



# RADIO WORLD

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## Layer Sets a High Technical Standard



20-year NAB veteran is recipient of Radio World's Excellence in Engineering Award

Courtesy WorldDAB

**BY PAUL McLANE**

David Layer, senior director, advanced engineering in the Technology Department of the National Association of

Broadcasters, is the 2015 recipient of Radio World's Excellence in Engineering Award.

Recipients represent the highest ideals of the U.S. radio broadcast engineer-

David Layer speaks at the WorldDAB General Assembly 2015 and International Digital Radio Symposium in November.

ing profession and reflect those ideals through contributions to the industry. He is the 12th person so honored.

We recognize Layer for his work in radio technology advocacy and education, as well as in broadcast standards setting; for his enthusiastic support of numerous leading engineering organizations; and for his apparently inexhaustible energy. If it seems like David Layer is present anywhere and anytime that radio broadcast technology is discussed,

*(continued on page 4)*

## Going Digital: Our Interest in Radio

DTS CEO says iBiquity Digital and HD Radio provide a strong growth opportunity for the company

### COMMENTARY

**BY JON KIRCHNER**

*The author is chairman and CEO of DTS Inc.*

Oct. 1, 2015 was a great day for DTS Inc. Since our founding in 1993, DTS has been dedicated to making the world sound better by providing leading edge technology and innovative solutions. On that day, we expanded the scope of our business with the acquisition of iBiquity Digital Corp. and entered the world of broadcast radio.

HD Radio technology represents the biggest advancement in terrestrial radio broadcasting since the advent of FM radio and is poised for a very strong future in the USA and abroad.

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## NEWSROUNDUP

**RDIO SHUTTERS:** Pandora will spend \$75 million to acquire "key assets" from streaming company Rdio, which is seeking bankruptcy protection and will close. Pandora will acquire technology and intellectual property and said in an announcement that many Rdio staff will be offered jobs. Rdio plans to end service in all markets, and a bankruptcy court will supervise an auction for its assets. It was founded by Janus Friis, co-creator of Skype, in 2010. Rdio CEO Anthony Bay, a former exec for Amazon, Microsoft and Apple, had joined the firm in late 2013 with big expectations. Pandora has been on an acquisition spree lately; it recently bought events and ticketing company Ticketfly.

**RDIO II:** The end of Rdio will affect Cumulus Media, which purchased an equity stake in 2013 to deliver live radio feeds from its 400-plus stations via the platform. Cumulus will no longer be airing radio ads for Rdio; stations streaming through the Rdio Live streaming service will remain available until Rdio closes, according to a Cumulus statement.

**MORE CLOSURES:** In other streaming news, Apple said it would shut down the Beats Music streaming service at the end of November, a year and a half after acquiring it; Apple encouraged subscribers to shift libraries and playlists to Apple Music, according to a CBC news story. Separately, Microsoft formally and finally shut down its Zune music download and streaming service, according to International Business Times.

**NEXTRADIO:** TagStation reduced pricing for broadcasters to \$10 per month per analog FM station and eliminated its setup fee. Monthly fees for HD Radio channels remain at \$35 per month but with no setup charges. "These changes address the cost concerns raised by broadcasters in smaller markets and take them off the table," said President Paul Brenner. The Emmis subsidiary also formed teams to assist client stations in creating visual and interactive content.

**RDS:** In front of a group of 60 industry experts from 14 countries, RDS Forum members presented the new RDS2 system at the first RDS2 Info Day in Berlin on Nov. 3. An enhanced version of the radio data system used by FM radio, RDS2 is backward compatible with RDS receivers. For more see <http://tinyurl.com/RW-RDS2>.

**NAB HIRE:** NAB named a vice president of spectrum policy. FCC Deputy Chief Technologist Alison Neplok joins after working with the commission for a decade. She has been in her current job since April, and she is former chief engineer of the Media Bureau and former acting legal advisor to Commissioner Jessica Rosenworcel. She began her career as research systems programmer for Carnegie Mellon University, where she wrote software to monitor the campus network. She also worked as a firmware engineer for Ericsson designing a high-speed IP router.



Alison Neplok

**SILLIMAN:** Electronics Research Inc. President Tom Silliman received the first Jules Cohen Award for Outstanding Broadcast Engineering at the IEEE Broadcast Technology Symposium in Orlando, Fla. (see page 8) Broadcast

Technology Society President Bill Hayes said he is not only one of the industry's leading experts in broadcast antennas, towers and filters for radio and television, but also IEEE Fellow and has been a member of IEEE BTS for more than 44 years.



Tom Silliman

## More Radio, More Voices

Make Radio World part of your day every day. Visit our website for great Web-only Radio World content, including the following recent posts and stories:

**Forry on the New Media Paradigm** — As part of this fall's National Student Electronic Media Convention, Greg Weston of College Broadcasters Inc. talked with keynoter Clinton Forry, vice president of content strategy at Weber Shandwick, about radio's place in today's rapidly-changing media environment. See [radioworld.com/forry](http://radioworld.com/forry).



**Five Questions: Ben Downs** — Downs is vice president and general manager of Bryan Broadcasting, a central Texas-based radio group owner. Our Gear & Technology Editor Brett Moss asked him about his company's partnership with Texas A&M University called "Fusion FM." See [radioworld.com/downs](http://radioworld.com/downs).

**A Waiver Battle Hard Fought** — One in a series of Radio World stories reporting reactions from industry tech and regulatory experts on the FCC's October actions in support of AM stations. Find out why attorney John Garziglia says critics who deemed a 250-mile waiver unworkable were misguided. See [radioworld.com/waiver](http://radioworld.com/waiver).

**Robert Weller at WRC-15** — "Make no mistake, the wonky technical decisions made at the WRC have far-reaching consequences for the future of communications and spectrum usage." See [radioworld.com/weller](http://radioworld.com/weller).



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**NEWS**

**LAYER**

(continued from page 1)

it's because, practically speaking, he is.

**NAB ROLE**

Layer, 57, has worked for the NAB for 20 years, having started as senior engineer. Today his office, mobile phone and email box together form a nexus of discussions and planning among the most influential technologists in the U.S. radio broadcast industry.

Considering how many facets of the industry he has touched, his project work alone qualifies him for Radio World's award.

He is project manager for technology projects at NAB Labs, where he has directed numerous radio engineering undertakings including construction of its radio test bed facility. He's been deeply engaged in NAB FASTROAD technology advocacy program projects such as FM IBOC asymmetric sideband transmission, an HD Radio Electronic Program Guide, IBOC SFN/digital booster development, improving power efficiency of transmission facilities and VHF/UHF antenna systems for integration in mobile devices.

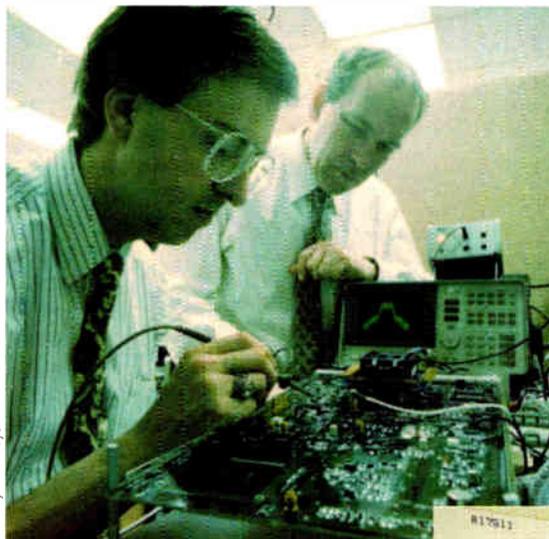
He has hired and managed engineering experts for studies and tests involving such topics as Part 15 FM modulators, LPFM interference and elevated FM IBOC digital power.

Layer also is principal administrator of NAB's Radio Technology Committee, a group of executives who advise the association on tech development and regulation; and he provides technical expertise to NAB's government relations and legal people about broadcast regulatory and legislative matters.

**SELF-EDUCATION**

Growing up in the Washington suburbs, Layer remembers being fascinated by astronomy, math, journalism and photography. He edited his high school newspaper, took photos for the yearbook and served in his school's AV department, videotaping basketball games.

He would visit the laboratory where his father worked as a research physicist for the National Bureau of Standards, now the National Institute of Standards and Technology, in Gaithersburg, Md. "I can remember being fascinated by the signal generators and oscillo-



Courtesy David Layer

**Layer, left, troubleshoots a modem board at COMSAT circa 1994, with supervisor Mark Kappes looking on.**

scopes, and with his help would observe and play with Lissajous figures."

At the University of Maryland he started as a radio/film major but soon switched over to tech. It fit him well; he became president of the university's chapter of the national engineering honor society Tau Beta Pi and ultimately earned a bachelor of science in electrical engineering. Later he would add an MSEE from Purdue University.

In the mid-1980s, Layer parlayed a college co-op assignment at COMSAT Laboratories into an offer to join its technical staff.

He spent a decade there, becoming associate manager in the Transmission and Channel Processing Department. A highlight of his technical and planning activities was designing an application-specific integrated circuit, a modem for satellite transmission of digital video, in 1993. He keeps a large plot of this chip on his wall.

But COMSAT, which had been created by Congress in the 1960s and at first enjoyed a monopoly position, was changing in the 1990s, going through a period of deregulation. It was a good time to move on, especially for a young man who sought to do more than spend each day in a lab. "I wanted to embrace the larger world."

So when he spotted a want ad in the Washington Post for an association job involving both technology and journalism, he responded.

**LIFE AT NAB**

In one sentence, here's a description of what David Layer does these days: "I go to a lot of meetings."

He laughs when he says this, but it's true, and it's also OK. "I love working with people, and we accomplish a

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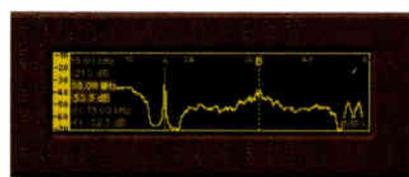


Photo by Bob Kovacs

**Layer stands in front of a design drawing for a high-speed data modem that he developed at COMSAT. In his hand is the actual modem integrated circuit.**



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lot of important things.”

A better description, he says, would be, “I support NAB’s activities in the technical arena.” That means giving presentations, educating people, conducting research, writing, posting social media. He is active in NAB’s technical conference planning activities.

He professes to never being bored: “It’s one of the exciting things about working at a trade association.”

He loves that many of his colleagues — folks like John Marino, Janet Elliott and Kelly Williams — have been in the department for such a long time. He reports to Lynn Claudy, senior vice president of technology, but “we all work together.” More recent additions to the department include Skip Pizzi, Katy Armstrong, Tariq Islam, So Vang and the head of the department, Executive Vice President and Chief Technology Officer Sam Matheny.

Many radio industry people know Layer through his work on the association’s conferences and annual shows. “I’m really a lucky man to have landed this job that allows me to pursue all these things I enjoy: engineering, writing, working with people.”

It’s a good thing that he likes to travel though.

## STANDARDS & MORE

On the standards side, he is the primary staff person for the National Radio Systems Committee as well as several of its subcommittees and working groups.

We’ve written in Radio World often about NRSC and Layer’s involvement; you are likely well familiar with it. But his contributions to its standards are another important reason Radio World has named David Layer for our award.

NRSC is the technical standards setting body co-sponsored by NAB and the Consumer Technology Association (which until recently was called the Consumer Electronics Association).

His fingerprints can be found on NRSC-5-B “IBOC Digital Radio Broadcasting Standard,” NRSCG202 “FM IBOC Total Digital Sideband Power for Various Configurations” and NRSCG201-A “NRSC-5 Mask Compliance: Measurement Methods and Practice.”

He is present for virtually all NRSC events and conference calls, a boon to NRSC leaders past and present like Milford Smith, Charlie Morgan and the many engineers who head its committees. “The volunteers are the heart and blood of the NRSC,” Layer said modestly, “I just kind of corral them. It’s been an honor working with those folks.” But anyone who knows how the committee operates will tell you his work goes beyond corralling.

NRSC’s effort toward a digital radio



In familiar public address mode, Layer addresses a session at the Kansas Association of Broadcasters Convention in fall of 2015.

standard in the United States was critical, probably its most influential project to date. More typical is the development of guidelines and best practices to help engineers get the most out of their station air chains. “It’s more mundane perhaps, but I’ve put my all into that.”

He was program manager for NRSC’s high-speed FM data subcarrier 67 kHz compatibility tests; and he is the NRSC’s liaison to the RDS Forum, a non-profit industry association based in Geneva that advocates for the FM RDS technology and keeps it current.

But wait, there’s more.

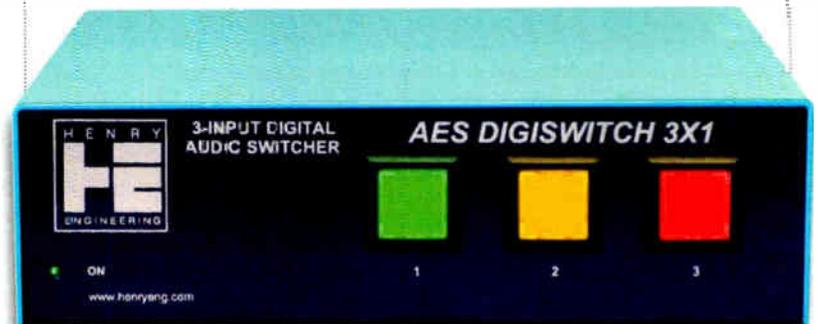
Layer has served as NAB’s representative to the North American Broadcasters Association Technical

Committee and is currently the association’s representative to NABA’s Radio Committee and chair of the latter’s FM chip working group. He was on the steering board of hybrid radio project RadioDNS; and his résumé includes technical work for NAB in the areas of next-gen television and satellite.

