples of each.

"In hindsight, it makes sense: There are a lot of radio amateurs in broadcast engineering and a lot of computer hobbyists from way back in the days of dial-up BBSes and the early years of public Internet access. As a group, we're comfortable with technologically mediated socializing."

Social media is also just fun. Looking through some pages, pictures and tweets, I found posts ranging from a past SBE president bragging about a chili recipe, to cute cat photos and a look back to radio's past.

Zeigler shared some tips for those who use Facebook: "There are plenty of sites for political rants and other special interest themes. If you join any group, please keep to the theme of that group. Nothing will kill a good site quicker than veering off into areas not germane to the main theme of the group."

Visiting all of those platforms, pages and looking at those pictures can take up time; Zeigler says this can be problematic. "Social media can become a time waster, but with discipline, the advantages far outweigh the disadvantages. Probably the greatest advantage [in using social media] is making friendships in the engineering field that would have never happened otherwise."

Paul Kaminski, CBT, is a long time *Radio World* contributor and host of *msrpk.com's Radio-Road-Test program*.



Cris Onan saw this visual rumination and passed it along on Facebook. One friend commented, "OK now you're just breaking my heart."

newsfeed. "I follow news and sports sources for the most part [and] some fun things and folks I know, but mostly information things."

Hamrick also checks some groups on Facebook. "The SAS User Group is good. 'I Take Pictures of Transmitter Sites' and 'I Take Pictures of Radio Studios' are insightful too. There is a new Rivendell [Open Source Automation] User Group that just started up. I see other engineers using those groups."

HOW DO YOU DO SOCIAL?

How do you use social media? To solve problems at work, to learn something new, to connect with your colleagues? To post selfies from atop radio towers? Which platforms do you like? Or do you avoid social media entirely? Tell us why and how you use Facebook or Twitter, LinkedIn or Instagram, SlideShare or Ellos. Email radioworld@nbmedia.com to share your experiences.



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PLANNING

GOLDEN AGE RADIO CALENDAR AVAILABLE

It's that time of the year again — calendar time. One of radio's best calendars is created by Radio World contributor John Schneider. It's filled with 12 masterfully colorized color pictures of radio studios from the past and in action from years 1920–1959, including several from the 1920s.

You can pick up your copy of the 2016 Radio History Calendar at John's eBay emporium (<http://tinyurl.com/pwwdsj4>) for \$21.95 on eBay by searching "radio broadcasting history calendar," or email Schneider at jschneid93@gmail.com.



MARKETPLACE

Beefing Up the Link: Broadcast equipment manufacturer GatesAir has announced new features and improved specs for its Intraplex HD Link, a 950 MHz microwave STL link. The HD Link can transport AM/FM analog, HD Radio and IP data.

According to the announcement, upgrades to the architecture could lead to "as much as double IP data capacity to support higher channel counts and increase audio fidelity, while strengthened backup connectivity further enhances IP transport reliability."

Specifically it says, "[R]adio broadcasters can now deliver up to 13 stereo channels across a 3 Mbps STL link using 192 kbps AAC compression; and further escalate



audio channel carriage using advanced codecs like AAC-HE, AAC-HEv2 or Opus.

"The HD Link's initial IP data capacity can be expanded from the previous apex of 1536 kbps to 2400, 2800 or 3200 kbps depending on the broadcaster's channel count and audio fidelity needs ..."

New features include Intraplex SynchroCast simulcasting technology.

Info: www.gatesair.com

WORKBENCH

(continued from page 10)

Roberta X posted an online comment on the Sept. 23 edition of Workbench, with regard to Simpson 260s and Triplett 630 VOMs (Volt-Ohm meters).

These instruments are widely available on the used markets from sources such as eBay, hamfests and surplus outlets.

Roberta says they are worth their weight in gold when you need a dependable reading in adverse circumstances. Even smaller, cheaper oldies such as Triplett's 666R were popular with many field service groups.

When the engineering crew at Roberta's station wiped out its last 260 (remember, don't leave tools on top of stepladders!), \$30 at a hamfest got them a clean, recently calibrated analog VOM.

Projects and contract engineer Art Reis tells us that a client needed to dispose of some old mercury vapor tubes. Almost all town dumps or refuse depots hold scheduled hazardous waste days, when individuals can bring in hazardous waste items for disposal. This is done once or twice a year, usually at no charge to the individual.

Commercial entities may need to locate a paid vendor to dispose of hazardous waste.

Art lives in Illinois, where the state EPA offers help. There's info at www.epa.illinois.gov/topics/waste-management/waste-disposal.

If you live elsewhere in the U.S., here's a link to an EPA resource list for specific information for your locale: <http://tinyurl.com/RW-waste>.

Art opted to contact Chicago Crime Scene Disposal Co. The situation really came out in his favor. The company's lead disposal expert lives in Art's town and works for the local fire protection district. He found a disposal site down south that will accept the rectifier tubes.

Contribute to Workbench. You will help your fellow engineers and qualify for SBE recertification credit. Send Workbench tips to johnpbisset@gmail.com. Fax to (603) 472-4944.

Author John Bisset has spent 46 years in the broadcasting industry and is still learning. He handles West Coast sales for the Telos Alliance. He is SBE certified and a past recipient of the SBE's Educator of the Year Award.

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Jeff Loughridge Was Longtime Engineer

Spent much of his career in Washington and Richmond

OBITUARY

BY MIKE FRIEDMAN

Jeffrey "Jeff" Loughridge was a dedicated broadcast engineer who died on Oct. 13 in Savannah, Ga., due to complications from colon cancer. He was 55.



Ed Stone/PhotographAmerica

He is best remembered for his accomplishments at CBS Radio Washington, where he most recently served as market director of engineering. Jeff worked with CBS Radio from 2000 until 2012.

While attending Florida Institute of Technology, Jeff began his radio career at WWBA(AM/FM), St. Petersburg, Fla.

He moved back to his hometown area of Washington in 1983, and he attended The American University, pursuing and later receiving a degree in audio technology. While attending AU, he worked for Bonneville Satellite as a video/satellite engineer. He also did contract engineering work for WPRW(AM) Manassas, Va. Jeff later worked in the engineering department for WPGC(AM/FM), Washington, where he met longtime friend Tom McGinley. Along with engineering duties, Jeff had a weekend air shift on WPGC. By Tom's account, Jeff was a pretty good DJ.

Later in the '80s, Jeff worked for Fine Tuning Associates, which eventually landed him in Richmond, Va. In 1989, he formed his own contract engineering company, Audio Concepts and Engineering. Jeff relocated the broadcast studios for WCDX(FM) Richmond, and eventually added more stations to the Sinclair Communications Richmond cluster. He spent 11 years in Richmond with Sinclair as his largest client. Later he became an employee at the radio cluster when it was purchased by Radio One. He's also noted for relocating the facilities of WUPV(TV).

Jeff also provided AM NRSC measurement services and for a period

of time was the Virginia Association of Broadcasters FCC Technical Station Inspector. In 2000, Jeff returned to WPGC and WHFS(FM) under the ownership of CBS Radio where he later became market DOE before leaving in 2012. That was the year his father passed

away; Jeff was diagnosed with colon cancer two months later. He worked for TeleworX on the Next Generation Interconnection System project until 2014 when he accepted a position with iHeartMedia in Savannah, Ga., to live the coastal life.

Jeff is survived by his wife of 23 years, Susan Loughridge, whom he met at WPGC, his daughters, Sarah and

twins Rebecca and Melissa. Family was very important to Jeff.

In recent years, he pursued his life-long passion for scuba diving. He was also a scuba instructor and taught under the name 4Atmospheres in association with Patriot Scuba. He was a member of the Society of Broadcast Engineers and Professional Association of Diving Instructors.

A memorial service was held for Jeff at Heritage Presbyterian Church, Alexandria, Va., on Saturday, Oct. 31.

The author is chief engineer for SummitMedia in Richmond, Va.

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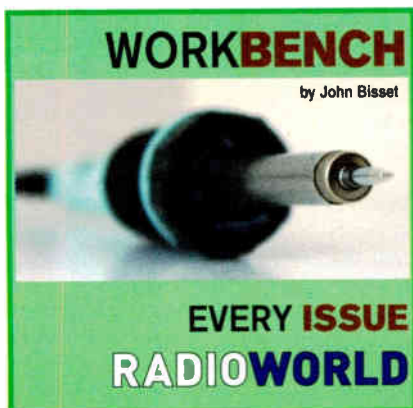


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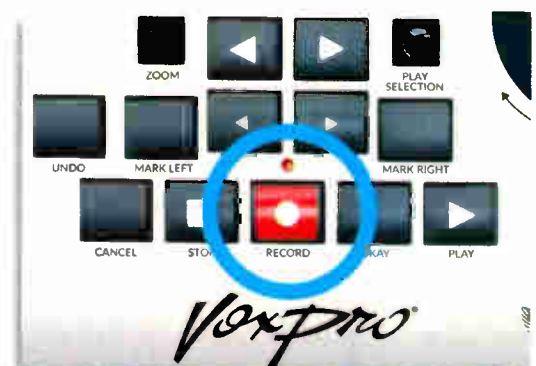
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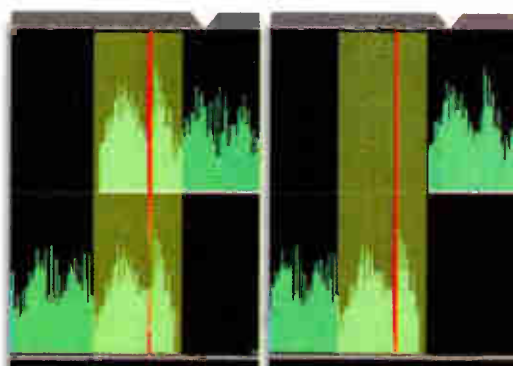
It turns out to be THIS guy and he wants to talk.



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World Radio History



5 Surprising Places for IP Audio

It's getting late. Do you know where your audio network is?

Your audio network could be going places and doing things you might not be aware of, from remote sportscasts and for STLs to hanging out in malls, convention centers and auditoriums.

Modern audio networks are being used for a slew of new applications because of newer, smarter I/O units. For example, WheatNet-IP BLADE-3s combine integrated control with audio tools such as mixing and audio processing at every connection point in the network for a multitude of possible uses.

It's almost like having a complete studio in 1RU wherever you need one. And with AES67 now promising to interface your network to just about any audio device out there, there's no telling where IP audio will be off to next.

For the entire story... INN28.wheatstone.com

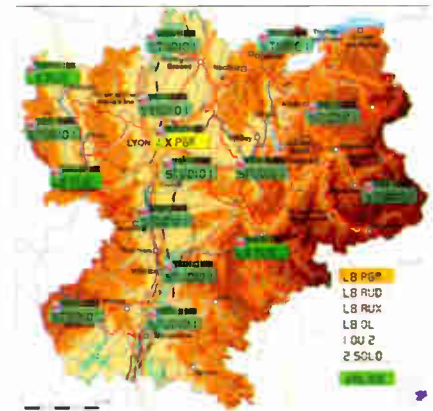
AoIP Tip: Gaming the System

If you are doing some serious sports coverage this season, here's a tip.

You can create a map of all your sports venues through one customized Screen Builder interface for your WheatNet-IP audio network, and click between them to bring in feeds, set processing, and call up mic presets.

All you have to do is arrange faders, knobs, buttons, clocks, timers, meters, events and other widgets in a drag and drop environment. Then link widgets to hardware such as microphones, codecs, and consoles located in the network and determine what each widget does using a simple Script Wizard.

For the entire story... INN28.wheatstone.com



Clearing the Air on Loudness

Did we hear you say, "Let's start an audio cleanliness war?"

"I want to start an audio cleanliness war.. Who is with me?"

It was music to our ears when we saw these words posted on the Facebook "I

Love Broadcast Audio Processing" discussion page recently. If only!

In many ways, we at Wheatstone have been slowly working our way toward that day when ears no longer bleed and modulation monitors look like they're glued to 100%.

So while we've built into our audio processors the tools you need for both a loud and an open and clear sound on the dial, so much more can be done. Even with so many AirAura's, VP-8's and FM-55's in the field, it's time to talk about what it takes to create clean audio on the radio -- something that can be applied no matter what type of processor you use.

For the entire story... INN28.wheatstone.com



He Who Listens, Likes!

You're going to love how BestRadio Brazil measures listenership, and we think you'll like the studio too!

What's not to like about independent online station BestRadio Brazil in São Caetano do Sul, São Paulo, Brazil?

The music is eclectic, the sound is distinct, and the studio is magnificent. BestRadio Brazil is using WheatNet-IP audio routing and control with an IP-12 digital audio console, which pulls double duty for live webcasts as well as for production purposes.

For the entire story... INN28.wheatstone.com

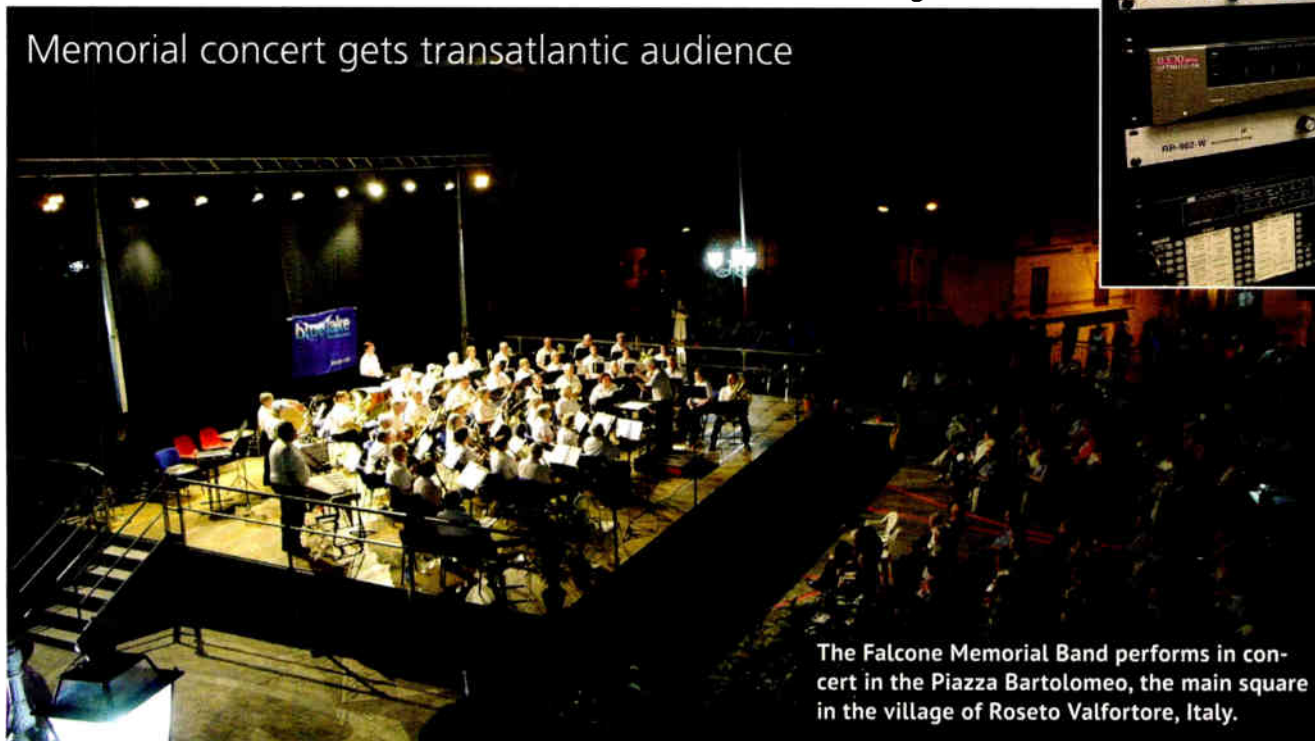


MAKING THE ABSOLUTE BEST IN RADIO FOR OVER 35 YEARS



Blue Lake Public Radio Broadcasts Live From Italy

Memorial concert gets transatlantic audience



The Falcone Memorial Band performs in concert in the Piazza Bartolomeo, the main square in the village of Roseto Valfortore, Italy.



Steve Albert, Blue Lake Public Radio's station manager.

FIRSTPERSON

BY JOHN SCHNEIDER

Blue Lake Public Radio in Michigan operates stations WBLU(FM) 88.9 in Grand Rapids and WBLV(FM) 90.3 in Muskegon. These classical and jazz stations are managed by Blue Lake Fine Arts Camp, a summer school of the arts located on a 1,400-acre campus in the Manistee National Forest near Twin Lake.

Each summer, the camp serves approximately 5,400 students with programs in music, art, dance and drama and offers some 175 performances during its Summer Arts Festival. Many of these performances are heard live over Blue Lake Public Radio.

Blue Lake also operates an international exchange program, which sends student and adult bands touring through Europe each summer.

The first tours were led by Dr. Leonard Falcone, the director of bands at Michigan State University for 40

years, and the 1971 tour included a concert in his home town of Roseto Valfortore, Italy. Falcone planned a second visit to the village in 1985 but died shortly before the tour left. The trip went on despite his death, and that group was christened the Leonard Falcone Memorial Band.

This summer, in honor of Falcone's legacy and to commemorate the 50th anniversary of Blue Lake Fine Arts Camp, a second Falcone Memorial Band was assembled. The band gave eight performances in Italy from June 27 to July 12, including a return concert to Roseto Valfortore exactly 30 years after the first memorial band visit. The 46-member concert band consisted of former Falcone students, Blue Lake faculty members and alumni from previous Blue Lake international bands.

The performance in Roseto on July 7 took place 100 years to the day after Falcone's Ellis Island arrival in 1915, marking his emigration to America from Roseto Valfortore at the age of 16.

TRANS-ATLANTIC BROADCAST

At WBLV and WBLU, the decision was made to broadcast the historic concert live from Italy.