Like the good former high school newspaper editor that he is, he has been an author and contributor for NAB’s Radio and TV TechCheck newsletters and the McGraw-Hill Yearbook of Science and Technology. He contributed to the ninth edition of the respected NAB Engineering Handbook, was associate editor of the 10th and is reprising

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## LAYER

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that role with the planned 11th edition. In 2001 he authored a notable cover story for IEEE Spectrum Magazine, "Digital Radio Takes to the Road," prior to the adoption of digital radio in the United States and NRSC's evaluation of the iBiquity FM HD Radio system.

The engineering community also knows him as a senior member of the IEEE and a leader of its Broadcast Technology Society, where he serves on the Administrative Committee, is a Distinguished Lecturer and has been the chair or co-chair of six annual IEEE Broadcast Symposia.

Need still more? He is an associate member and on the board of the Association of Federal Communications



Courtesy David Layer

**All-digital AM field testing in 2013, late at night at Greater Media's WBT. From left: Layer, Milford Smith and Jerry Dowd of Greater Media, Tim Hardy of Nautel, Dennis Wallace of Meintel, Sgrignoli & Wallace, Russ Mundschenk of iBiquity (now DTS), Gary Liebisch of Nautel and Dan Ryson of Cavell, Mertz & Associates.**



Photo by Bob Kovacs

**Layer shares a laugh with Kelly Williams, NAB senior director for engineering and technology policy. A photo on the wall shows Layer scuba diving, a favorite pastime.**

Consulting Engineers and past chair of its Scholarship Committee; and he's a member of the Society of Broadcast Engineers.

Others have recognized his work; just in the past year or so, he has received the Consumer Electronics Association's Technology Leadership Award as well as the Matti S. Siukola Memorial Award for the Best Paper of the IEEE Broadcast Symposium.

And like every other responsible engineer, David Layer worries about where the next generation will come from.

"It's not just gonna happen on its own. We can't just expect the next generation to come walking through the door. We have to actively pursue it." He applauds efforts by AFCCE, IEEE and the NAB Education Foundation's Technology Apprenticeship Program, he said, but wishes the industry had more partners in the educational system.

So, like many of our past award recipients, Layer promotes technical education. You may have seen him speak at the Public Radio Engineering Conference in Las Vegas or at AES conventions. He has addressed broadcast association conferences in at least 14 states and Puerto Rico, speaking about digital radio, IPAWS, EAS and FCC technical rules. He has taught at American University, Frederick Community College and the U.S. Telecommunications Training Institute.

### TIME MANAGEMENT

I ask wonderingly how he manages his time. Layer confesses that things can get stressful, but he points out that many of these activities are his own choice. And he's inspired by people like Milford Smith, a fellow RW Excellence in Engineering Award recipient who has his hands full at Greater Media

yet finds time for NRSC, the NAB Broadcast Engineering Conference and other efforts.

Layer is supported in his pursuits by his wife Nora Bosse, who shares his love of travel. "She enjoys seeing me pursue engineering and broadcast with a passion." Each has several grown children from previous marriages. The couple lives on a three-acre lot in a pastoral outlier of Washington/Baltimore.

When he needs to think about something other than technology, he'll ride a bike, explore some home remodeling or — whenever possible — strap on the aqualung. Layer is a certified scuba dive master, an enthusiastic member of an informal broadcast industry club that also includes Smitty, Rick Ducey and Andy Laird among others.

At 57 he hopes to be gainfully employed at NAB for at least another decade.

"It's a great place to work. Sam [Matheny] is taking us in a lot of new directions in what NAB Tech is doing." And Layer is not the type to sit in a rocking chair on a front porch. "People who stay involved and active have better qualities of life."

### ABOUT RADIO

Beyond education and mentoring, how can today's radio technologists advance our industry?

Layer mentions practical steps like making sure your facility is operating at peak performance and checking your digital time alignment. But he'd also like to see all broadcasters be more aware of creating a consistent user experience for radio, helping to roll out — "on every platform, on every station" — the kind of metadata and album art services that listeners have come to expect on other platforms.

"It's not just up to the technologists obviously ... but this is something we're trying to get everyone to focus on. Consistent user experience is vital."

Courtesy David Layer



**Nora Bosse and her husband David Layer are shown on a visit to the Brooklyn Bridge.**

And that's challenging for an industry of 15,000 or so individual broadcast stations licensed to thousands of owners who are not often on the same page about anything.

Among his proudest accomplishments is the all-digital AM field testing work he helped lead recently. It involved visits to nine AM stations, measuring the coverage of digital radio signals, gathering results and presenting them to the industry.

So what are his thoughts about the future of our medium? He's excited about advances in digital radio, particularly the growing penetration of HD Radio receivers in automobiles. When he was in London at the recent WorldDAB assembly, he learned that three-quarters of new cars sold in the United Kingdom have DAB receivers.

"We're approaching those numbers in the U.S.," he said. "Digital radio on the FM side in particular is going well, and I think that will continue to be a good news story. Listeners are paying attention to multicast channels. ... The stuff that NextRadio has accomplished is another great story."

He expects the growth of radio in smartphones to accelerate, and is watching with interest to see how streaming audio for broadcast plays out.

He emphasized that he was speaking only for himself, but he said the goal for broadcasters should be to seek a viable presence on every platform.

David Layer is doing his part toward that. Still, he reminded me that he came from a background in digital and satellite communications, not radio or TV at all.

"These broadcast engineering executives and chief engineers and technicians are all so excited and passionate about broadcasting. I have to believe that not every industry is like this. ... They've really accepted me and helped me along. There's a lot I've needed help with: I've never wanted for help.

"I really feel blessed that I've become part of the community."

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

**Colleagues salute David Layer, page 30**

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# IEEE BTS Explores Problems/Fixes

RF technology, audio, cybersecurity topped agenda at three-day broadcast group event

BY JAMES E. O'NEAL

IBOC issues, audio advances, cybersecurity, grounding and bonding, broadcast antenna evolution and space exploration were highlights of the annual IEEE Broadcast Technology Society Fall Symposium. It was the 63rd such gathering of radio and TV engineering personnel in as many years. The October event was held at the Caribe Royale hotel in Orlando, Fla. and attracted some 120 participants from across the United States and beyond.

More than 30 technical presentations were offered at this year's conference.

## FIRST ITEM OF BUSINESS

FM IBOC was at the top of the list at the conference, with a kick-off session on Wednesday featuring presentations by Nautel's Philipp Schmid and Dielectric's John Schadler.

Schmid touted the potential advantages of interleaving HD Radio signals, including operating economy and many more program selections for the listener. Schadler offered suggestions and techniques for accommodating RF power increases at combined IBOC FM transmission sites.

The NAB's David Layer continued the radio theme with an in-depth look at operations of NAB Labs, which began operations about three years ago. GeoBroadcast Solutions' Hal Kneller followed with a presentation on the implementation of a single-frequency network at Florida's WSUN.

The often-neglected topic of connecting a broadcast facility to the earth was explored by ERI's President/CEO Tom Silliman in his presentation "Grounding Concepts and Techniques for Broadcast." He described effective grounding methodologies as well as the measurement of the effectiveness of grounding systems.

Other symposium presentations included a session on AES67 with industry experts Greg Shay of the Telos Alliance, Phil Owens of Wheatstone, Keyur Parikh of GatesAir and Al Salci

of SAS. They presented information individually about the audio-over-IP interoperability standard and later joined in a panel discussion on the topic.

## CYBER [IN]SECURITY

As broadcasters become more and more dependent on the Internet, protection of data and content has become more and more of an issue.

The 2015 symposium addressed this

the broadcast engineering community.

With this year's event being held in Orlando, a special treat was available to 25 lucky registrants in the form of a pre-conference trip to the Kennedy Space Center, located about an hour's drive from the city. The guests were given a behind-the-scenes tour of NASA facilities and were later hosted at a dinner party at a nearby events center.

A space "theme" continued on Thursday with a luncheon keynote address by long-time NASA project manager and space evangelist Jon Cowart, who had served as a tour guide

at the Kennedy Center. In his presentation, Cowart said many space exploration projects have benefitted society on one way or another.

He described the reception of radio signals from two NASA deep space probes that are now more than 10 "light hours" away from earth.

"You folks will appreciate this," said Cowart. "They [the probes] are a long way away. If you took the total amount of radio energy we get from the Voyager probes in a year and bundle it up into one nice neat little package of energy, it's one one-thousandth of the energy from a snowflake hitting the ground. And yet we can still communicate."

## FROM MARCONI TO DIGITAL BROADCASTING

Another luncheon speaker, long-time consulting engineer Ron Rackley of duTreil, Lundin & Rackley, drew applause with his narrative of the broadcast antenna's evolution, tracing it from Marconi's first attempt to get a lot of wire high up in the air and on to the antennas use in 21st century communications. As part of his presentation, Rackley offered a "litmus test" for radio engineers.

"You know you might be a radio engineer if as a child you enjoyed listening to the kilocycles and kilowatts information at station signoff right before the national anthem was played, or if you would beg your mother to drive you by a transmitter site so you could look at the towers in the field," said Rackley.

The 2016 BTS Symposium moves to Hartford, Conn., with the Hartford Marriott Hotel hosting the Oct. 12-14 event. Event information will be posted at <http://bts.ieee.org/broadcastsymposium>.



A group of conference registrants enjoyed a behind-the-scenes tour of the Kennedy Space Center. Here the group poses beneath the engine nozzles of the enormous Saturn 5 rocket on display.

with two presentations on cybersecurity. Information technology specialist George Waters offered his views on safeguarding data in "Cybersecurity Risk Management and Best Practices," and during the conference's Wednesday lunch break, keynote speaker Frank Artes provided a rather alarming wakeup call by extracting data from smartphones and laptop computers in use by symposium attendees during his presentation.

Artes displayed the MAC addresses and other information gleaned from the wireless devices via a large-screen projector, describing just how easy it was a hacker to steal data in this fashion.

"Your blind faith in security products will not end well," said Artes. "Turn off radios you are not using, remove SSIDs you no longer use and pay attention to the SSID your device is connected to."

## ROAD TRIP TO THE CAPE

Through 2012, the BTS Symposium had been held in Washington. A decision was made to move it around the country to make it more accessible to

## NEWSROUNDUP

**CEA=CTA:** The Consumer Electronics Association changed its name to the Consumer Technology Association. President/CEO Gary Shapiro wrote, "The word 'electronics' is limiting and does not capture all the innovation swirling around wireless, the Internet, automobiles, health and the new economy. The word 'technology' better defines what we have become and who we represent." Unchanged is the name of its trade show International CES.

**CCW=NABNY:** The National Association of Broadcasters changed the name of its New York City-based Content & Communications World show. The event will be known as NAB Show New York; its new tagline is "The Essence of NAB. The Power of NYC."

**DRONES:** The Federal Aviation Administration warned drone owners away from companies offering registration services. The FAA said in mid-November that it expected to announce a registration protocol shortly. "Owners should wait until additional details about the forthcoming drone registration system are announced later this month before paying anyone to do the work for them," the agency said.

**KID-FRIENDLY:** iHeartMedia released a free streaming app aimed at kids called iHeartRadio Family, created in partnership with the company Build-A-Bear. The app will carry iHeartMedia radio stations along with custom content channels such as Build-A-Bear Radio and kids-oriented music. It has a child-oriented interface.

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# iHeartMedia Makes a Preemptive Strike

Here's what it has been telling the FCC about AM Class As — and why you should care

BY GUY WIRE

*The author is a veteran broadcast engineer whose identity is cloaked and whose opinions appear periodically in RW and RW Engineering Extra.*

Radio's version of class warfare politics is coming into full view through iHeartMedia's discussions at the FCC in recent months regarding contour protection limits for AM "anchor stations."

The company owns many of the full-time 50 kW U.S. blowtorches that still enjoy significant ratings and revenue; it has 18 Class A stations; all but one are in the lower 48, the other is in Alaska. Meanwhile, many smaller AMs continue to struggle and have been crying for FCC help to "save" occupants of the band.

IHM doesn't want the FCC to change nighttime skywave protections for big Class As. So, as reported by *radioworld.com* in October, Sara Morris, senior director of government affairs for iHeartCommunications, met recently with Maria Kirby, legal advisor to FCC Chairman Tom Wheeler to discuss iHeart's concerns in the revitalization proceeding. A follow-up letter from iHeart attorney Marissa Repp reiterated the company's thinking in writing and posed 17 questions to the commission (see below). Most of these addressed potential interference to Class A skywave and secondary groundwave coverage areas. This came not long before publication of the revitalization order and was one of several conversations

between iHeart and the commission this year.

The subsequent FCC order only raises the stakes, focusing more attention on the unresolved question of what to do about Class As.

## A LONELY VOICE?

In support of its arguments, iHeart cited research indicating that "more than a half-million existing, actual listeners of Class A stations, accounting for 13 million listening hours per month ... would lose their existing service."

In his editor's column in July, *Radio World's* Paul McLane quoted iHeart's Jeff Littlejohn talking about this analysis, which iHeart based on extrapolations from PPM data. But we need to know more than we've heard publicly about this. It will help us understand the facts in the controversy if we knew how iHeart came up with these numbers, which now are being cited by others who support ongoing protections.

The claim is important, given that most engineers and industry observers believe that few listeners still use or rely on skywave reception of big AM boomers anymore. Despite outcries from nostalgic distance listeners, the assumption of late has been that satellite and now Internet radio have largely replaced AM listening to these stations, especially in sparsely populated areas. The long-haul truckers who dial up programs like "Coast to Coast AM" and "Red Eye Radio" at night now do so using alternate delivery platforms.