To make that possible, Blue Lake's Vice President for International Programs and Broadcasting Bill McFarlin enlisted the help of Antonio Monaco, the owner of Radio Centro Roseto 88.0 FM in Roseto Valfortore. The two stations agreed to cooperate on producing the program, which would be

heard live on both stations July 7 at 10 p.m. Roseto time, 4 p.m. in Michigan. The connection between the stations would be made over the Internet using IP codecs.

Steve Albert, Blue Lake Public Radio station manager, said the planning began about four months prior to the broadcast. As to the logistics, Albert said, "We used our Telos Z/IP One codec at the studio, which is integrated into our Axia Livewire network. We used cellphones and texting to coordinate the timing."

In Italy, Radio Centro Roseto rented a Z/IP One codec from Fiori Conforto of the Telos distributor Funky Junk in Milan. The stations tested the system in advance between their studios, and the connection was established through Telos' Z/IP server in the cloud.

On the night of the concert, a temporary stage was set up in Roseto's central square, and Monaco's staff set up a portable console desk in front of the stage. "We used several pieces of equipment for the broadcast — several Neumann TLM-103 microphones, mic preamps, a mixer and an audio processor," he said. "This was good experience for me and our station."

But on the evening of the event, disaster almost struck.

According to Monaco, "On the night of the concert, we moved the codec over to our portable studio on the main square. We connected to the Internet through a nearby business that kindly offered us the use of their broadband

connection, but we had problems making a connection from the field. I don't have any experience with codecs, and this was my first time trying to use one. However, the Telos distributor, Mr. Conforto, was kind enough to make himself available, and he connected into the codec remotely to resolve the problem." Once established, the connection was maintained throughout the broadcast.

AUDIO CHAIN

To get the audio for Radio Centro Roseto's broadcast, they captured the live streaming from Blue Lake Public Radio's website and rebroadcast it in Roseto. In other words, the concert audio went from Roseto to Michigan, and then back again to Roseto.

"The audio quality was only fair," said Monaco. "It would have been better if we had been able to make a direct connection."

He added, "In addition to our listeners on the air, 600 people listened to the broadcast through our station's website."

In the U.S., many listeners around the country, including Blue Lake friends and band member families, heard the Blue Lake broadcast on line.

The Blue Lake organization hopes this historic concert helped establish musical ties between two communities and two countries, which will lead to future concerts and more radio broadcasts.

FOR MORE INFORMATION:

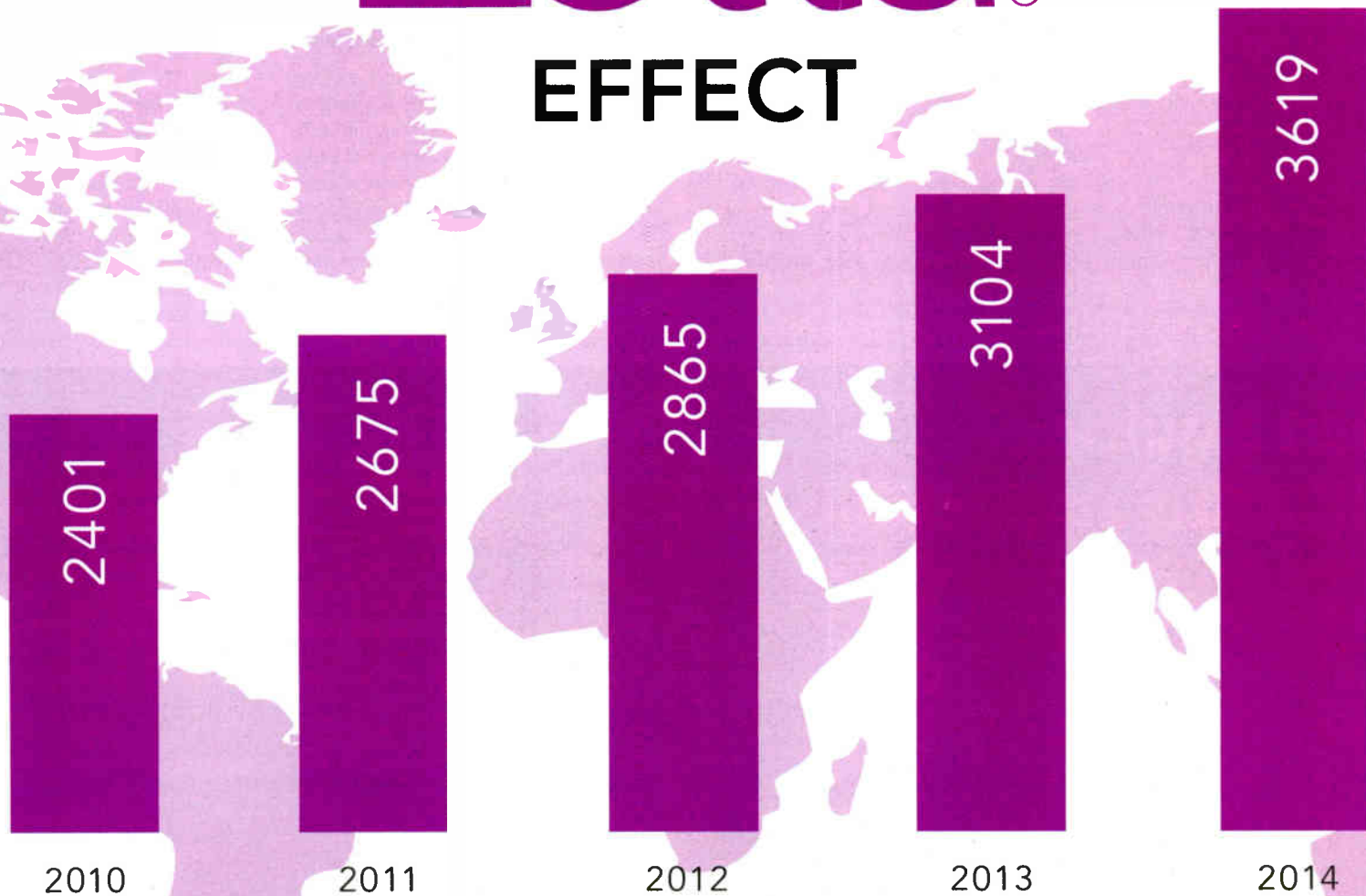
Blue Lake Public Radio
bluelake.org/radio
Blue Lake Fine Arts Camp
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Radio Centro Roseto
radiocentroroseto.it
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Dash Radio Simplifies Streaming With ENCO

DAD rewrites one-stream/one-server rule, handles multiple station load for streamer

USERREPORT

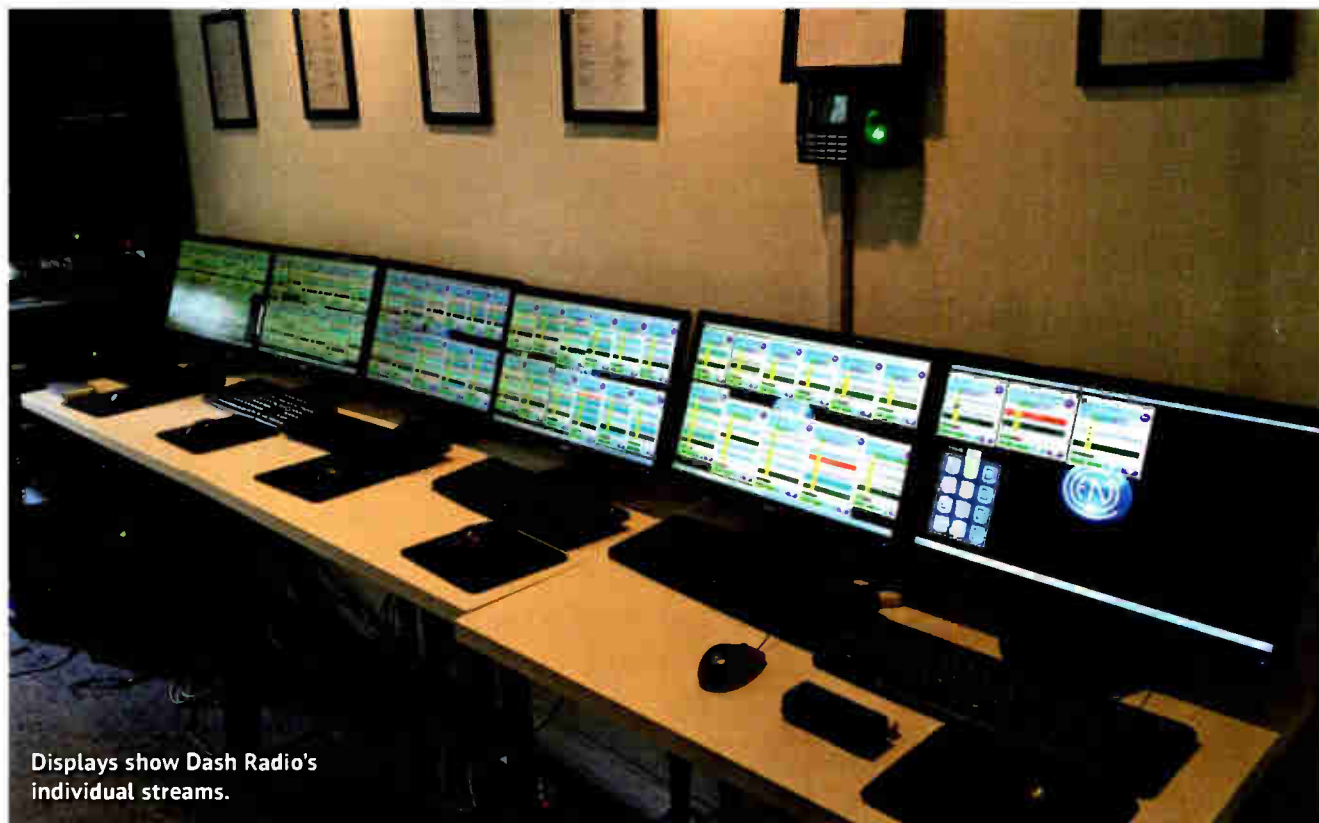
BY JOHN HALTERMAN
President of Operations
Dash Radio