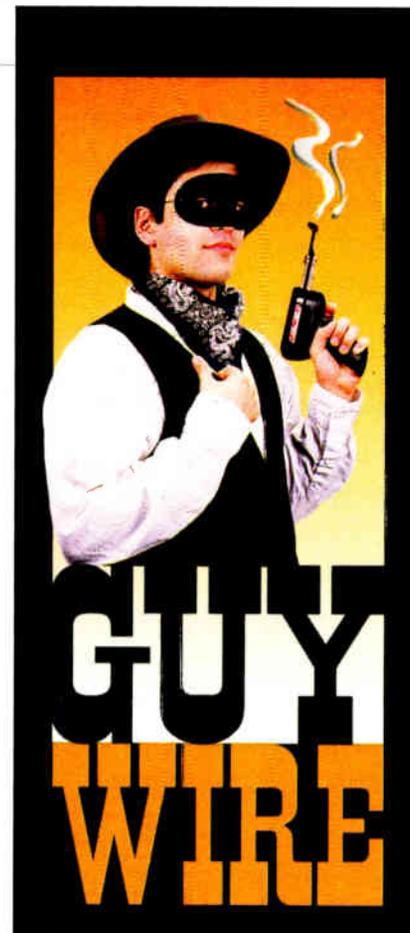
Thus, some argue, the commission can afford to scale back protections to open up room for smaller and more localized broadcast signals. Further, the availability of many media voices renders big protected coverage areas unnecessary.

But how true and far-reaching are these underlying assumptions? Common wisdom already tends to misjudge and underestimate the depth and penetration of overall radio listening, especially from experts who predicted that the Internet and the connected car would make over-the-air radio irrelevant by now. So I'd like to see Edison Research or some other third party do a comprehensive study to provide real data about fringe area and skywave AM listening.

Listeners who still use distant groundwave and skywave reception do encounter higher ambient noise levels that make weaker AM signals more unreliable. But rural and remote areas are much less affected by many of the obnoxious noise generators found in urbanized areas.

Most Class A stations still enjoy huge coverage areas within their 0.1 mV/m day and night contours. There are exceptions, of course, depending on regional ground conductivity; the protected groundwave contour of WSB in Atlanta, for example, goes only a fraction of the distance covered by WHO or WLS because of ground conductivity.

When the FCC passed its recent order, it also opened a further notice of proposed rulemaking, as Paul McLane described in a column in November. As that FNPRM proceeds, iHeart presumably will continue to resist proposals to diminish Class A protections — during



day, night or even critical hours.

But interestingly, companies like CBS, Cumulus, Cox, Bonneville, Hubbard and other Class A stakeholders seem quiet. They have not yet stepped forward to voice these concerns, at least not publicly or formally to the FCC as iHeart has done. (Their lack of contribution is evidenced by this text in the FCC order: "The advocates of reduced protection to Class A stations have differing views on exactly how to change the protection rules. *Opposition to these commenter proposals comes chiefly from IHM*, which states that Class A stations are among the only AM

*(continued on page 12)*

## CLASS A QUESTIONS

*Here are the questions posed by iHeartMedia to the FCC in a letter summarizing its concerns about possible changes to Class A protections of AM signals. It was sent and made public shortly before the commission published its AM revitalization order, in which the commission seeks further comments and discussion about such protections.*

- To what extent do listeners go to the AM band to receive content from Class A AM stations? Would a reduction in Class A nighttime interference protections result in existing listeners of the AM band leaving the service due to increased interference, thereby further weakening the AM band and the ability of all AM stations to attract listeners? To what extent to Class A AM listeners also listen to non-Class A AM stations once they are tuned in to the AM dial? Will diminution of AM "anchor stations" have an overall chilling effect on the AM band?
- To what extent does increased interference for Class A AM stations impact EAS Primary Entry Point stations for Department of Homeland Security/FEMA alerts during emergencies?
- What would be the effect on non-Class A AM stations that do not increase power on their ability to reach existing listeners, including their ability to provide local programming, public service information and EAS notifications? Are listeners in rural, remote and/or tribal areas disproportionately impacted?
- What are the potential number of actual listeners who would lose access to an AM station signal if changes to nighttime interference protections were adopted?
- Would listeners in rural or remote and/or tribal areas lose access to nighttime news, information and sports that they currently receive?
- Would Class A nighttime interference protection changes undermine the ability of these AM stations to continue to broadcast radio programming content serving the public interest, such as news?
- What would be the impact of nighttime interference protection reductions on Class A AM stations that qualify as small businesses?
- Would the rationale for modifying skywave protections remain valid if the commission provides new opportunities for AM stations to increase listenership through increased access to FM translators?
- Would power increases in nighttime coverage for Class B and D AM stations increase noise in the band overall? To what extent would such an increase in overall noise/interference negate any benefit from such power increases? To what extent would Class B and D AM stations that do not increase power be impacted by increased interference from those stations that do increase power on the same channel? Would any of these impacted stations be Small Business Entities? Would this increased interference impact the ability of stations to perform EAS functions?

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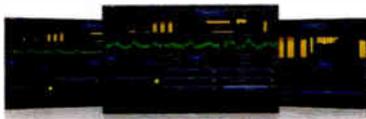


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## GUY WIRE

(continued from page 10)

stations that garner substantial listenership.” (The italics are ours.)

Have other media companies given up on any value for skywave and, more importantly, secondary groundwave coverage for their Class As? Will they be more vocal in the next round of comments?

### ANCHOR TENANTS

iHeart describes Class A stations as “anchor tenants” in the AM Band Shopping Center. By far, these stations attract the highest numbers of all shoppers and listeners. To diminish them, iHeart argues, could hasten the demise of the entire AM radio enterprise.

This is classic class warfare. But the more salient question is whether local service trumps fringe or distant service in all cases. The FCC has pretty much given us its position on that in Paragraph 55 of its further NPRM: “Our goal of localism suggests that ser-

*vice from a local news and information source should be preferred over better reception of a more distant signal.”*

Almost everything in the FCC’s recent actions seems designed to help the “little guys” on the AM dial and does little to help legacy high-power stations. The feeling has seemed to be that those stations already enjoy too many advantages and protections and that it’s the little guys who are getting screwed.

iHeart’s pre-emptive strikes appear to have persuaded the commission to propose retaining present Class A groundwave contour protections. Section IV, Paragraph 56 proposes to retain the present 0.1 mV/m contour protections both day and night, but to eliminate critical hours protection altogether. And the current 50 percent 0.5 mV/m skywave contour protection afforded Class As is absent in this proposal.

The elimination of the skywave contour rule effectively would mark the end of an era that has protected AM radio clear channel services as we’ve known them for almost 90 years.

The commission apparently has rejected iHeart’s plea to consider keeping at least some measure of skywave service protection in the NPRM and has followed through on its promise to let more local service opportunities trump distant services.

Critical hours rules — like the critical array designation — have always been somewhat of a nuisance and are probably an easy bone for Class As to lose in this proceeding.

In my reading, the FCC appears to be proposing a grand compromise in its further NPRM, eliminating skywave protection but retaining the present 0.1 mV/m groundwave contour protections both day and night for the Class As. If enacted, this will allow quite a few stations on co- and first-adjacent channels to Class As to improve their own local coverage by letting out nighttime patterns in their Class A protected nulls.

So there is an important discussion at hand. In my opinion, iHeart was justified in asking its 17 questions about Class A coverage protections. Before the NPRM

turns into an order, many of those questions need quantifiable answers based on statistically valid studies, rather than anecdotal reply comments. Meanwhile, even though iHeart is not likely to get everything it was hoping for, it has at least for now convinced the commission that some Big Guys still have a Big Stake in the AM improvement proposals. The next battleground in this debate will be whether the 0.1 mV/m groundwave contour protection being proposed is too generous for the Class As and should be pushed up to the 0.5 mV/m contour.

You can read the order and further NPRM at <http://tinyurl.com/rw-AM-order>. As debate unfolds over these comprehensive proposals, it remains to be seen whether comments or substantive new information about AM Class A service to listeners in skywave and secondary coverage contours will justify adopting the proposed contour protections in a final report and order.

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

## DTS

(continued from page 1)

We achieve this through a combination of cutting-edge R&D along with strategic partnerships and acquisitions. Over the years we catalyzed a revolution in the motion picture entertainment experience, developed widely acclaimed solutions for the mobile market, and have helped redefine the entertainment experience in the home, in cars and on the go via mobile and portable entertainment devices.

With a rich history of innovation, we are proud to have developed game-changing audio technologies like DTS Headphone:X, which delivers fully immersive sound through any headphones, and DTS:X, a next-generation object-based audio technology for cinema and home theaters, that will play an important part in how entertainment is delivered and consumed over the next decade.

This is important because the platform technologies we have developed serve as a key bridge to how we think about innovating within the radio space — where offering a more compelling, useful, interactive and value-added solution for broadcasters and consumers alike sets the stage for wider adoption of HD Radio and various DTS technologies. Also important is ensuring our efforts are geared to help preserve the business and future of the well-established and ubiquitous radio medium.

### GROWTH OPPORTUNITY

Fundamentally, we believe that iBiquity Digital and HD Radio technology provide a strong growth opportunity for DTS.

The companies have very similar business models, serve many of the same customers in the automotive and consumer electronics space, and collectively are well-positioned to operate an independent and neutral



Jon Kirchner

platform for the radio industry.

The fact that we are so similar gives us high confidence that we will be able to facilitate a smooth and fast integration, paving the way for us to focus our energies on addressing the challenges in the market and better serving our radio broadcaster, automotive and end-consumer customers.

This transaction is expected to increase overall awareness of DTS and perceived listener value. It also gives DTS a bigger footprint in the automotive space. Over time we believe that

to broadcast radio weekly, for more than 13 hours on average. This represents a huge share of relative entertainment consumption. Further studies show a high percentage of listening occurs in the car, which is one of the best places to truly immerse oneself in music and directly engage consumers on the go.

With the size and scale of these numbers, any technology and solutions that provide a better, more content-rich and compelling experience to such a wide audience provide clear opportunity now and in the future.

Importantly, all 36 automotive brands available in the U.S. now offer HD Radio technology in their vehicles across more than 200 different models. In 2014, HD Radio receivers were integrated into approximately 35 percent of all cars sold in the U.S. To date, just over 10 percent of the cars on the road in North America have HD Radio receivers, numbering approximately 25 million vehicles. That figure is increasing every day.

As we move into an ever-more network-connected world, the range of technologies that reach connected devices continues to evolve. Cars are increasingly being connected and thus, it’s strategically important for DTS to broaden our reach in both the radio broadcast and auto markets where we can play a bigger role in the coming age of deeper mobile and auto infotainment integration. Advances in sound technologies and data-driven services are increasingly converging in today’s “digital dash,” and new services and businesses will develop as a result of never before-seen levels of connectivity.

DTS is firmly committed to being at the heart of these next-generation opportunities, and to supporting and building an ever-broader future for the HD Radio technology platform. We look forward to working closely with our industry partners to roll out HD Radio solutions, educate consumers and invest in future enhancements to meet the needs of broadcasters, automotive and mobile manufacturers and consumers, making your radio experience better and more compelling in every way.



cars will become an ever more important intersection point for technology as consumers seek to have seamless, integrated multi-device content experiences across various listening environments.

### UPTAKE

One of the key considerations in this acquisition was the strong support of HD Radio technology by both U.S. broadcasters and major car manufacturers.

More than 2,300 radio stations have licensed HD Radio technology and have demonstrated a commitment to growing the market for digital radio services over the last 10 years. In fact, HD Radio technology has enabled the launch of more than 1,700 new HD2/HD3 radio stations.

Local radio is a fixture in daily American life — consumers love and depend on local radio. According to Nielsen, more than 90 percent of Americans listen

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EVENT systems are fully bi-directional including a Software Defined Indoor Unit (SDIDU) and Outdoor Unit (ODU), eliminating the need for costly waveguide hardware. The ODU is available in the license free 5.8 GHz band, or licensed 11, 18, or 23 GHz bands. Appropriate external antennas are selected based on path length.



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# Use a Light Pole to Mount Antennas

And check out a neat tool that works in conjunction with your multimeter

## WORKBENCH

by John Bisset

Read more Workbench articles online at [radioworld.com](http://radioworld.com)

**W**hat to do when you need a mount for your antennas, have a limited budget and don't need hundreds of feet in height?

Well, if you are Nebraska contract engineer Tom Russell, you consider a parking lot light pole.

When KFMT(FM) moved into a new office/studio complex recently, Tom noticed the landlord was removing and realigning some of the parking lot light



**Fig. 2: STL, two-way, FM monitor and EAS antennas are mounted to the pole.**

are troubleshooting in tight spaces.

Thanks, Allen, for letting readers know about the great deals.

**I** had the privilege to speak to about 20 broadcast engineers at last month's Alaska Broadcasters Convention. (Yes, there are that many engineers in Alaska!)

Justin Ovsak is the assistant engineer to Paul Jewusiak at the Anchorage Media Group/Alpha Media stations in Anchorage. Justin handles a lot of paperwork, and while organizing files at the station, he came upon a useful idea that seems very simple yet may have eluded you, too, until now.

Justin only had a stack of right-cut file folders, seen in Fig. 3, but he didn't want the folders all aligned to the right; alternating left-to-right would make searching through files easier. Justin realized that if he flipped half of the folders inside

components, either mounted or loose, and will illuminate when a component is in contact. LED Test Tweezers are able to test fuses, switches and shorts in a circuit; they can also be used as the probes for a multimeter using the special connector cable that is included.

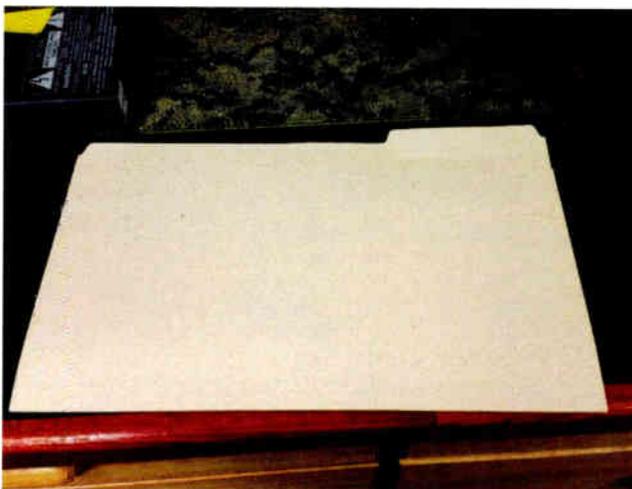
The kit sells for \$70, and you can find out more at [www.smarttweezers.ca](http://www.smarttweezers.ca).

**N**ow that TFT has shuttered its doors, how will TFT users get service support? And how will TFT EAS users make sure their gear is in compliance with evolving alerting rules?

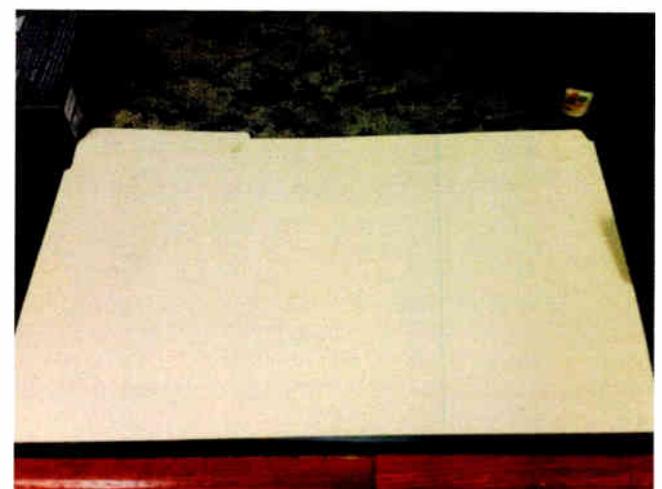
Longtime company employee Darryl Parker is trying to help, even though he is no longer affiliated with the business.

"We have contact with former TFT engineers and technicians who are interested in providing support for TFT product lines," Darryl told Radio World. "Employees who were laid off are seeking other full-time employment but can offer some time on weekends and off-hours to repair TFT products."

The problem isn't just EAS equip-



**Fig. 3: When organizing file folders, take a right-cut folder.**



**Fig. 4: ... and flip it inside out to get a left-tab folder.**

**Fig. 1: A parking lot light pole is mounted behind the station.**

poles. One was on the ground and about to be scrapped. Needing about 60 feet of height, Tom cut a deal with the landlord and had the pole mounted behind the station, as seen in Fig. 1. Fig. 2 shows the mounting of the station's STL, EAS and two-way antennas.

An additional feature of the light pole is that it is hollow, so the antenna coax runs down the inside of the pole, protected from the elements.

**B**roadcast engineer Allen "Alleo" Branch services stations in Georgia and Florida. After reading our tip about the \$300 Milwaukee Portable Inspection Camera (Oct. 21 issue), Allen states that Harbor Freight has a similar handheld inspection camera for only \$89.99. It's the Cen-Tech Inspection Camera, item 61839, and provides a 2.4-inch screen and flex camera umbilical cable.

For \$179.99, there is Cen-Tech's High Resolution Digital Inspection Camera With Recorder (search [www.harborfreight.com](http://www.harborfreight.com) for item 61838), which features a 3.5-inch LCD screen with a recording and USB cable to export the video.

The holidays are right around the corner. Clip this tip to your wish list! Having a camera on a flexible umbilical can be enormously effective when you

out, he would have an equal number of left- and right-tab folders, making for a much neater filing system. Easy? Yes. Helpful? Yes!

Justin is an Alaska native who graduated from the Art Institute in Seattle as an audio engineer. After spending some time at the Anchorage Museum as an AV/interactive designer, Justin joined Anchorage Media.

**A**nother neighbor to the north, Canada-based Siborg Systems, is selling a neat tool that works in conjunction with your multimeter.

The LED Test Tweezers is a set of sharp, pointed tweezers designed for testing LEDs and useful for testing and troubleshooting microelectronics.

The sharp gold-plated phosphor bronze tweezers are able to grasp small

ment, but modulation monitors and STL equipment, too.

You can contact Darryl via [darrylparker@comcast.net](mailto:darrylparker@comcast.net) or at (408) 219-5579.

We'll keep you posted, but in the meantime, check out the service box ads in the back of this issue of Radio World for third-party support companies who may be willing to assist.

*Contribute to Workbench. You'll help your fellow engineers and qualify for SBE recertification credit. Send Workbench tips to [johnpbisset@gmail.com](mailto: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 is a past recipient of the SBE's Educator of the Year Award.*



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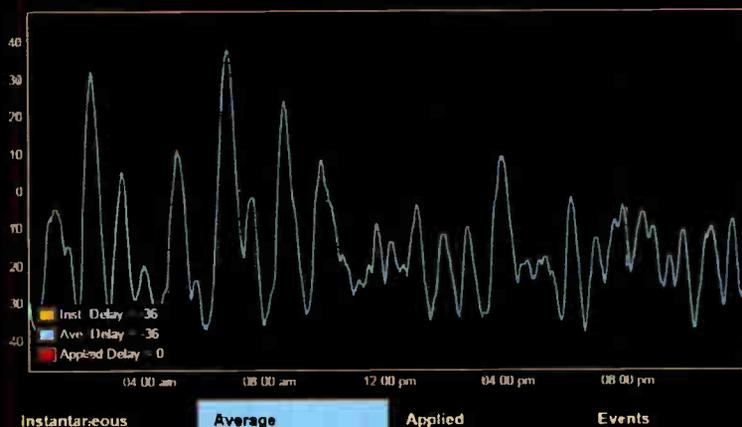


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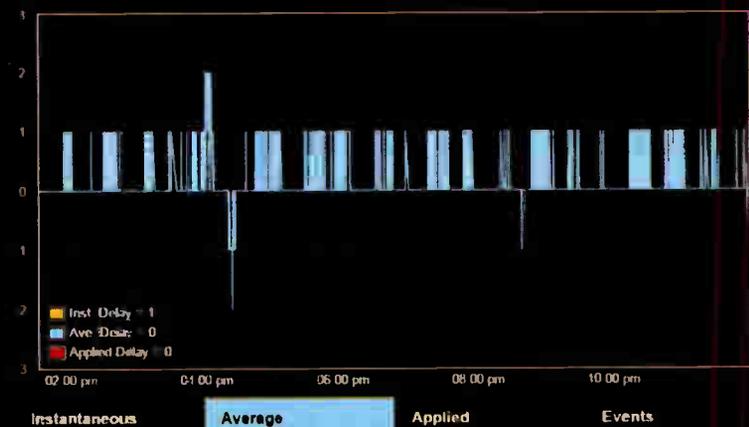
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Detail View



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Detail View



Corrected FM/HD1 audio within  $\pm 2$  samples over 24 hour period.

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- Paul Shulins, Greater Media Boston.



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# What does VoxPro do? Basically, this kind of stuff...



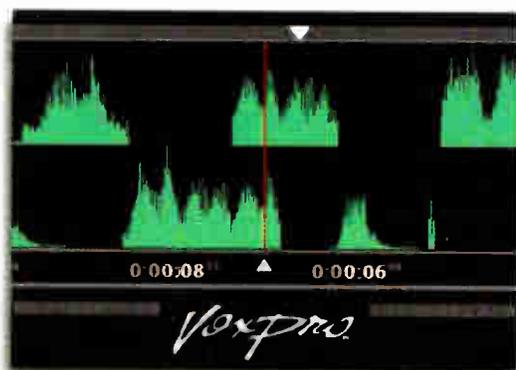
You're doing your morning show when there's a caller on the line.



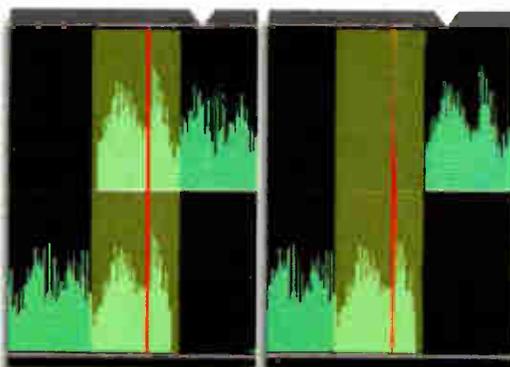
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OK, this content is a little funny since paid for by Wheatstone, but I hope you'll find it informative, entertaining and amusing!



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For the entire story... [INN29.wheatstone.com](http://INN29.wheatstone.com)

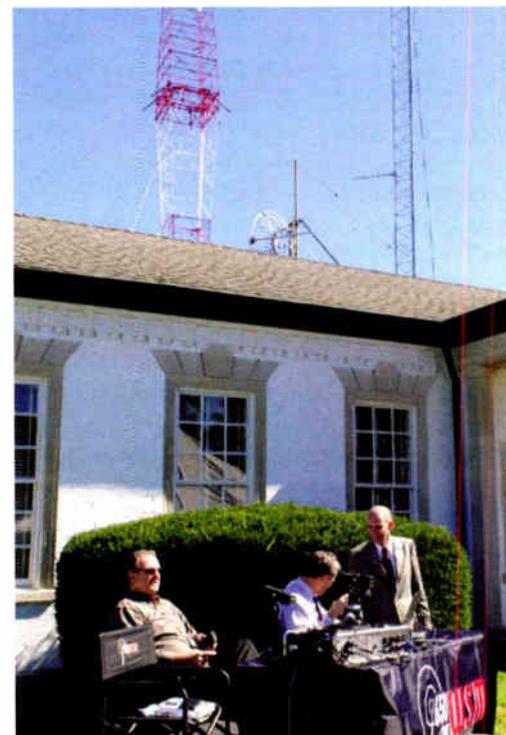
### Standing Beneath the Big Tower

#### 90 Years of WSM

*By Scott Johnson*  
 From three miles north on I-65, I see it, rising from the trees like a steeple. And for radio engineers and country music fans alike, it does mark a place of great reverence. It is the 808-foot tower of radio station WSM-AM, and this day marks an important date in that station's storied history. 90 years ago on this date, WSM first signed on.

As I drive up and am directed to parking in a corner of the vast field, along with a hundred or more other guests, both the scale of the place and the weight of the experience sink in. I'm here for WSM's 90th anniversary celebration, an open-house at one of the nation's most famous transmitter sites.

For the entire story... [INN29.wheatstone.com](http://INN29.wheatstone.com)



### Kim Komando's New Studios @ Corner of IT and Radio

#### Oh, the irony.

Kim Komando's talk show about gadgets and computer technology was turned down by two broadcast networks in 1994 because they said computers and the Internet were a passing fad.

Of course we now know that IP is here to stay. And the irony? The Kim Komando Show, produced by WestStar, is now viewed on her television network streamed over the Internet, and it's being distributed to 450 radio stations from a new studio facility that is — you guessed it — IP based.

For the entire story... [INN29.wheatstone.com](http://INN29.wheatstone.com)



### Processing Tip From the Field

#### Mike Erickson reports in with this audio processing tip:

Clip restoration processors can make great additions to the production studio but we don't recommend them for the air chain, where they can play tricks on otherwise great sounding audio.

These algorithms seem to work on overly clipped audio but can be unpredictable on audio that doesn't need to be restored.

For the entire story... [INN29.wheatstone.com](http://INN29.wheatstone.com)



# Student Radio Practitioners Travel to Twin Cities

CBI's annual confab featured learning sessions, tours and swag

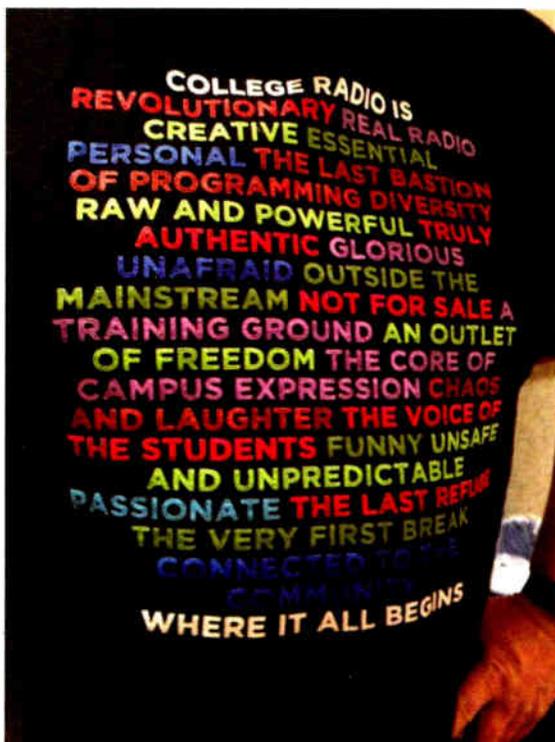
## COLLEGERADIO

BY JENNIFER WAITS

Before the autumn chill set in, College Broadcasters Inc. convened its membership in Minneapolis for its fourth annual National Student Electronic Media Convention. This year's event attracted more than 300 attendees, who traveled from 24 states and Washington, D.C., from all over the United States.