LOS ANGELES — The operation of a multichannel streaming radio service quickly can become expensive. The typical studio architecture uses a “single-license, single-machine” model that delivers one channel per automation workstation over an internal distribution network to an encoding bank. The various channels are processed and sent to a CDN for delivery to consumers.

At Dash Radio, we have worked hard to innovate a more efficient and lower-cost way to stream multiple channels of unique content to our listeners. What at first seemed like a highly challenging proposition was simplified by the technology and service-oriented approach of ENCO.

BUILDING

Dash Radio is a human-curated streaming service that delivers 65 radio stations and upwards of 300 programs to listeners worldwide. Along with my partner DJ Skee — both veterans of terrestrial radio — our aim was to bring



Displays show Dash Radio's individual streams.

traditional radio curation to modern Internet and mobile app-based streaming. Our DJs — which include well-known musicians and celebrities, notably Snoop Dogg — are free to build the playlists they feel best serve their shows and their audiences, eschewing the algorithm-based song choices of many streaming models.

Along with delivering a diverse dynamic radio experience, we wanted

Dash Radio to be an ad-free service. The budgetary concerns of running an ad-free streaming service with the technical infrastructure of a terrestrial radio network seemed, at best, a significant challenge. While there are many excellent radio automation systems on the market, we were dismayed to find most vendors strictly followed that single-machine, single-license model — essentially requiring a dedicated automation

workflow for each station.

Upon having a conversation with the ENCO team, we realized ENCO was our only affordable path to achieving our goals. They delivered a customized DAD platform that can encode and deliver up to 16 ad-free stations from a single workstation. This eliminates a significant amount of encoders and workstations from the technical infra-

(continued on page 22)

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TECHUPDATES

FRAUNHOFER IIS HIGHLIGHTS NEW CONTENTSERVER FEATURES

New features of the Fraunhofer IIS ContentServer R6 technology are intended to allow broadcasters to bring audio content and data services to air with ease. Its flexible configuration provides the ability to match diverse needs of broadcasters and network operators.

The users range from community stations to local or regional broadcasters, up to large-scale national networks. Device manufacturers benefit from a special edition of the ContentServer that provide for the generation of test streams, e.g. for standard compliance testing.

New features of R6 include Emergency Warning Functionality to alert the public when disaster strikes; for DRM: xHE-AAC as the standard audio codec and support for multiple PAD multimedia applications per audio service; internal audio encoders with AES67 AoIP live audio input (Livewire, Ravenna) as well as advanced support for remote audio encoders; a monitoring system that controls system functions including content provision; and added support for data provision via XML/JSON RPC API.

Fraunhofer ContentServer R6 technology is available for DAB and DRM as a package, including hardware and specific customer support services, from Fraunhofer's OEM partners.

For information, contact Fraunhofer in Germany at 011-49-9131-776-6089 or visit www.iis.fraunhofer.de/en/ff/amm.html.



WIDEORBIT OFFERS STREAMING TOOLS FOR BROADCASTERS, PODCASTERS AND PUREPLAYS

WideOrbit says that its digital audio platform tools are comprehensive digital audio monetization and distribution solutions suitable for broadcasters, podcasters and pureplays.

Its solutions include streaming, podcasting and ad sales; they are said to improve operational efficiency, develop listeners and increase revenue.

The digital audio platform includes WO Streaming, which enables digital audio publishers to build audiences, monetize content and deliver user experience on connected devices. WideOrbit Streaming makes it possible to insert, manage, track and report on digital audio marketing campaigns. Stations running WideOrbit's WO Traffic advertising management solution get streamlined traffic workflow across broadcast and digital.

WO On Demand is a podcasting platform for content management and dynamic audio ad insertion. Podcasters can take advantage of audience insights from customizable tools for real-time reporting and analytics.

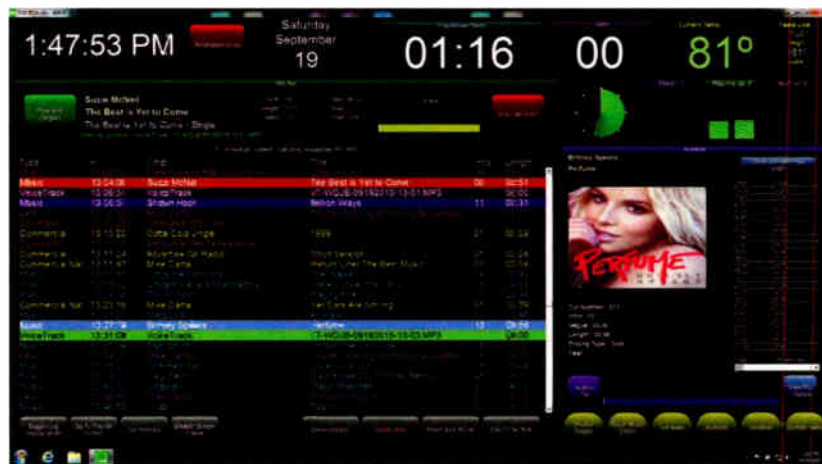
Programmatic Digital Audio is WideOrbit's automated solution for connecting digital audio ad inventory supply with demand from agencies and brands. The audience-based real-time floor price optimization means users can get the most value from their ad inventory, the company says.

For information, contact WideOrbit in California at (415) 675-6700 or visit www.wideorbit.com.



DJB SOFTWARE OFFERS STARTER INTERNET BROADCASTER PACKAGE

Automation and radio broadcast software developer DJB Radio has a new radio automation software package, Starter, designed for Internet streamers.



The company says that Starter's importing function quickly builds an audio library or users can schedule a URL in the log and run it like a satellite format station. The database manager stores the title track and artist metadata and album graphics plus tight timing segues.

DJB Starter comes with voice tracking module, real-time log editor, phone bit recorder editor, weather and time check, a built-in music scheduler for days or months of advance schedules, and an as-run log report generator of audio played.

Streaming interfaces for SecureNet and other streaming industry hosting service are provided.

DJB Radio-TwitSoft software is also included for Twitter broadcasts along with DJB Expert Web Training and Support. A 30-day demo is available.

For information, contact DJB Radio in Nevada at (702) 487-3336 or visit www.djbradio.com.

WINMEDIA STREAMING PUBLISHES CONTENT

The WinMedia Radio end-to-end content management and automation solution offers a range of modules for content creation — from ingest through playout, archives and multiplatform delivery.

Among these modules, WinMedia Streaming promises to allow broadcasters to "easily and quickly" implement thematic Web radios and publish content on their website, as well as on mobile devices and social networks.

Courtesy of WinMedia Streaming, a single server can stream up to 80 simultaneous streams. A Sound4 card handles signal audio processing and streaming, secures delivery and provides high-quality sound, explains WinMedia. To comply with all devices, it manages multiple formats and sampling frequencies.

Integration between WinMedia Streaming and Sound4 enables the incorporation of metadata so that additional content such as titles, images, and advertising opt-outs can be published.

WinMedia also provides customizable Web and mobile application templates through its WinMedia Web module. A vast array of functionalities is available, including a player broadcasting live streams, ad blocks and podcasts.

For information, contact WinMedia Group in France at 011-33-4-94-10-11-02 or visit www.winmedia.org.



WWOZ Gets Its Groove Online

Big Easy broadcaster gets significant Web presence with StreamGuys

USERREPORT

BY DAVID STAFFORD
New Media Director
WWOZ(FM)

NEW ORLEANS — WWOZ(FM), known as The Guardians of the Groove, is an independent, volunteer-powered community radio station located in New Orleans, broadcasting 100 kW of analog at 90.7 FM, and WWOZ(HD2), an HD Radio channel. The station's programming is 100 percent music-based, featuring the music of New Orleans, American roots music and related genres.