Approximately two-thirds of the attendees came from student radio stations, with the rest hailing from other student media outlets including television stations and websites. While it was mostly a college crowd, a handful of high school radio station advisers attended, and one adviser brought a crew of students from high school station WSTB(FM) in Streetsboro, Ohio.

Over the course of three days, there were more than 100 sessions, which ranged from roundtable discussions, to presentations, to panels, to how-to workshops. Topics discussed included social media, FCC regulations, promotional ideas, sports broadcasts, LGBTQ in broadcasting, working with music reps, news, webcasting and podcasting.



Photos by Jennifer Waits

This College Radio Day t-shirt was spotted at College Radio Day's booth at the CBI convention.

Each student tracked down a story to report on in the Minneapolis area, conducted interviews, edited and crafted a final audio piece, along with additional content for an affiliated website. The week's emphasis was on non-narrated storytelling, so each story was told through the voice of the subject, with other audio adding to the mood and narrative.

During a Saturday morning listening session, conference attendees were able to hear the completed pieces. Next Generation Radio Project leader Doug Mitchell asked each participant to share what he or she had learned from the experience.

After hearing the engaging pieces created during the week, participant Jason Fuller noted "radio is a powerful tool for those who have been silenced."

The Next Generation Radio Project pieces can be heard on the CBI website at <http://askcbi.org/next-generation-minneapolis/>.

### MEETING AND GREETING

One of the great things about student media conferences is that it creates an opportunity to meet students from other stations and to pick up tips on how things are done elsewhere.

CBI's annual Swag Swap is a fun social event during which students chat with folks from other stations, collecting stickers, buttons, and pens from other stations. The event was as frenzied as usual, and some



Students gather at CBI's Swag Swap.



Next Generation Radio Project participants and mentors worked on their pieces during the convention.



These promotional items collected at the Swag Swap and from Tour of Radio K are eclectic and memorable.

Ritenour High School's media adviser and educator Jane Bannester, who spoke eloquently about how her students at KRHS Media, including KRHS(FM), covered events and protests in Ferguson, Mo., following the 2014 shooting of Michael Brown by a police officer.

Bannester explained that it was impossible to *not* cover the story, as it was affecting her students and her school. "You can't hide from these stories" and "you can't just stay on your campuses," Bannester said, pointing out that "real learning" happens when one goes out and does reporting beyond the school walls.

### NEXT-GENERATION PROJECT

A special workshop happening in tandem with the CBI event was an application-based weeklong radio and journalism training boot camp for student reporters. NPR's Next Generation Radio Project brought six students to Minneapolis for a week of field reporting under the watchful eyes of professional mentors.

students held tight to coveted items like beanie caps and premium sweatshirts in the hopes of trading them for other limited edition pieces. Some of the more whimsical bits of swag this year included car air fresheners from KXLU(FM) in Los Angeles; guitar picks from WKNC(FM) in Raleigh, N.C.; water pistols from WPTS(FM) in Pittsburgh, Pa.; keychains shaped like pizza slices from WUOG(FM) in Athens, Ga.; and a cute stress ball character with an Elvis haircut from Lander University radio station XLR which broadcasts online from Greenwood, S.C.

Beyond the Swag Swap and targeted roundtable discussions — for radio station managers, radio sports, advisers, program directors and others — those eager to connect with other stations had the opportunity to partake in some station tours in Minneapolis. A limited number of students had the option of touring American Public Media, KUOM(AM) at the University of Minnesota, KMSP(TV) and WCCO(TV).

Many of the sessions provided practical advice from both professionals and students about doing radio, television, and multimedia. Students from SCAD-Atlanta Radio led a hands-on 'zine workshop, and there were special intensive sessions devoted to animation graphics and Adobe Creative Suite.

One of the most compelling presentations was from

## FEATURES

## Saturday Sessions Quick View

ROOM	9:00 a.m.	10:00 a.m.	11:00 a.m.	Afternoon
<b>Greenway B</b>	Roundtable: News Radio and Podcasting	2015 Planning Meeting: All Welcome	Learn to Zest!	Northstar A 2:00 p.m. Keynote Speaker: Clinton Forry
<b>Greenway C</b>	Go Young, Go Strong: Our Year Brans Noticed	News: Not Just a Stepping Stone	Selling the Beat: Non-Commercial Radio	Northstar A 3:00 p.m. 2015 National Student Production Awards
<b>Greenway E/D</b>	Animation Graphics: An In-Depth Look	Animation Graphics: An In-Depth Look	Small but Mighty: Running a Radio Station with a Limited Staff	Complete the NSEM Keynote Presentation Survey!
<b>Greenway FIG</b>	Radio Show and Tell: Special Double Session	Radio Show and Tell	Competition: Wide Learning Session - NEMC Commercial Radio	Post the link name of your program at your studio to promote @CBIPhiladelphia
<b>Greenway H</b>	Radio: Using Tech and Social Media to Engage Audiences	Make Your Radio Production Pop	Emergency Operations: Programming Radio Broadcasters	Use the hashtag #CBIPhiladelphia to post about NSEM
<b>Greenway I</b>	Student Media Assessment Made Easy-ish	Training: Getting and Keeping the Best	Radio Imaging for College Stations	Competition winners announced here! Congratulations to all winners!
<b>Greenway J</b>	Starting Your Underwriting Program	Your First Job—Lessons Learned From the Mistakes of Others	Roundtable: Benefits of Convergence Media Outlets	Monitor this event on minneapolis.cbi.org and twitter @CBI Philly
<b>Skyway A</b>	Roundtable: Terms Building at Small Radio Stations	Roundtable: Funding and Using Local Music	Roundtable: Concert Planning	Post your questions here! Don't miss the Keynote! Don't miss the Awards!

**Saturday Afternoon Events:**  
NSEM Keynote Speaker, Clinton Forry, Northstar A, 2:00 p.m.  
2015 National Student Production Awards, Northstar A, 3:00 p.m.

tainment programming, public service announcements, podcasts and more.

CBI President Greg Weston told me that the awards ceremony was a highlight of the conference for him, saying, "It was great seeing and hearing the best work from student electronic media from around the country and the world — The American University in Cairo was a finalist — and WCCO(TV) reporter Reg Chapman was a great emcee."

The winning pieces can be seen and heard on the CBI website at <http://askc-bi.org/minneapolis/2015-cbi-national->

*student-production-awards-winners/.*

## LOOK TO PHILLY

A session was devoted to gathering ideas for the next CBI convention, scheduled for Oct. 20–22, 2016.

"We're very optimistic for CBI-Philadelphia," said Weston. "We're already working with local professionals to secure both speakers and tours for next year. Having the conference in the northeast will make it easily accessible by car or train to many, many schools that have previously had to fly, so we're expecting increased participation from

our members in that region."

With numerous college and high school stations in the Philadelphia area alone, it should be an action-packed event.

*Jennifer Waits is co-founder of Radio Survivor and co-chair of the College, Community, and Educational Radio Caucus for the Library of Congress' Radio Preservation Task Force. A college radio DJ since the 1980s, she's volunteered at four stations and has hosted a music show at KFJC(FM) since 1999. She obsessively tours radio stations, which she chronicles on her blog.*

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The schedule of sessions on the final day of CBI's convention demonstrates both variety and depth.

Although I couldn't make the official tours, I traveled on my own to see three college stations in the Minneapolis area, including KRLX(FM) at Carleton College, WMCN(FM) at Macalester College and KUOM(AM) at the University of Minnesota. Because I am fascinated by the early history of college, I was excited to visit several stations on campuses with long radio legacies, in addition to presenting on the topic. Both KRLX(FM) and KUOM(AM) are descendants of stations that date back to the early 1920s, and students at Macalester started doing campus-only radio in the 1940s.

## CONTENT STRATEGY

The conference concluded with a keynote speech by Clinton Forry, vice president of content strategy at Weber Shandwick. Although he works at a PR agency now, Forry started out as a college radio DJ at KGRK, when it was a University of Northern Iowa campus-only station. After college, he was a host at several radio stations and worked at PRI before becoming a content strategist.

Forry reminded student media participants that "radio programming is content too." He explained that online content should support a station's overall goals and reminded the audience that "online content sticks around" and requires regular maintenance to ensure that it's up-to-date.

Following his keynote, CBI announced the winners of its 2015 National Student Production Awards. Culled from 898 entries (the most ever for a CBI competition), winners were announced in 24 categories, including news, sports, social media, enter-

# Alpha Media: Live, Local and Hungry

The company's strategy focuses on local content and the receiving device

## RADIO'S LEADERS

BY CHRISTOPHER SPRINGMANN

Alpha Media is on the acquisition prowl again after consuming Digits' 116 stations in 26 markets, positioning the Portland, Ore.-based company as the fourth-largest radio ownership group in the United States as measured by number of stations, with 252 outlets in 54 markets, third in market penetration, according to the company.

That's zero to 252 stations in just six years. The company recorded \$115.1 million in over the air advertising revenue in 2014, according to an estimate from research firm BIA Kelsey.

You'd think Alpha Chairman Larry Wilson — who sold Citadel Communications in 2001

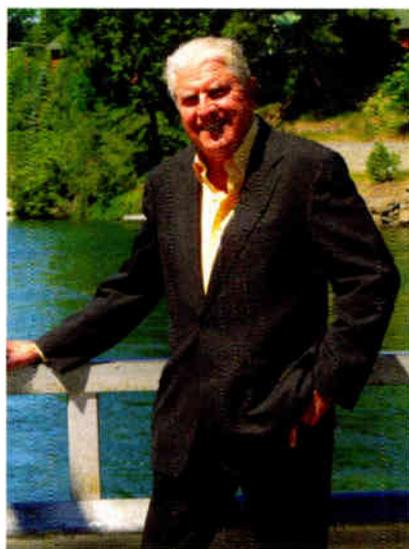


for \$2.1 billion, according to his company biography — might at least kick back now, having satiated his latest appetite for national growth and audience aggregation by doubling Alpha's size with the Digits acquisition.

Hardly. Wilson, 70, tells Radio World that he's got his eye on 25 family-owned properties because "families care about employees." Wilson also said he spends his days perusing a database of 10,000 U.S. stations, "the ones that Clear Channel, er. iHeartMedia, doesn't own."

To understand Wilson's motivation for plunging back into the radio business with clear-eyed fervor, you need to meet Bear, the ubiquitous Alpha rescue dog, who appears in caricature at Alpha's HQ, in print and online — even as an employee tattoo, we hear.

"Bear runs the company. I'm just this figurehead," says Wilson. "I rescued him up in Montana while I was distributing my wife's ashes in Glacier National Park. He was badly abused, with a busted-in face, an eye kicked out,



Larry Wilson

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an awful infection, but Bear is big and healthy now." The company's name and logo are a nod to Wilson's love of dogs, referencing "alpha dogs."

You could say that Bear actually rescued Wilson, who had left Citadel in 2001 to take care of his invalid wife, Claire. She died of cancer in 2008. "I was a lost soul, and some of my old partners asked me to get back in the radio business," Wilson said.

One of those partners was Bob Proffitt, the "Prophet of Profit," Alpha's president and CEO and the former COO at Citadel.

OK, the winning team is back together, they're on a buying spree — but how do they make money instead of just spending it? By buying right, investing in and empowering all-star local talent, acquiring live performance venues and always remembering it's about great local content. It's also about multimedia, interactive, the FM receiver chip and free-but-scarce concert tickets that build local listener buzz and loyalty.

Its wide-ranging initiatives include the *kink.fm* website and listener community, utilizing more video and qualitative statistics in sales presentations, and adding supplementary smartphone video reporting to news stories online. Additionally, Alpha Media is testing programmatic online ad sales in a few markets, offering access to the stations' Internet presence via customized, separate "lifestyle" sites for these advertisers.

NextRadio is a significant initiative within the industry, Alpha Media feels; the company views it as a beneficial asset to its stations in regards to expansion as well as continuing to be the foundation for news and local community information.

Additionally, Alpha Media stations produce different content for all of the platforms with which fans interact, such as Facebook, Instagram and Twitter.



Mike Everhart

**Everhart sees his role as a profit center, an asset and investment to be cheerfully exploited by management.**

Wherever fans are, the company is "holding a conversation with them, sharing on air videos, contesting and more," said Vice President of Marketing Randi P'Pool.

"Radio is now the number one medium, surpassing TV for the first time in decades," Proffitt said. "That is a proven fact by a recent Nielsen study. Also, for the first time, with another study, radio can show ROI up to 17-1 in some categories. That is significant."

Proffitt says, "Pandora and Spotify are music collection services, and they are very good at that. But you listen to them when you want to get away, change your mood, listen to music in a quiet area. Commercials seem out of place, and often you just hear them trying to get you to go to their 'premium' model, which costs and is commercial-free.

Only 4 million customers have signed up; Pandora gets 80 percent

of its revenue from commercials. We believe streaming is a supplement, not a substitute to broadcast radio."

Alpha's radio advertising breakout is an 80/20 business, according to Wilson — 80 percent of revenue is locally generated while 20 percent comes from national buys, like AT&T and Subway. But even national accounts can have a local spin on Alpha's stations, as is the case with Subway, with jocks reading and personalizing timely localized spots while munching on Subway sandwiches delivered to the station. Subway franchisees eat it up, according to Proffitt.

### "I ADVOCATE FOR ENGINEERS"

Buying properties starts with consulting Michael Everhart, Alpha's director of engineering. Everhart has the crucial role of station evaluation and integration specialist. His acquisition experience, decision-making and oversight are so valued that Everhart is as respected as a C-level executive.

According to Wilson, "Everhart is the best engineer I've ever known. He knows what the signal does as far as bringing in revenue. He's very important part of our top management team."

Everhart sees his role as a profit center, an asset and investment to be exploited cheerfully by management.

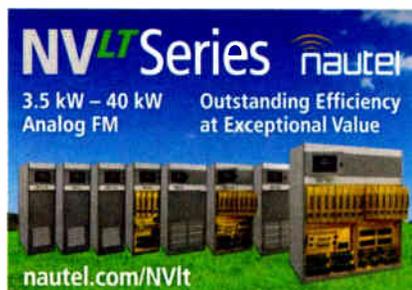
"In a lot of places engineers are viewed as nothing but an expense to be reduced or eliminated as much as pos-

sible," he said. "I advocate for engineers to be included in upper-level management discussions, in long-range planning because the work that they do is often pivotal to the success of the operation. I also advocate for the recruiting and development of engineers."

At the earliest hints of the Digits acquisition, Everhart was included in the conversation, as he has been since 2009. Everhart's first job in the acquisition was to give reassurance, to build respect, confidence and trust among the Digits folks he engaged. A spokesperson for Alpha Media declined comment for this story about the company's staffing plans; but Everhart does not seem to be the guy with a sword, slicing and dicing staff while cutting up existing formats and procedures.

Wilson says, "If there's a station that is

(continued on page 23)



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# Celebrity Connection Keeps Radio Relevant

Regardless of station format, listeners recognize (and remember) famous voices

How much would you be willing to pay for a cardigan sweater that Kurt Cobain once wore on MTV's "Unplugged" show? If you're prepared to cash in part of your 401(k), you're on the right track. Last month, Kurt's lycra-blend, too-cool-for-school sweater sold for \$140,800.

With this piece of clothing in mind, I'm sure you won't be shocked that the acoustic guitar on which John Lennon recorded "I Want to Hold Your Hand" and "Love Me Do" recently sold for \$2.4 million to an undisclosed buyer at auction.

These are not isolated instances. Over decades, the market repeatedly has proven that owning a piece of celebrity history has tremendous value in American culture.

Fortunately, radio stations remain in a solid position to capitalize on celebrity.

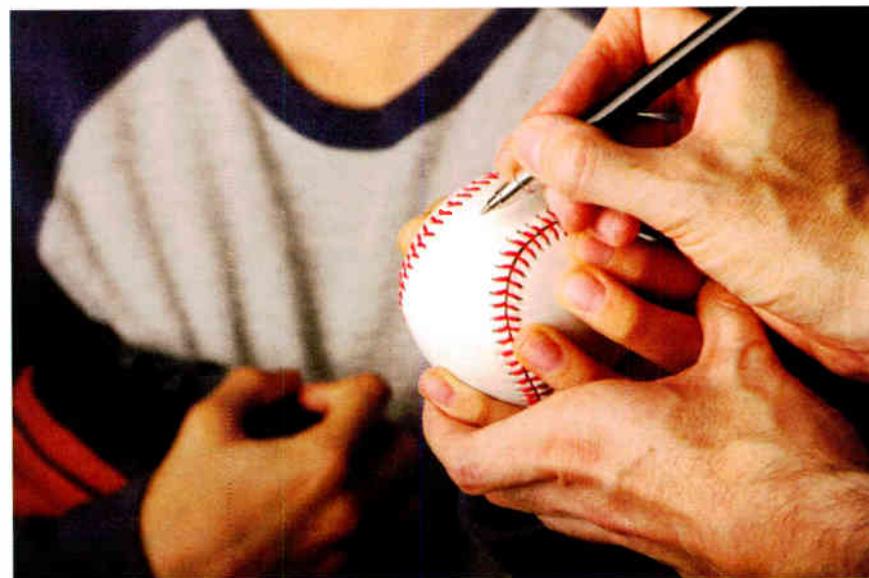
## FOUNDATIONAL

This connection needs greater emphasis in terms of weaving the theme into our foundational elements. Overt awareness of this "celebrity connection" must be integrated into our plans as part of our mission to stay relevant in the overall entertainment industry.

Start simple by making sure that your listeners regularly hear celebrity voices mention your station, your personalities and your city events. Be aware, however, that while it's not difficult to get stars to mention your call letters, it does take planning to get them

to help you plug charity fundraisers, to wish your DJs good luck in upcoming 10k runs or to offer a holiday greeting specific to your town.

And it's really amazing when you get them to talk about new songs they've just released and what these songs



**If you keep a baseball on hand, it's easy to pull it out when that star pitcher visits the studio. The ball can later be used to raise money for a local cause or given away as part of an on-air contest.**

mean to them. Of course, these sound bites have to be continually refreshed to remain relevant.

Are the format leaders in your company able to provide some of this opportunity? They may well, but most often this is best driven locally when

stars appear in your city or nearby.

And don't forget local stars! You almost certainly have famous home-grown athletes, musicians and entertainers who will register with your audience.

## GET IT IN WRITING

Next let's get tangible. Obtain commitments from celebrities to offer something to your listeners that money can't buy.

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Mark Lapidus

at an office; send flowers on Valentine's Day in a celebrity's name with a handwritten card; visit veterans in a local hospital; be interviewed by a high school newspaper reporter; get paid to be a roadie; or have a celebrity propose marriage from one listener to another. Meet and greets with celebrities never get old and listeners will talk about these experiences for a lifetime — giving your station credit for making it happen.

As to obtaining actual celebrity items for giveaway or to use in an auction to benefit a charity, I'm for it!

As the saying goes, "If you don't ask, you don't get." The trick is to plan far in advance and have one person take responsibility for obtaining the signature. Truthfully, this can be neglected sometimes with all the excitement going on when a star is around.

Often it's a matter of having the right item in your possession when a celebrity is being interviewed. I've worked at places that kept guitars, baseballs, basketballs and footballs around to be signed. Many celebs have written books and typically are cool about signing them. I've asked for and received signed pants, hats, shirts and CDs.

While you're too late to collect a pair of drumsticks (with a signed drum head) for Thanksgiving this year, they will keep without refrigeration until next year.

*The author is president of Lapidus Media. Contact him at marklapidus@verizon.net.*



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# Your College Is Dropping Its FCC License

Now what? Some stations turn to LPFM, others concentrate on streaming

## CONTINUING EDUCATION

BY DICK TAYLOR

When a college decides to sell the FCC license of its student radio station and move to an all-online radio experience, what's the impact on its students and its learning program?

I set out to find the answer to this question by talking with educators who have gone through this experience.

First, note that not all colleges that have decided to give up their student station's FCC license had an educational program in place that tied to the student radio station.

Vanderbilt's WRVU(FM) is an example. I spoke with the communications department chair Bonnie Dow and learned that there was no pedagogy—the method and practice of teaching—tied to the student radio station. WRVU also recently announced that it would be getting a low-power FM license and would be returning to the air in Nashville.

Another example is Rice University, which saw its student-run 50,000-watt FM license sold by the university to remain an online streaming radio station, later leasing another Houston radio station's HD2 signal. Will Robedee, the station's GM, told me, "A lot of people thought the radio station went away entirely." KTRU had been streaming its programming online since 1999, but leaving the FM analog band in 2011 was



A screenshot shows the primary online presence for KUSF.

a major blow. KTRU returned to the FM band with a 100-watt LPFM license at 96.1 on College Radio Day this fall, and there's a lot of excitement from both the students and the community about its return.

### STUDENT LEARNING IMPACT

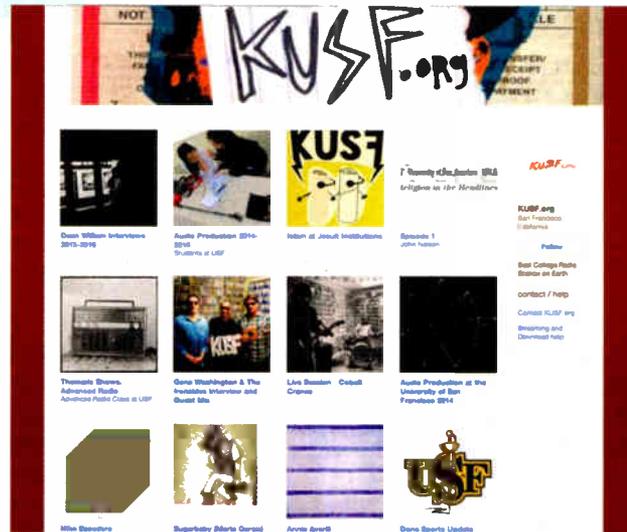
When I called Dr. Dorothy Kidd, chair of media studies at the University of San Francisco, I would finally get some answers to the question of the pedagogical impact of an institution terminating its student radio station FCC license in favor of a streaming-only station.

KUSF sold its FCC license in 2011, and four years later Kidd shared how the university navigated the change. First, the selling of the license set off a major firestorm in the city. Kidd told me that while she had fought hard to save the license, after about two years, reality set in. It was decided that, for the sake of the students, the program needed to rethink things.

She began to focus more on how the online radio station would be operated

and brought it in closer to the department of media studies. A new professor was hired to teach podcasting and other hybrid media skills that would complement the student-run online station.

"We decided we had to take the reality we were going to lose



The station also utilizes the online platform Bandcamp.

the FM license and basically had to go into the online environment and figure out how it would be positive for students and how we could support that with skill development," said Kidd.

But what ultimately changed? The station now has more student participation but community engagement has dropped dramatically.

"It's a big loss in a few different ways," said Kidd, "in that KUSF really

was the platform for San Francisco's vibrant arts community, and KUSF provided the glue that brought this community together. We have lost the local community emphasis of KUSF."

Not having an analog FM signal has cut into this community engagement and involvement with the students. They may not have a clue what's going on, even though it's only five blocks away. While Kidd says they are working hard to rebuild this aspect of the program, not just those inside the academy were upset about the FM license being sold; the community was just as upset. Healing those feelings and emotions is taking time.

"How this impacts pedagogy is that today's students, ages 18–22, are really into mediated communications but they really don't know much about what's happening on the ground," Kidd said.

KUSF has more than 200 students involved in the online radio station, but it has a much smaller listenership as a streaming station than the 20,000+ it enjoyed over the FM band. And this brings up another interesting problem with a streaming station. If KUSF builds its online audience to the size of its former FM listenership, its current equipment could not handle that number of connections; the station would need new technology to handle the online listenership.

Can students learn everything they need to know about radio via a streaming student station versus an FM or LPFM station? From a technical skills standpoint the answer is probably yes, unless the student plans an engineering career, where air chains remain highly specialized. But they will not experience the same connection with their local community with a streaming-only student radio station experience.

In the end, whether a college has a media program tied to the student radio station or not, the loss of an FM license in every case disconnects the station from its community, even though it can still be heard via the Internet.

That's something all broadcasters need to remember.

*Dick Taylor is a Certified Radio and Digital Marketing Consultant and assistant professor of broadcasting at Western Kentucky University in Bowling Green, Ky. He joined the faculty of its School of Journalism and Broadcasting after a 42-year career in radio. He is director of the KBA WKU Radio Talent Institute and is on the board of the New Jersey Broadcasters Association.*

## STATION SERVICES

### LEND A CAN REACHES 25TH YEAR

Rock-formatted stations in Portsmouth and Manchester, N.H., recently reprised an annual Thanksgiving can drive and radiothon for the 25th time. In 2014, the event raised over \$100,000, and over the last quarter-century, the event has donated over \$1 million to feed thousands of New Hampshire residents.

WHEB(FM) and WGIR(FM), both iHeartMedia stations, participated in the Lend A Helping Can on-air fundraiser Thursday and Friday, Nov. 19 and 20 from 5:30 a.m. – 7 p.m. It was hosted by morning show "Greg & The Morning Buzz" and presented by Burton's Outdoor Living.

The event was broadcast at "The Morning Buzz"'s Portsmouth studios and heard statewide on WHEB in Portsmouth on WGIR in Manchester, WQSO(FM) in Lebanon, as well as heard in other parts of New Hampshire and Vermont.

"To do this for 25 years speaks to 100.3 WHEB's and



Rock 101's commitment to advancing the issue and solving the problem," said Greg Kretschmar, on-air personality for Greg, who spearheads the event. "Every night in New Hampshire there are children going to bed hungry, and Lend A Helping Can has helped to feed hundreds of thousands over the years. One hundred percent of the money that we raise is given to 11 agencies that feed the needy."

The proceeds will go to The Salvation Army of Manchester and Portsmouth, My Friends Place, New Horizons of New Hampshire, The New Hampshire Food Bank, Community Action Programs of Strafford and Rockingham County, Community Partners, Families in Transition, David's House at C.H.A.D. and Crossroads House.

## ALPHA

(continued from page 20)

not working, we roll up our sleeves and we fix it. People need to be empowered, so we get them on a course we all agree on, monitor them but stay out of their way."

While Everhart and his team couldn't visit all 116 Digits properties in person, he says he worked closely with Lloyd Collins, his Digits engineering counterpart.

**You're not in the radio business unless you do good content. And a lot of our peers are heavily in debt, they're cutting costs and firing people. We're in the business of hiring superstars to do great radio.**

— Larry Wilson

and Digits CEO Dean Goodman to head off potentially expensive problems, such as "being off the air for an extended period of time, having a license that is revoked or under examination, two things that impact revenue generation," said Everhart. "You've got to have a good reputation with the FCC in an acquisition, an upgrade, a move, anything involving a transfer or license application."

Everhart asks questions like: Is there a 30-year-old unsupported transmitter or a deteriorating tower? Does existing software/hardware meet our compatibility needs? Do call letters, frequency, power level and transmitter coordinates as listed in FCC databases reflect the reality that we see when we go in for a visit?