Most of our volunteer hosts broadcast one two- or three-hour show each week, for a total of about 70 programs. We also do a fair amount of live broadcasting, including extensive broadcasts from the New Orleans Jazz & Heritage Festival every spring, as well as other local, national and international festivals and events.

TOOLS

As a small station, we rely on alternate platforms like the Internet and streaming music clips to expand our audience. As an early adopter of streaming technology, starting in the late '90s, we have experienced a lot of growth outside our terrestrial broadcast footprint. Today, approximately half of our listeners come from outside Louisiana.

Since our funding comes mostly from small donations from listeners, reliable and high-quality streams open up potential worldwide revenue sources. It has to be done right, and we rely exclusively on the CDN services of StreamGuys to deliver our programming reliably to the public over multiple streaming platforms.

We started working with StreamGuys in late 2011, and have continued to grow our audience and expand our services. StreamGuys bundles many services into one single, cost-efficient package that's easy for us to understand and best apply them to our internal business and external audience needs. This includes two simultaneous streams, our

mobile apps and a new two-week "On Demand" archive we're implementing across all of our shows.

The latter is being accomplished with SGreecast, a new software-as-a-service from StreamGuys that significant-

ly reduces the technology infrastructure and associated costs previously required to create online side channels. SGreecast delivers a way to create and publish any number of linear radio channels and custom streams, including podcasts and other on-demand content. This is an excellent example



ly reduces the technology infrastructure and associated costs previously required to create online side channels. SGreecast delivers a way to create and publish any number of linear radio channels and custom streams, including podcasts and other on-demand content. This is an excellent example

of how StreamGuys' service offering continues to evolve with our online business model, and enables a significant amount of additional live and on-demand service launches down the road, as desired. StreamGuys excels in two other important areas that help us deliver a comprehensive streaming model as a radio broadcaster. First, over the years they have supported occasional live video streams associated with musical performances and productions. Their robust and reliable delivery infrastruc-

ture provides the bandwidth we need to delivery a high-quality video service alongside audio channels on the same delivery platform — while also supporting multiple consumer formats for playout on many devices.

StreamGuys also provides a rich business software portfolio that helps us monitor and understand our business needs both short and long term. From a quality of service perspective, SGAlerts quickly signals our staff regarding network performance and other quality issues via immediate email alerts, which can be sent to the devices of our choosing. Furthermore, SGreports is a detailed log processing service that offers in-depth information about content usage from any consumer device. In addition, there is the SGmon service which offers a detailed view of historical statistics, including peak listeners and viewers over a period of time, concurrent audio numbers, and the devices and locations of each visitor.

We like to focus our efforts on programming, as well as generating the necessary funding we need to operate our station to its highest potential. We are happy we have the experts at StreamGuys to help us manage the distribution of our online channels. StreamGuys has proven a reliable partner that has been key to our success. And while technical issues have been very rare, the company's technical engineers have been helpful and supportive, ensuring our listeners worldwide have the highest quality of experience.

For information, contact Jonathan Speaker at StreamGuys in California at (707) 667-9479 or visit www.streamguys.com.

ENCO

(continued from page 20)

structure, dramatically reducing operational costs while enabling the same automated workflow power of a terrestrial radio network.

The low cost and high reliability of the system allowed us to launch a 50-station service within three months — more than twice our original intention of 20 stations. That number quickly scaled to 65 stations, with most workstations streaming 12 simultaneous channels at this time. The reliability has been impressive considering how we run multiple live playbacks from each machine. We are pushing this system hard, and to date the system has provided the horsepower we need.

Additionally, advanced features such as remote voice tracking and automated file transfer capabilities eliminate the challenges of working with DJs broadcasting around the world.

DAD's remote voice tracking software has been a huge benefit to the operation, given that many DJs are based outside of Los Angeles (home of Dash Radio headquarters), or are touring musicians broadcasting live from the road. ENCO brings a lot of value by helping us operate a worldwide platform, instead of forcing DJs into the studio. As our DJs can open any Web browser to achieve voice tracking for broadcasts, we see this is a truly game-changing application

in the radio automation universe.

The automated workflow is further empowered through ENCO's integration with MusicMaster scheduling software, which streamlines and accelerates playlist creation for playback from DAD; and ENCO's Dropbox utility, which enables drag-and-drop file transfers of complete shows, separate songs and voice tracks, imagery and more into dedicated program folders.

The Dropbox utility has become the Dash Radio production team's favorite feature, given the "hundreds" of file transfers happening from around the world every day. DJs add content to their Dropbox folders, and everything is organized and ready to go. The Dash Radio production staff can export those libraries using DAD's Cut File application directly into MusicMaster, which automatically adds song, title and other identifying data. The organizational structure afforded through this application been a time-saver for both new station launches — which we can accomplish within 12 hours — and ongoing content management for existing stations.

We expect that Dash Radio will add more DAD systems as stations are added to the network. However, without the innovative technology of ENCO and their customer-oriented approach to understanding our needs, Dash Radio wouldn't exist.

For information, contact Ken Frommert at ENCO Systems in Michigan at (248) 827-4440 or visit www.enco.com.

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TECHUPDATES

MODULATION INDEX PROVIDES STREAMING TOOLS

Modulation Index, developers of the original Orban Opticodec HE-AAC streaming encoders, now offers new professional streaming audio encoders. Legacy HE-AAC encoders are available for HTTP-ICY and RTMP, including protocol updates and options for Icecast2/Shoutcast 2 and Flash media servers.



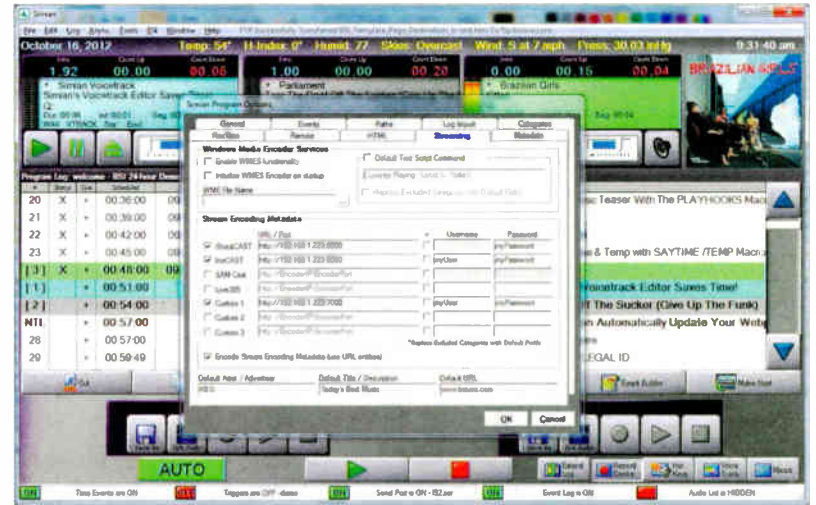
For the new generation of streaming, the company says, HTTP HLS adaptive streaming encoders with StreamS HLSdirect and DASHdirect leverage standard Web server and server infrastructures or cloud storage to stream live audio, reducing delivery costs while increasing reliability. This does not require special Web server modules or traditional streaming servers or services. It also does not rely on legacy ICY Shoutcast/Icecast or proprietary Adobe Flash RTMP security-risk protocols to deliver HLS/DASH, the company says.

Frame-accurate metadata provides tight artist/title information for a good user experience, as well as control for commercial content insertion, which the company says prevents embarrassing program breaks. Multiple source packages run as a Windows Service rather than a Windows Application for no log-in operation and enhanced reliability and efficiency.

Encoder packages include 2-, 4-, 8- and planned 16-source versions that can be bundled with the new Orban Optimod-PCn software processing application. A line of appliances includes popular AoIP AES67 protocols, an AoIP grandmaster clock and optional IODigi2 AES input, also available as a standalone AES to USB audio interface.

Completing the StreamS line of Internet streaming products is PAD::bridge, which provides program-associated data management and distribution. It includes PADvertise, which allows promotion and/or commercial schedules to be inserted after the traditional artist/title information is displayed.

For information, contact Modulation Index in Texas at (940) 206-7702 or visit www.streamindex.com.



BSI SIMIAN SIMPLIFIES WEB STREAMING

Broadcast Software International says its Simian Pro and Simian Lite make streaming over the Internet easier.

Web-based stations can use their favorite stream encoding packages — Shoutcast, Icecast, Live365, SAMcast or others — to encode their station, while Simian simplifies the output of metadata with prebuilt templates so that listeners can see the artist and title information for currently playing artists.

Simian Pro and Lite have an affidavit generator that analyzes the daily as-run logs, giving users a report suited for Sound Exchange. Simian 2.3 Pro also has optional remote clients for PC, iPad and iPhone, which allow talent to connect to the studio and record voice tracks, create logs and perform other tasks.

For stations that run a Web stream as a simulcast, Simian 2.3 Pro now has the ability to send software triggers to another Simian Pro 2.3 system via TCP/IP, so a secondary Simian system can replace terrestrial spots with Internet-only spots, perfect for generating extra revenue with Web spot packages for clients.

For information, contact Broadcast Software International in Oregon at (888) 274-8721 or visit www.bsiusa.com.