For Everhart, it's about due diligence and following



Wilson is shown with his dogs. Bear is on the left, Muddy at right. "Bear runs the company. I'm just this figurehead," Wilson says.

an established playbook, understanding the value of assets to be acquired, plus determining deficiencies that could become negotiating points as the acquisition moves forward.

Everhart thinks like an uptime marketer, too.

"What you're really trying to do is get an audience into your tent, whether that tent is virtual, electronic, social media, software driven or even a real tent," he said. "In Alpha's case, that's the deeply local and relevant connection to the audience in the markets that we serve. We make it very easy for them to connect, as platform-agnostic as possible. And then entertain them and keep them around."

### MANAGING SCARCITY, BUILDING LOYALTY

Historically, local DJs have been visible figures at concerts, introducing name acts, plugging the local station and attaching a face to the voice. That model is alive and well at Alpha Media but with a twist: the company is now in the live performance business, developing and running its own venues and, according to the company, making money at it.

First, a little perspective: According to an August 2015 New York Times article, live music revenue globally grew from \$10 billion in 1999 to almost \$30 billion last year, as determined by data assembled by live-

music service Songkick. Average ticket prices rose 150 percent between 1997 and 2012. The audience demand for live music has accelerated as price-driven ticket scarcity has excluded major fan segments.

Enter Alpha Media with its products. They include the Skype Studio in Portland, with a capacity of 168, which supports the company's six radio stations in that market.

Is it a profit center, an interactive laboratory, a community connection? "It's all of the above, and you named them, one-two-three," said Proffitt.

"Number one is, we do make money off of it. We don't sell tickets. You got to be our friend. You got to earn them through being a frequent listener. You got to win them on the air. It's an up-close-and-personal way to connect, but we do sell sponsorships." Alpha owns the venue while Skype, part of Microsoft, is the title sponsor, having purchased naming rights.

Wilson said, "People love to interact with artists and it drives radio listenership. People meet an artist, they come back to our station to hear the artist. That's just the way it works."

Alpha Media also runs the Alamo Lounge in San Antonio, Texas; WIIL(FM) Rock's Studio East in Kenosha, Wis., with a capacity of 75 including standing room; a Columbia, S.C., theater under conversion that will serve six Alpha stations; and a former Adelante TV studio in Salt Lake City, Utah, which has been repurposed into a intimate performance lounge seating 40, serving three Alpha Spanish-language stations. Listeners must tune in to win these free tickets to all the venues.

"Alpha hires on-air super stars and lets them do their job, get involved in the community, charities and other local causes — that's it," said Wilson. "We want to keep our product great, and we work very hard at that. It pays off. It's a little harder when you got 252 stations, but we'll do it. We've done it before when I started Citadel in 1984."

Larry Wilson. He's back, he's bad *and* nationwide. Watch out, iHeart!

*Christopher Springmann is the producer of the syndicated "Life, Love & Health" health talk show.*

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# A Flavor of New York: From the AES Show

At the Javits Center, it was another year of great gear

## SHOW RECAP

BY ALAN R. PETERSON

Swinging back through New York City as it does every two years, the Audio Engineering Society International Convention returned to the Jacob Javits Center at the foot of 34th Street and the Hudson River, hosting another large and enthusiastic crowd of audio professionals from all disciplines over Halloween weekend.

Crowds have been steadily increasing following a major dip in attendance a few years ago due to Hurricane Sandy. In spite of the rejuvenated crowds, product exhibitors were again at the north end of the Javits Center, in a smaller exhibition hall than what we've experienced in the past. While somewhat "intimate" in feel compared to earlier years, this did not deter the crowds nor take away from



Get onboard the Telefunken bus!

attendees' enthusiasm.

Even though the conference catered to audio pros in fields ranging from gaming audio to music recording and multimedia, there was plenty to be had for the radio broadcasting professional.

The show also didn't skimp on the technical workshops nor the very cool products in the exhibition hall.

Admittedly, I went to see the new products. And there are a lot to talk about.

### MICS

For the pro broadcaster, the show has to start with microphones. Without them, well, you just wouldn't have *radio*.

Audio-Technica was particularly vocal (get it?) about its BP40 large-diaphragm dynamic mic, seemingly aimed at the E-V RE20 crowd. With a bright but nonsibilant peak around 3.8 kHz, the BP40 has a bit more clarity than an RE20, while still looking like it *really* belongs in a radio studio. And at \$489 MSRP, it is a contender in price as well as function. A-T also took the opportunity to display its premiere 5040 vocal condenser mic.

An attractive offering from Shure was the PGA181, a side-fire condenser mic popularly priced at \$99. According to Shure reps on the floor, the mic was drawing some interest from academia, where a balance between audio quality and cost is important.

Shure also brought out the "ain't it cute?" factor with the MV51, a USB condenser mic with built-in DSP function and headphone jack for live web-casting and recording, all dressed in a retro-styled case reminiscent of the company's classic Model 55 microphone.

By the way, if you have \$3,000 to burn through, Shure is rolling out the KSE1500 electrostatic earphone system in January 2016. Looking to all the world like a set of earbuds, the KSE1500 boasts some pretty remarkable specs.

Telefunken's microphone display was shown out of the back of a classic VW

Audio-Technica BP40



Shure MV51

Bus and included the M82 Broadcast Dynamic Mic, in addition to its line of condenser mics.

Recording mics don't get much more precise than the offerings from Earthworks. The familiar SR40 went through some design tweaks, including a new capsule and electronics that bring noise levels down another -16 dB, along with its unprecedented response out to 40 kHz.

Boutique microphones — those other than the bread-and-butter units in daily use in the studios — include the transparent (literally) LCT 940 from Lewitt, with a crystal-clear cover over the dual-triode tube in the mic body; the transformerless Mojave MA-50; the ADK Z-67, available in retro colors reminiscent of 1950s appliances; and the "Lollipops and Lipstick" convertible mics from 3 Zigma Audio.

Audio recording via smartphones and tablets is now firmly part of life. So Apogee got together with Sennheiser to present the ClipMic digital microphone for Apple iPod, iPad and iPhone use. When teamed up with the Apogee MetaRecorder app, the result is a fast, simple and accurate audio solution for field recording.

In fact, with smartphones and tablets increasingly becoming pressed into service as audio acquisition devices, it is necessary to be able to diagnose and measure them as effectively as any other audio component. Enter the APX line of

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audio analyzers from Audio Precision. The APx555 can be ordered with modules for testing Bluetooth, HDMI, ASIO and other standards.

### STUDIO TECH

Two familiar names to broadcasters are Tascam and Denon. Both were well represented in New York this year.

Tascam displayed the DA-6400 solid-state rackmount recorder, with a stunning 64-track recording capability. Intended not as a workstation, but more as a backup recorder for DAW sessions and live capture or touring recordings, I've got a feeling this technology won't stay in that domain very long and may trickle down to other aspects of audio recording.

Tascam also included a look at the DR-10X, a portable mic-attached recorder for field recording and radio ENG, recently reviewed in *Radio World* (Nov. 4, 2015).

While Denon has been moving away from broadcast products in favor of A/V and corporate audio, one item stood out: the DN-300Z. On the outside, a conventional-looking CD player, but this IRU baby plays audio CDs, MP3s, WAV and AAC files; has a slot for SD cards and a USB port for thumbdrives and external HDs. When things get really dull in the studio, there is an AM/FM tuner as well to listen to the competition.

Studios require complete control over noise, both outside and in. But visibility between performers and engineers is a must. Soundproof Windows of Reno, Nev., met the challenge with a line of studio doors, windows and glass sliders. A great advantage over older design windows is the ability to disassemble the elements and clean the interior side of the glass — something that cannot be done with gas-filled sealed systems.

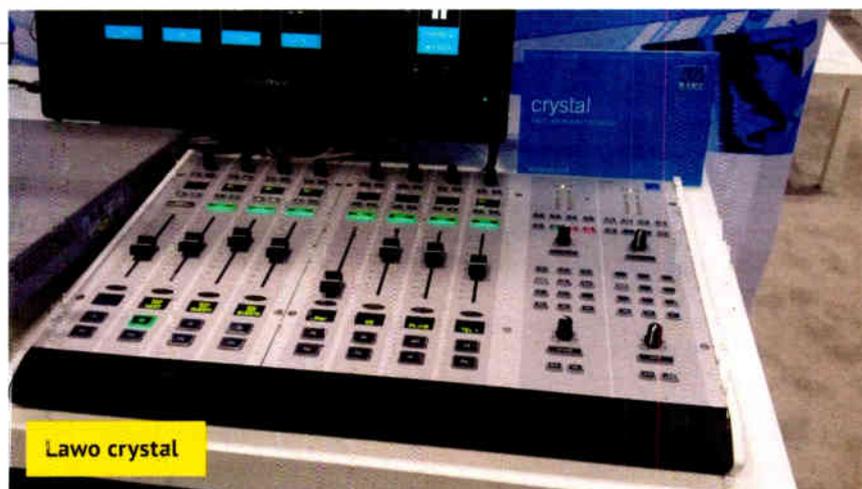
GK Acoustics touted its line of "green" sound control products, consisting of bass traps, panels and diffusers made without formaldehyde, and emphasizing eco-friendly components and manufacture processes.

Jocavi Acoustic Panels of Portugal proved panels don't have to be dull. The company's line of acoustic products are a bold departure from standard design, including the oddly knobby Two FX diffuser and wonderfully artsy Cosmos absorber.

It is always good to see WhisperRoom at the AES show. The flagship vocal booth design has not changed much from the company's initial offering in 1990, but why mess with it? We need isolation when recording those critical narrations, and even the single-walled S models come through every time.

### CONSOLES

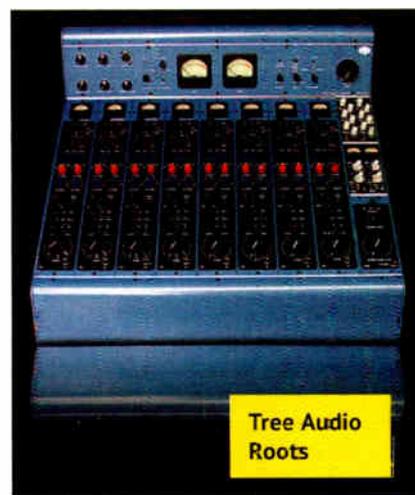
An attractive offering from Yamaha was the TFI TouchFlow console, with 40 inputs, plenty of DSP power and



Lawo crystal



Yamaha TF1



Tree Audio Roots

motorized faders. While earmarked for live sound, there are plenty of opportunities to use this mixer in audio production situations. Recall that the company's 02R and 01V consoles started out for pro audio applications but found a home in off-line radio production.

The Lawo radio broadcast mixing system was last seen in New York in 2013, and has returned in the form of the crystal and sapphire consoles. With the industry moving totally towards networked AoIP systems, it will be interesting seeing what inroads this German company will make.

And then there was the "Roots" audio console from Tree Audio in Los Angeles. In the middle of all that is

sparkly and new, seeing a retro all-tube audio console with real analog meters and chicken-head knobs was a refreshing breeze through the hall.

### THE DIGITS

On the digital front, iZotope teased its new Ozone 7 mastering software and the RX Post Production Suite — high-end products to be certain, but essential for rescuing old recordings and making new production sound its best.

Other than the obligatory Avid Pro Tools booth (just as spectacular as ever, naturally), DAW manufacturers again stayed away. Magix made a good stand with its Samplitude Pro X2 and Sequoia 13 offerings, but there are many other manufacturers who I believe would benefit from the visibility.

By the way, a stroll by the Avid display would have let you see the Sonnox line of plug-ins, including the entire Oxford series. This line, along with Waves plug-ins, is probably the most powerful and popular ones in everyone's tool box.

Retro fans, rejoice! Eventide went back in time and created 17 plug-ins from 40+ years of rackmount products. Called "Anthology X," this collection pulled together the best of the Harmonizer line, the Omnipressor, the Instant Flanger and Instant Phaser, and a few modern products as well. Word from the booth is that the software authors actually went back and bought used units from auction sites and analyzed them inside and out to get both the great old sounds and the sonic quirks of the aged boxes today.

Another old favorite, Electro-Harmonix, hit New York with a giant assortment of "stomp box" processors — lots new, and some based on 1970s designs. For many of us who couldn't afford rackmount processors back in the day, we would plug mics into these guitar effect boxes to get the sound we wanted. They still sound great.

### RADIO HISTORY

The conference included an acknowledgement to a historic technical development for radio broadcast, as the 50th anniversary of the Alford

antenna was observed Thursday, Oct. 29. The development of the Alford allowed multiple FM radio stations to broadcast through a single combined antenna array, rather than one antenna per signal.

Without this ability, it can be argued that putting FM signals up in major cities would have been a lot more difficult and expensive.

The AES and the Society of Broadcast Engineers combined forces to present this session on the 67th floor of the Empire State Building, where the original Alford still exists as a backup antenna.

### AND NOW, THE EXTRAS

Among the better "swag" giveaways on the show floor were the oversized mugs being given out by the Soundproof Window people. As you can see, it towers over my own classic 1989-vintage *Radio World* mug, and holds four times the volume. When my doctor asks me how many cups of coffee I drink in a day, I can semi-honestly tell him, "One."