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Telos Gets the River's Stream to Flow

Thanks to Z/IPStream 9X/2, Columbus rimshot's stream is as good as its over-the-air signal

USERREPORT

BY MATT LEVIN
Chief Engineer
One Connection Media Group

COLUMBUS, OHIO — Since live radio streaming began to show up on station Web pages with Real Player, then moving on to Windows Media and the first Shoutcast streams with Winamp, it's been a challenge to produce good-

years ago to hear about Omnia's software-based Web processing and encoding program, Omnia A/XE.

At the time we were using simple onboard processing into a Windows Media Encoder box that left a lot to be desired from a quality standpoint, but at the time that seemed to be pretty standard across the industry. The ability to move from Windows Media to the AAC codec was a huge improvement in quality, not to mention finally being able to include metadata, which Windows



sounding streams that could rival the quality of traditional over-the-air quality. I remember trying to listen to many of those early streams only to be disappointed with both the constant buffering and the poor audio quality.

With today's broadband availability and coding technologies, most of the problems have been solved except when it came to processing, where — unless you used a traditional FM audio processor — the quality was still lacking. With the current push towards quality rather than just being the loudest on the FM dial, it's only a natural progression that Web processing to follow that same parallel.

PROCESSING

Streaming has become a huge part of our business strategy at 104.9 The River. Much of our "at work" listening in downtown Columbus is done on a computer, due to the fact that we are a "rimshot" station. We have also been long-time Omnia customers, preferring their FM processors over the competition, so naturally, I was excited several

Media does not support. A/XE's dedicated three-band software processing sounded surprisingly good as well at the time, and actually sounded a lot better than more expensive dedicated streaming solutions from other competitors.

Fast forward to the beginning of 2014 when the Omnia 9/XE software was released. Having heard much about the Omnia.9, and hearing streams being fed from the Web path of an Omnia.9, I couldn't wait to get the software version.

When I finally did get the software in house, the interface took a lot to get used to, as it's quite different than any other Omnia processor. Once it was set up I was blown away at just how good our stream sounded. I think the front end of the .9's engine with the declipper and undo technology really allows the encoders to work much better.

I've noticed over the years that extremely dense content doesn't do well in low-bitrate encoders, so the front end of the .9 really shines in the lower bitrates. Having said all of that, my one disappointment with the 9/XE software was that the Web encoder portion

seemed actually to be a step backwards compared to the A/XE software, in that it didn't support some of the distribution formats that the A/XE did. It felt very outdated.

DIRECTIONS

Enter the Z/IPStream X/2 and 9X/2, which rebranded the Telos Alliance Web products. The Telos Alliance has taken the older A/XE software and overhauled it to meet current needs with native support for not only Icecast/Shoutcast v2 and RTMP, but native support for HLS streaming with adaptive bitrates.

For those who may not know what this is, you need to read up on it! This is where all Web streaming is headed, as the Adobe Flash platform is slowly being phased out. We have been using HLS for over a year now (via a software solution which we had to purchase separately at that time), but had the Z/IPStream software existed then we would not have had to purchase the separate HLS software, as Z/IPStream

does all the work, requiring only a simple Apache or IIS Web server.

Add to all this the choice between the traditional Omnia three-band processing of the original A/XE software (now incorporated in the Z/IPStream X/2), or the updated Omnia.9 processing of the Z/IPStream 9X/2 software, and you have the power to create the best-sounding stream with the widest compatibility across delivery platforms. Not to mention Z/IPStream Adaptive Technology, where the connection between streaming server and listener is automatically managed, dynamically adjusting bitrate and audio quality to maintain a solid connection with the best possible audio — regardless of Wi-Fi limitations or Internet behavior.

With the age of the "digital dash" upon us, there has never been a more critical time for creating a Web stream that sounds just as good, if not better, than your over-the-air FM product. The Z/IPStream 9X/2 can help you accomplish that.

For information, contact Clark Novak at the Telos Alliance in Ohio at (216) 241-7225 or visit www.telosalliance.com.

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Looking for a broadcast excerpt of a San Francisco Giant's taped off of KSFO radio from 1959, interviews with Willie Mays, Dusty Rhodes & some play by play excerpts, also features a homerun by Willie Mays and Felipe Alou stealing second base, running time is 18:02, also looking for SF Giants games and/or highlights from 1958-1978 also taped off KSFO Radio. Ron, 925-284-5428 or ronwtamm@yahoo.com.

Looking for KFRC signoff radio broadcast from 1930 Andy Potter, running time is 0:22 & also the KLX kitchen the program guest is Susanne Caygill, a discussion of women's affairs with a long promotion for Caygill's appearance at a local store. Anne Truax, Susanne Caygill, running time is 13:44. Ron, 925-284-5428 or email ronwtamm@yahoo.com.

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Wanted: schematics for McMartin gear, such as LR

1004 limiter, MS-10 amp, etc. Also want CCA gear, and always looking for the same gear everyone else in these classifieds are looking for, so contact me, too! richmix8@gmail.com, Skype:richmixlive.

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Take Steps to End the Loudness War

You want a sound that's loud and clear — these tips can help you achieve it

COMMENTARY

BY MIKE ERICKSON

Before I left to work for Wheatstone six years ago, I was the chief engineer for WCBS(FM) in New York City. At the time, WCBS was somewhat aggressively processed but not over the top. I had designed a unique signature with feedback from programming and talent, and the station maintained a consistent No. 1 or No. 2 rating in the market. The processing was appropriate for the format. The station that sometimes beat us to No. 1 has a very open sound, while the station that had the most aggressive processing was around No. 15 and never seemed to budge!

I've seen this scenario play out in other markets as well, where the high-rated stations aren't necessarily the loudest, but had a great combination of good programming and appropriate processing.

The truth is that most modern audio processors give you the tools to achieve an open and clear sound on the dial. Some can be very loud and very clean as well. But it takes a bit more than just the processor itself to achieve that second goal.



Mike Erickson

If you've ever spent good money on a brand-new processor only to be disappointed with the noticeable artifacts coming out of the air chain, you already know the importance of good audio going in.

Just about any new processor will sound better than your previous processor when you feed it linear audio. You'll hear amazing detail, less "homogenization" of the audio, more perceived dynamic range ... all the things that sold

you on the processor in the first place.

But that's only if the audio is linear, and your air chain isn't packed with analog distribution amplifiers that date back to the Clinton administration. Your new processor will bring out all these bad details in your audio, details that your old processor covered up.

Your high-performance sports car (the processor) needs premium fuel (linear audio) to sound good. But what can you do besides redo the entire music library?

Here are a few steps you can take. These are worth taking for any radio station, whether or not you start with linear or lossy audio.

Step 1. Check the audio path from end to end. Remove any and all unnecessary gear between the console and the processor, and perhaps even some after the processor as well. I ran into a situation where a very old composite clipper, which the engineer swore was on his backup chain, was in fact on the main air chain and doing horrible things to the output of a brand-new processor.

Step 2. Standardize levels on live broadcasts. Many consoles use the dBfs scale ... but 0 dBfs is clipping! On this scale, -20 dBfs is about where you want to be for proper headroom. This applies directly to the production department as well as the on-air staff.

Step 3. Establish how spots are ingested into the system. The use of some processing to sweeten the audio is okay, just don't overdo it. Use effects processors to create but don't be deliberate. Stereo enhancements in spots can sometimes become over enhanced on the air.

Step 4. Relegate clip restoration processors to the right studio. For those who like to use clip restoration processors, the best place to do it is in the production studio on individual pieces and not in "real time" using an audio processor. I have heard some good things from these clip restoration algorithms, but I've also heard them play tricks on audio that doesn't need restoration. Your best bet is to use clip restoration on a case-

by-case basis, and only in the production studio.

Step 5. Use the composite output of your processor (be it analog composite or AES composite) when possible. The use of the AES left/right output moves the stereo generator to the exciter. While there are many good stereo generators in today's exciters, none compare to the one you can find in any modern

Your high-performance sports car needs premium fuel to sound good.

audio processor. Also, composite processors in today's modern boxes have advanced to the point where it's almost a free lunch. You can literally add that extra dB of loudness and get away with it using the composite output. That's something that isn't available on the AES left/right output.

Step 6. Optimize your STL! I can't tell you how many stations I have seen using a compressed STL with lossy audio on payout ... and wonder why the station sounds so terrible. Dueling algorithms and audio processing do not get along.

Step 7. Maintain your transmitter. Transmitter site maintenance is key to making sure your station sounds good. Proof of performance, while no longer required, is always a good idea. The engineer and the transmitter building should not be strangers! Regular maintenance can only help your audio in the long run.

Now I'm sure that some of these things fall under the category of "easier said than done" for many readers. If that's the case, and especially if you are stuck with lossy audio but are looking to get the most out of that new processor, your best bet is to go for a more open sound. On the flip side, the better your source audio, the louder you will be able to make your station without egregious side effects.

Remember, at the end of the day, listeners tune in for content.

The author is systems and support engineer for Wheatstone in New Bern, N.C.

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

READER'S FORUM

GRAMMAR

In deference to Rick Miller ("Grammar Foul," Nov. 4 issue), I never took Latin, and my liberal arts degree is in psychology, not English, but I must come to the defense of Alan Jurison. As a child of the sixties I am acutely aware of sexism, in language and elsewhere. Throughout college I always used the awkward his/her and the more clever s/he in my writing.

Later I came across a book titled "The handbook of non-sexist writing" (I am pretty sure it was the 1981 Women's Press book by C. Miller and K. Smith, but I am not sure). One of the more interesting points in the book regarded the facts that a) English needs a non-gendered singular pronoun; and b) that language is ultimately a living thing that grows and changes, albeit slowly (the ultimate democracy one might say). It therefore concluded that the use of "their" in the singular was therefore logical in the long run, given no one had invented anything better.

I still use s/he (and continued to do so in college even when some profs corrected me) and sometimes use "his/her," but I also added "their," as a singular, to my lexicon.

My minor was in communication sciences, and the bit about language evolving made a lot of sense to me (just look up the "great vowel shift" for a fascinating historical example). I do realize however, that at any given point in time the rules are, well, the rules, so I forgive English teachers (and Mr. Miller) who enforce them.

Rolf Taylor
Rocket Engineering and Consulting,
Annandale, Va.

READER'S FORUM

AM NIGHTTIME SURVIVAL IDEA

This is more of an idea starter than a formal proposal, but what do you AM broadcasters think of this?

With the hope that some struggling AMs may benefit from real-world usable night power, and to assess the impact among all stations, I was thinking about a real-time, real-world test that could show what would happen if some Class B AMs stayed on the air using, let's say, 500 watts, into either a non-D tower or their daytime antenna facilities, some Sunday night.

Think about this: In December and January, at 6 a.m. when many pre-sunrise stations sign on with 500 watts into their daytime antenna systems, the ionosphere is still in "full nighttime mode." Has there ever been an interference complaint about a Class B daytime station running 500 watts pre-sunrise? If so, I don't remember it. The Class B channels sound even noisier than the "graveyard" channels at 6:05 a.m. in December, but the listeners to those stations don't seem to even notice it.

Most casual nighttime listeners to AMs tune out by the time the signal is going below the 5 mV/m level. And consider that "micropower" (20 to 100 watt) 5 mV/m signal contours may only go a couple of miles.

So what about trying out what would happen in the real world of AM radio at night in 2015? What if the AM stations that still want to commit to using at least the 500-watt power level, should authorization be granted, sign on during the "experimental period" for "testing" some Sunday night (or series of Sunday nights) as a real-world "experiment" to determine if their local coverage is usable, as well as to assess what interference levels are experienced?

What about asking the NAB or the SBE to work with AM broadcasters to grant a "four Sunday night" special temporary authority (that even may allow interested AMs to sign on at 9 p.m. local time) for a month-long series of Sunday night "experiments" for interested AM broadcasters?

There would have to be some "formalities" to make the test legitimate, such as a "pre-registration" of each station that wants to participate, their frequency, antenna system and power level (up to 500 watts). There are also the problems associated with international agreements, etc. There would be no chance for daytime stations on Class A channels to be part of the test. But this could be a start.

There would need to be an organization (NAB or SBE or ...?) that would coordinate how to gather the resulting test information and tabulating the results, but this "test" would be mainly interpreted empirically, rather than plotting formal, math and measurement results. It would be quite unscientific at the start, but it sure would allow us to try out what would happen in the real world of AM radio in 2015.

Do any of you readers think this would be something worthwhile to try?

Ted Alexander, WB1X
Retired CE and retired from The Telos Alliance
Cleveland, Ohio

TRULY AMATEURISH BEHAVIOR

After seeing some work by amateurs, I would look long and hard before letting some work on my equipment. I say this because at one station, rather than using one wire, they had twisted small, different sizes (12, 14, zip and bell wire) together.

At another station doing the same type of work, when talking to the manufacturer, I was asked "Is it on the air?" I said, "Yes." They said, "Don't touch it."

At a booster FM, the antenna they'd put up was a 10- or 11-meter ground plane.

Some want to change things, praying they don't put the station off the air or worse. This is why, without really looking over their shoulder 'til I feel safe with them, I won't turn amateurs loose on my equipment.

Allan Sotzsky
Hempstead, Texas

PODCAST MUSIC RIGHTS

Ken and Dave, your article ("So You Want to Podcast, Legally? Good Luck!", Oct. 7 issue) is a little misleading around playing 20–30 second music clips. I believe that "fair use" here does not apply to download duplication. Before you launch your podcast using clips I would speak to your copyright lawyer.

Rob Greenlee
Seattle

David Milberg replies:

Rob, your comment to Ken Deutsch's Oct. 7 Radio World article is precisely the sort of feedback and dialogue I hoped would result.

As Ken's story highlights, there are no black letter rules to this gray area of the law. And you are correct, "20- to 30-second snippets" without more detail/explanation as to its application is not necessarily a complete answer to how to claim "fair use" in podcasts that play music. So, let me attempt to do that — specifically as it applies to Rare & Scratchy Rock 'N Roll.

Here is a link to the applicable U.S. copyright law: <http://www.copyright.gov/title17/92chap1.html>. In sum, as you know, "fair use" is a balancing test of four elements. I have listed them below followed by (in italics) my opinion as to how Rare & Scratchy Rock 'N Roll ("R&SRNR") measures up with them.

1. The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; *R&SRNR is non-commercial.*
2. The nature of the copyrighted work; *R&SRNR is a "Rockumentary" intended to enlighten listeners in an entertaining way about the history of various music genres, artists and record labels, etc. In other words, it is not a "music show," but rather a "show about music." It plays the minimum amount of music necessary to illustrate the stories and facts presented.*
3. The amount and substantiality of the portion used in relation to the copyrighted work as a whole ... *R&SRNR uses 30 seconds or less of each song. While there is no clear rule on this murky area of the law, I can cite an example that provides some guidance. A very recent federal appellate case determined that a 29-second use of a Prince recording on YouTube was a "fair use." (Lenz v. Universal Music Corp., Case Nos. 13-16106, 13-16107 [9th Cir. Sept. 14, 2015]) Although that case did not deal with podcasting, and it is not necessarily binding precedent nationwide or even in the case of R&SRNR, it does provide support for my reasoning.*
4. [And] the effect of the use upon the potential market for or value of the copyrighted work. *I believe that R&SRNR actually enhances the potential market for the copyrighted works. I would be surprised that having a "snippet" would discourage a listener from buying the whole song. In fact, it likely would encourage them to make that purchase. Also, as I note on each of the R&SRNR shows I am creating for an "advance inventory," before my anticipated 2016 launch, virtually every song I mention and "snippetize" is available in its entirety on YouTube.*

So those are my thoughts. Rob (I enjoy reading your blog). I invite your further thoughts and would really like to know what other Radio World readers think, too. Hopefully, this sort of dialogue will lead to greater clarity for all.

November 18, 2015

GM JOURNAL

So You Want to Podcast, Legally? Good Luck!

Music licensing requirements for downloadable programs are confusing, with no relief in sight

PERMISSIONS

BY KEN DEUTSCH

Radio stations that play music over the air pay annual fees to three performance rights organizations: ASCAP, BMI and SESAC. Anyone who wishes to stream music from a website can purchase a digital license from these same agencies.

But what if one wishes to create a podcast that contains music, and make that podcast downloadable from iTunes and other distribution sites? To whom does one send the check, and for what amount?

Uncovering this information was not straightforward, as I discovered when I attempted to assist my friend David Milberg, a veteran broadcast executive and air personality who wanted to get an oldies podcast up and running by early 2016.

Milberg is a lawyer and a broadcast law professor; he wanted to keep his podcast legal in all respects and pay any appropriate fees.

I started my research by contacting Kevin M. Goldberg, a member at Fletcher, Heald & Hildrich PLLC.

NOT A SIMPLE QUESTION

"Podcasts are pretty complex," he said. "First, there is a difference between a downloadable podcast and a non-downloadable podcast. The former is likely to be more difficult because it involves mechanical reproduction. There is a compulsory rate for the reproduction of music for the use of the sound recording.

quality as an archived program it must be at least five hours long and even then can only stay on the website for two weeks."

I asked Goldberg about the future of licensing music for podcasts.

"It appears that the problem is not easily answered, but the likelihood of getting to a result that would make much practical sense seems limited," he said.

Very well! I then contacted BMI and was put in contact with Brady Thompson, a digital licensing specialist based in Nashville, Tenn. She told me about BMI's digital license.

"The license will cover all uses of BMI music whether in a podcast, audio only stream, video, etc. The license provides blanket coverage for your URL," she told me.

To whom does one send the check, and for what amount?

Unfortunately the type of podcast I was referring to could be as simple as a single URL, but on iTunes and other similar sites. So it was still legally murky and other similar sites. So it was still legally murky. I contacted the individual publishers for each song I wished to play, and work out permission and a licensing fee with all of them. That hardly seemed practical several emails.