Mugging for Attention

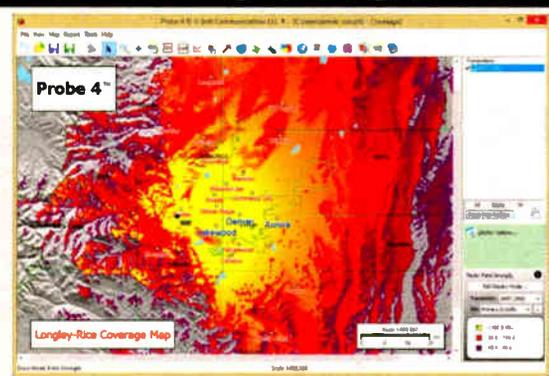
It was a treat to see Moog Music back in New York, if only to touch the massive modular patchable synthesizer the company brought as a backdrop to its exhibit. I trained on one of these in the late 1970s and used a MiniMoog in 1988 at WHEN(AM) in Syracuse, N.Y. For radio zaps-and-bleeps, there was nothing better.

Finally, I had wondered why, in recent times, I had not seen Sound Ideas and the Hollywood Edge at the same shows. This time, they were in the same booth, as the two sound effects titans had combined forces. Among this year's offerings is The Voice Kit, with human sounds ranging from laughs and growls to burps, and beyond.

The next U.S. convention will be in Los Angeles in late September 2016 and will cycle back to New York in fall 2017. I hope to catch you at one or the other.

*Alan Peterson is production director for the Radio America Network in Arlington, Va., and a longtime RW contributor. He has been attending and writing about AES conventions since 1997. Contact him at apeterson@radioamerica.com.*

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Equipment Wanted: obsolete, or out of service broadcast and recording gear, amplifiers, processing, radio or mixing consoles, microphones, etc. Large lots preferred. Pickup or shipping can be discussed. 443-854-0725 or [ajkivi@gmail.com](mailto:ajkivi@gmail.com).

I'm looking for San Francisco radio recordings from the 1920's through the 1980's. For example newscast, talk shows, music shows, live band remotes, etc. Stations like KGO, KFRC, KSFO, KTAB, KDIA,

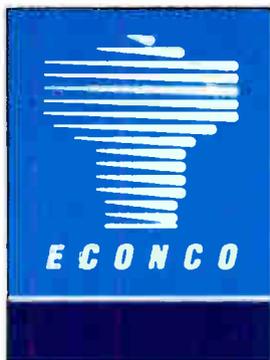
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Looking for a broadcast excerpt of a San Francisco Giant's taped off of KSFO radio from 1959, interviews with Willie Mays, Dusty Rhodes & some play by play excerpts, also features a homerun by Willie Mays and Felipe Alou stealing second base, running 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](mailto:ronwtamm@yahoo.com).

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20 KW	2004	Harris ZD20CD, solid-state
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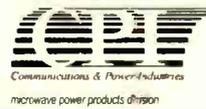
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# AMs “Stand Alone Against the Dragons”

Small station owner says the new revitalization order sharpens the sword

## COMMENTARY

BY JIM DOOLEY

*The author is owner of WYBT(AM) in Blountstown, Fla.*

I'm excited. I'm in my 50th year in broadcasting, moving into first-time management/ownership of my hometown AM radio station in Blountstown, Fla. This is where I started at the age of 14. (You *can* go home).

Understand that I am not an engineer (some who know me are laughing and saying, “That’s for sure”). I stumble around; sometimes things work, sometimes not. I have been blessed with engineers and friends who know how to do what needs to be done; I rely on them a lot.

Having worked as a program director, operations director and DJ, I've been disappointed over 20 to 30 years at how AM has been treated, especially in smaller to medium markets. Most owners just gave up and let the FMs take over.

No doubt there are noise sources now that have a damaging effect on AM signals, but I've always believed it's content that makes one station better than the other. I know little to nothing about the technical aspects of why AM reception is not as strong as it used to be. We can't pick up signals like WLS, WLAC, WWL, WBT like we could years ago. I can only compare to what I'm dealing with here.

Old, poorly maintained equipment is not a fault of engineers but of owners who don't want to spend the money to keep it up. I have a ground system that's been ripped apart by overgrown trees and lack of maintenance, which even this non-engineer can see is a major problem for my signal — even to one of my towns only nine miles away.

The station's previous owner also had an FM; however it's being taken off in another direction, noncommercial/educational.

I am the only local radio station in the area. I broadcast by day at 1000 kHz with 5 kW. I serve three small communities — one with no traffic lights, one with only two traffic lights and one across the river in the Eastern time zone with only one traffic light.

I stream my station, use TuneIn and try to offer local programming for this small area with music and the swap

shop, local news with sheriff's report, obits and birthdays and, yes, lost dogs, as well as high school sports and everything else I can do to service the community.

Three major cities, within an hour's drive to the north, east and southwest, have big-boy FMs. I can't compete with them on a signal level, and most of the “more popular” formats are all

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

### DAYTIMER PROBLEMS

The population of the two counties (not cities) for which I take responsibility as my local areas is just over 23,000 residents. They don't all listen to me but

**The large markets will always fight each other for whatever they can get, but in the small markets we stand alone against the dragons.**

around me. I play '60s and '70s top-40 oldies, and because I grew up here, music selection is easy for me. I am in the direct path of traffic from coastal Florida hurricane evacuation routes. Coming through my town is a quick way out when the weather gets bad, so I need a generator to keep me running in emergencies.

I see nothing but “up” in my future, with the new FCC rules and the thought of getting a translator to help with my signal and to please listeners who just

I still serve them. Yet I must sign off at sundown, which after we set the clocks back means dark at 5 p.m.

The county next to me is in the Eastern time zone. So by the time I sign on in the morning, they're at work or school. I'm worthless to them, except during their lunch break.

Relaxing some of the old AM rules, the ratchet rule, will certainly help me.

I've been told — and this could be wrong — one of the stations I protect by signing off at sundown is in Seattle.

Look at the map. It's *all* the way across the country from where I am in north Florida. Really? If there is a radio station within a 100-mile radius of me that's concerned about my station conflicting with their signal, they are not concerned about serving their own community.

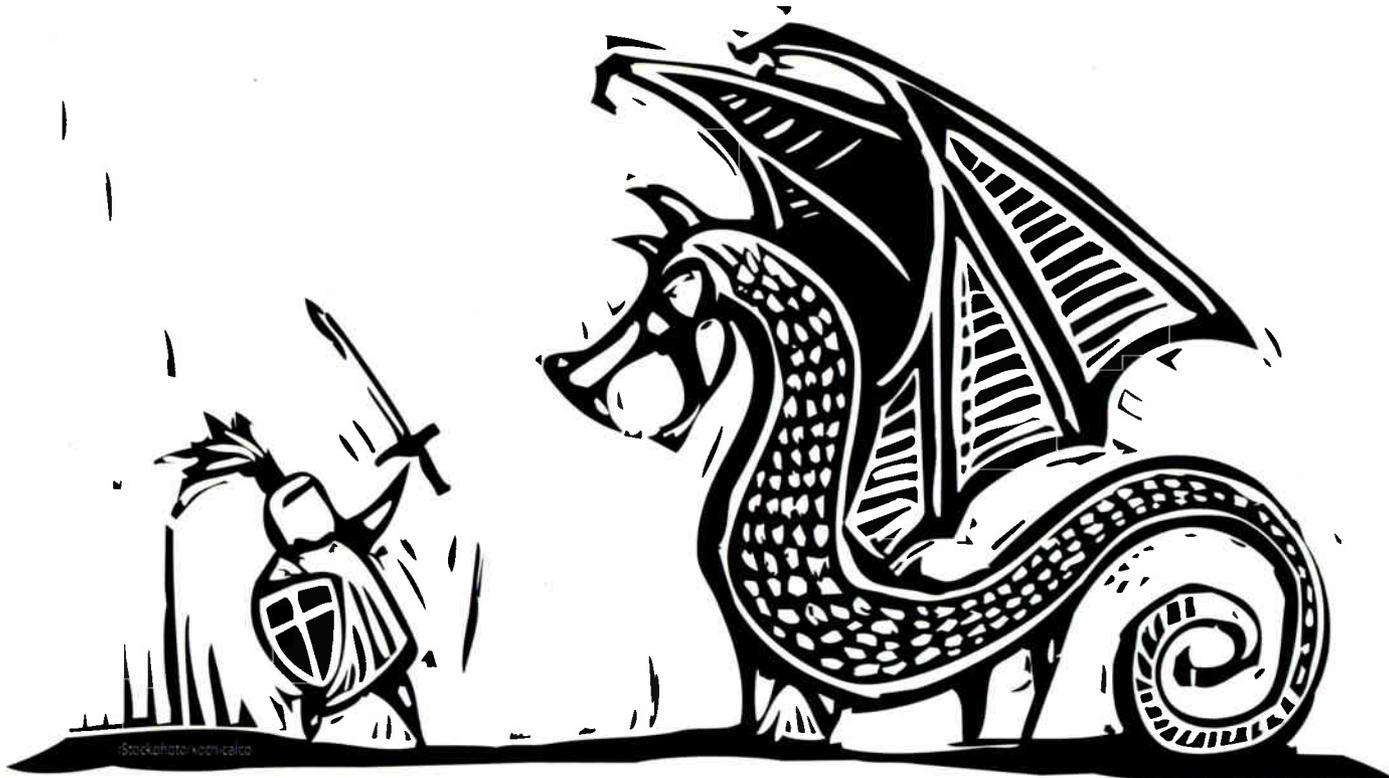
I've read most of the FCC revitalization order, and admittedly, my engineer will have to explain it to me. From what I'm able to understand, though, the 250-mile waiver rule to move translators will be a huge advantage for me. I can afford the expense of filing for the move once, but two or three times with the hop method plus the cost of the translator could prove too costly to attempt. That's money I can put into replacing my ground system.

I have a friend in Dothan, Ala., who does not have the ground system issues I do, but as a standalone AM, he, too, is surrounded by big-boy FMs. One of his competitors has a full FM, a 5 kW AM and ... a translator. Doesn't seem fair. AM revitalization rules are going to help the small AM stations like us serve our communities better.

The large markets will always fight each other for whatever they can get, but in the small markets we stand alone against the dragons. AM revitalization rules sharpen the sword.

Again, not too little too late for me. Actually, it's just in time.

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



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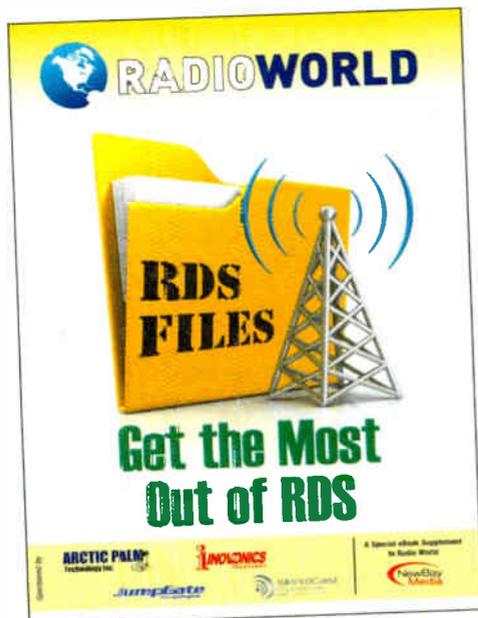
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Ron Kocher  
President  
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Paul McLane replies:

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**AM WINDOW APPLICATIONS**

I agree with Mark Lipp ("Diversity Will Not Benefit from this Process," *radioworld.com*, Nov. 11) on several points, but I feel some clarification is needed.

The re-farming of the TV Channel 5 and 6 spectrum, if it ever happens here, is going to be a very long process. AM broadcasters need some kind of relief that's much more immediate. So let's not take 5 and 6 off the table, but in the meantime let's get some small daps of analog FM spectrum that can become very useful on a much shorter time frame. In smaller markets (full disclosure: I'm involved in a 250-watt day-timer in a small market), this can be a lifesaver ... already has been in places I know about.

Only AM licensees can take part in these windows ordered in the R&O. This means that we're not talking about thousands of applications like we experienced in the 2003 window. A lot of stations around here already have their translator via the usual process. I think we can expect something around a thousand applications in the total window run.

Some AM stations in larger markets are sited so that a translator meeting the fill-in requirements would not cover even a quarter of the market area. Other platforms (HD sub-channels, webcasts) begin to look more attractive at that point. So I question how many applications we'll actually see. However, some stations may use the window to grab a second translator that they might not have been able to get otherwise.

Prices will go up — probably *are* going up as I write this. But applicants are going to be able to select from a potential pool of many more licenses and permits due to the 250-mile waiver, and also due to the FCC's generous offer to grant waivers on the construction time for Window 83 permits acquired in the modifica-

tion window. A lot of those permits were the result of pure speculation and were about to clock out unbuilt until this came along. Those speculators are standing by to take your call, I'm sure. So it's not clear to me that prices will just go through the roof. I know our group isn't going to just take the first deal we get. We're going shopping.

Mark also warns us about applications that may be objected to by full-power operators "if interference is caused." We need to clarify what he's talking about: 47 CFR 74.1204(f) provides that a translator application, even if it clears all the protection requirements to all other records in the database, might still cause interference to existing listeners in an area beyond the protected contour of the station in question. This rule says that station can claim that audience as protected and block any proposal that would interfere.

That is true and could be a problem for AM applicants. However, in my experience, broadcasters seldom pursue complaints of this nature, even if they actually become aware of the applications. They must prove to the commission that the audience exists with letters from actual listeners in the affected area, for one thing, and they know that they're just trying to paint outside the lines by trying to claim legal coverage outside the defined protected contour. Interference, including from IBOC, has increasingly wiped out that "fringe" coverage we used to covet when trying to DX that favorite FM from a big market. So enough already.

Small-market AMs like us should go forth and file, and try to get the best deal possible — if not in the modification window, then in the subsequent window for new permits.

Gary O. Keener  
Keener Technical Services  
San Antonio, Texas

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