The folks at SESAC, the third PRO, did not answer several emails.

THE RIGHT TO REPRODUCE

World Radio History

A RARE & SCRATCHY

READER'S FORUM

RADIO ADVERTISING DOES WORK

I take exception with one point in an otherwise excellent article entitled "Why Radio Doesn't Work." The article advises to embed a tracer element, i.e. "mention you heard this ad on WJBP and you get a 5 percent discount." However, that almost never works and only leads to more stories about how "radio doesn't work."

Here's what we tell clients who want to do such a test:

You've been given this memo because you've asked us to do something our radio stations don't do — we don't do ads that say "mention this ad to get a 10 percent discount" or "mention this ad to get a free table lamp when you buy any living room suite valued at \$1000 or more on Tuesday after 5."

In many cases, advertisers want to do this to test the radio station. Yet, it's not the radio station being put to the test, it's the offer in your ad. You see, radio works. It's the most effective form of local adver-

October 7, 2015

GM JOURNAL

Why Radio Doesn't Work

24 RADIOWORLD | radioworld.com

COMMENTARY

BY JIM POTTER

How many times have you heard, "Radio doesn't work, we tried it and got nothing from it?" A little digging usually finds the client ran two awful spots per day ROS for two weeks 15 years ago. Had copy and a teaspoon of airtime or completely explain why many retailers shun radio.

We in the biz know radio advertising does work or else we wouldn't be getting paid. Radio works when it's done right, which I believe is rare. Good advertising successfully sells products and services

Stress benefits over features. "This revolutionary shop vacuum cleaner will suck a golf ball through a garden hose" rather than "It's made of sturdy aircraft aluminum." Make it clear why they should transfer money from their account to the advertiser's account.

Spots that hold their attention are built with the application of simple principles.

Use pressure. "Get yours today!" and "This is a limited time offer, so hurry!" works in many cases to goad buyers into buying.

TELL THEM WHERE TO GET IT

This is tricky. Tell them to enter a phone number into their smartphone or use a simple memorable Web URL. You can buy a URL for a few dollars and have it forwarded to the customer's main website. *McNewBracelet.com* is easily remembered; *schurffcampjonesports.com* is not.

For local retail stores, use street intersections and "across from the Starbucks" references rather than a five-digit address. Stores rarely have their street numbers posted on the building where shoppers can spot them.

CLOSE WITH A SUMMARY

Use a tagline like "That's John's Bargain Store for the best selection in camping gear, tents and Matt streets across from Walgreens." From 25 to 30 you've told them what it is (camping gear), why to buy (best selection) and where to get it (John's).

EMBED A TRACER ELEMENT

The best way to test the effectiveness of your spots is to sew a seal like "Tell them you heard about it on WJBP and you'll get a 5 percent discount!" Instruct

burst, draw the listener to endure the rest of the spot. Otherwise, you've lost them. There are 20 chemicals in tobacco smoke that can kill you. You can avoid these by using a non-tobacco vapor inhaler from Bob's Smoke Shop.

CHOOSE THE RIGHT DURATION

Except for political season when agencies pelt stations with 60s, nobody suffers through 60s to the bitter end, we tune-out. The American attention span is almost immeasurably short. Thirties are best for most products, and

run your ad as-is. However, they're more interested in taking your money than in helping you develop an effective marketing strategy. We're not like that.

If you genuinely want to test our radio station, consider giving away \$100 bills to every customer who comes in and says they heard your ad. No purchase necessary, no questions asked. Free \$100 bills. We'll even run the ads for free. How many \$100 bills do you think you'd give away?

Good radio ads consist of a decent offer, a call to action and several other important factors. Yet few people know how to write good radio ads. Our staff has been trained how to do it the right way. Before you invest your hard-earned money on radio advertising, it's important to have a good ad. Call us! We can help do it right.

Larry Fuss
South Seas Broadcasting Inc.
Pago Pago, American Samoa

HOW TO

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tising there is. However, the vast majority of people are too timid to say "I heard your ad on the radio" simply to get a tiny discount or a table lamp. The situation is even worse when the staff at the store is unaware of the offer and the customer feels embarrassed when they have to explain what they heard on the radio.

You shouldn't make your customers jump through hoops to get a deal. If you're going to give away the table lamp, do so whether they mention the ad or not.

Remember, people respond to the need, not to the ad. An ad offering a 50 percent discount on a product nobody needs or wants is still not going to produce results. Sure, there are other stations that will

IBIQUITY ACQUISITION

Surely there must be rejoicing among the angels of the highest heaven now that those who loaned cash to iBiquity are out from under that albatross ("DTS Steps Into Radio's Tech Spotlight," Sept. 23). However, DTS expresses optimism about the future of terrestrial AM and FM broadcasting. May I suggest a new motto for DTS? "Onward, to the 1960s!"

Roy Humphrey
Pittsburgh, Pa.

RADIOWORLD
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Our readers have something to say:

"Workbench is decidedly my favorite. There are always little gems of helpful suggestions; and it promotes the camaraderie among engineers."

Steve Keating
Mission Electronics Corp. of Nevada
Custom Electronics Engineering
Las Vegas

Shown: The Fin

HEIL SOUND
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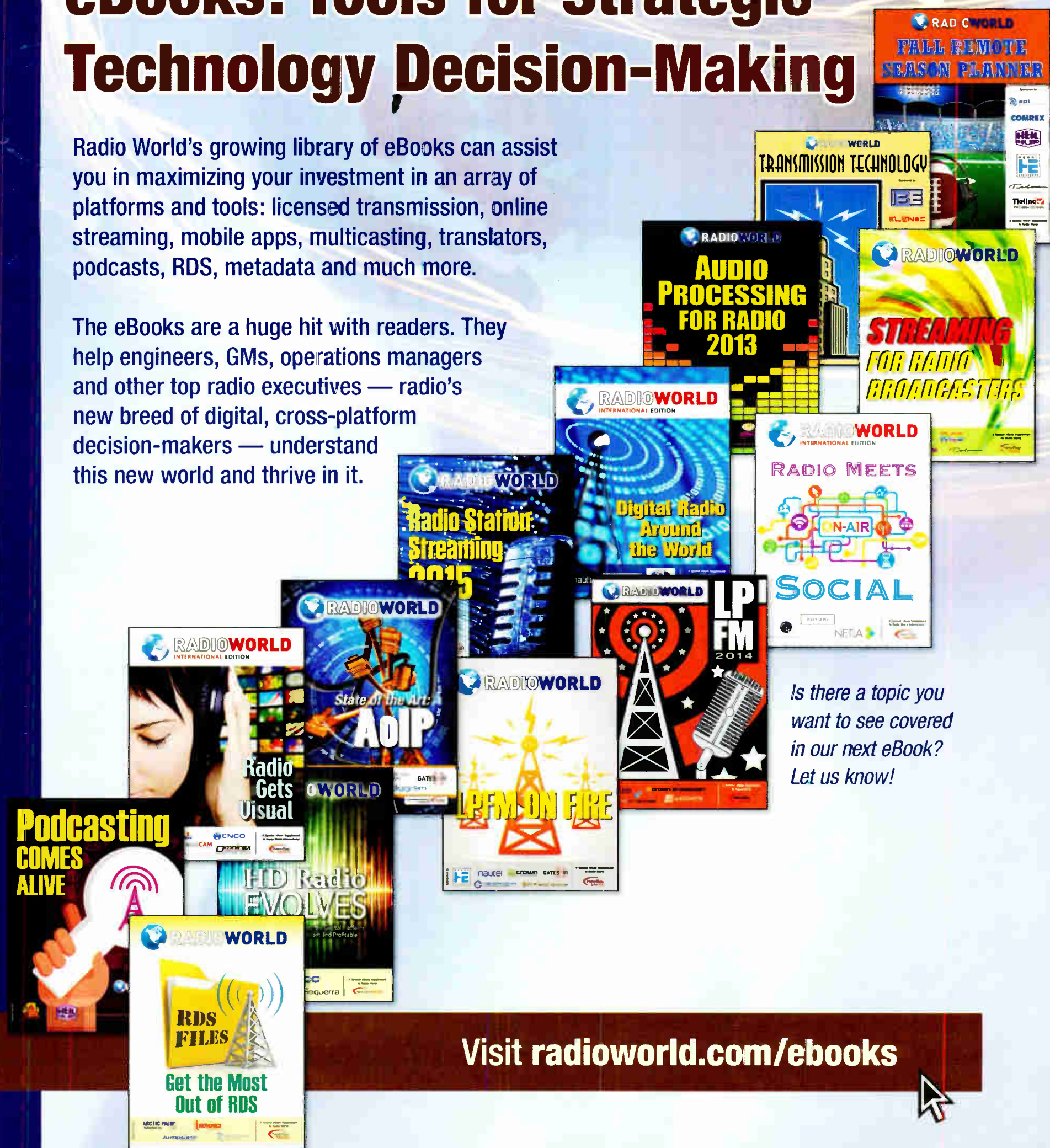
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