NAB MANAGEMENT PREVIEW — Page 18

NewBay

MARCH 16, 2016 The News Source for Radio Managers and Engineers

\$5.00 1 RADIOWORLD.COM

Who's ready for NAB Show 2016?



Our show preview begins INSIDE

Preservation Effort Gathers Force

RPTF-supported projects include a recording search engine and Orson Welles collection

COMMENTARY

BY JOSH SHEPPERD & CHRISTOPHER H. STERLING

In late February the Radio Preservation Task Force of the National Recording Preservation Board, in which we are both involved, held its first national conference at the Library of Congress and the University of Maryland.

Scholars, curators, sound preservationists and archivists from more than 100 universities, museums and libraries converged on Capitol Hill to discuss steps toward preserving radio's aural history, including the many historical events captured by nontheatrical broadcasts such as news, town hall meetings. public forums and sporting events.

Participants attended from NPR, the Smithsonian, Pacifica, the American Archives of Public Broadcasting, Radio Survivor and multiple academic research groups. Presenters discussed the common goal of how to best assess, protect, preserve and implement current and future findings, with reference

2061-01128 ZA ROSDAT

J9 ATZUGUA Z EEDS

кнох

20004

697700000 7051-519

VZZIZIANI CHIEL ENDINEEB TON MILLER

TOTIS EBEROOD ANDS #1 EBEROOD# 958 II9Id-E HOS++0IN4+++++++ POINNX8# to conventional history work, museum curation, classroom pedagogy and material preservation actions.

UWOR

Sound preservation pioneer Sam

Brylawski served as the practitioner keynote of the conference. Brylawski mandated the task force as previous chair of the NRPB, to meet some of the recommendations of the National Recording Preservation Plan. The NRPB is now chaired by RPTF Convener (continued on page 12)



There's a Lot Happening in the World of EAS

Here's a summary of the recent annual EAS Forum in Washington

ALERTING

BY GARY TIMM

The author is broadcast chair of the Wisconsin State Emergency Communications Committee.

In February the annual EAS Forum, sponsored by the National Alliance of State Broadcasters Associations and the National Association of Broadcasters, was held in Washington. In attendance were officials from the Federal Communications Commission, the Federal Emergency Man-(continued on page 10)



Everything you need for on-air or production. Powered by Logitek's Dense Node Architecture.

Mosaic Digital Console

800.231.5870 www.logitekaudio.com



10 INCREDIBLY AWESOME THINGS YOU CAN DO WITH A BLADE BEFORE YOU EVEN NETWORK IT



World Radio History

SEE US AT NAB BOOTH N2530

Vheatstor BROADCAST AUDIO PERFECTIONISTS phone 1.252.638-7000 | wheatstone.com | sales@wheatstone.com

ADIOWORLD

Next Issue of RADIO WORLD March 30, 2016 Next Issue of ENGINEERING EXTRA April 20, 2016

Website: www.radioworld.com Emaii: radioworld@nbmedia.com | Telephone: (703) 852-4600 Business Fax: (703) 852-4582 | Editorial Fax: (703) 852-4585

For address changes and subscription renewal, please visit radioworld.com and click on the "Subscription" button. To submit letters or story proposals, to request writer's quidelines, or for other editorial matters, email the editor at radioworld@nbmedia.com

EDITORIAL STAFE

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

EDITORIAL CONTRIBUTORS

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

ADMINISTRATION & PRODUCTION

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

CIRCULATION

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

SUBSCRIPTIONS

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

CORPORATE

New8ay Media LLC PRESIDENT AND CEO Steve Palm CHIEF FINANCIAL OFFICER Paul Mastronardi CONTROLLER Rick No VICE PRESIDENT OF AUDIENCE DEVELOPMENT Denise Robbins VICE PRESIDENT OF DIGITAL MEDIA Robert Ames

VIDEO / BROADCAST GROUP

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

ADVERTISING SALES REPRESENTATIVES

US REGIONAL & CANADA: John Casey, jcasey@nbmedia.com T: 212-378-0400, ext. 512 | F: 330-247-1288 US REGIONAL: Michele Inderrieden, minderrieden@nbmedia.com T: 212-378-0400, ext. 523 | F: 301-234-6303 EUROPE, AFRICA & MIDDLE EAST:

Raffaella Calabrese, rcalabrese@nbmedia.com +39-320-891-1938 | F: +39-02-700-436-999

- LATIN AMERICA: Susana Saibene, susana.saibene@gmail.com T: +34-607-31-40-71 JAPAN: Eiji Yoshikawa, callems@world.odn.ne.jp
- T: +81-3-3327-5759 | F: +81-3-3322-7933 ASIA-PACIFIC: Wengong Wang, wwg@imaschina.com

T: +86-755-83862930/40/50 | F: +86-755-83862920 CLASSIFIEDS: Michele Inderrieden, minderrieden T: 212-378-0400, ext. 523 | F: 301-234-6303 adia com

LIST RENTAL: 914-925-2449, danny.grubert@lakegroupmedia.com

Radio World Founded by Stevan B. Dana

Radio World (ISSN: 0274-8541) is published bi-weekly with additional issues in February, April, June, August, October and December by NewBay Media, LLC, 28 East 28th Street, 12th Floor, New York, NY 10016. Phone: (703) 852-4600, Fax: (703) 852-4582. Periodicals postage rates are paid at New York, NY 10079 and additional mailing offices. POSTMASTER: Send address changes to Radio World, P.O. Box 282, Lowell, MA 01853.

For custom reprints & eprints please contact our reprints coordinator at Wright's Media: 877-652-5295 or NewBay@wrightsmedia.com

Globe graphic @iStockphoto.com / Edward Grajeda

Copyright 2016 by NewBay Media, LLC. All rights reserved Printed in the USA



MMTC Incubates New Minority Radio Owners

owner.

A conversation with three radio owners who got their start through MMTC's brokerage

COMMENTARY

BY MARCELLA GADSON

The author is communications director of MMTC.

Over the course of several decades. the Multicultural Media, Telecom and Internet Council's transactional arm, MMTC Media & Telecom Brokers, has worked to ensure that diverse voices and entrepreneurs are included in the nation's rapidly evolving and intensely influential communications industries.

MMTC, founded in 1986, and its brokerage, founded in 1997, have negotiated dozens of media and telecom deals totaling approximately \$2 billion in asset value. The firm has distinguished itself as the only minority-owned, fullservice media brokerage in the United States and is one of the leading media brokerage firms in the nation.

Since its founding, the brokerage has received 10 full-power AM stations donated by iHeart Radio (formerly Clear Channel), Mega Communications and Entercom. MMTC has used these donations to incubate and train minority and women entrepreneurs to manage and operate broadcast stations - a pathway to ownership for many.

"We're providing a unique service to the industry and the listening public by directly enabling the next generation of multicultural and women broadcasters to get their start in station ownership," stated MMTC President and CEO Kim M. Keenan. "No one else is doing that."

This is a conversation with three radio owners who got their start through MMTC's brokerage:

- Edward Distell, owner and general manager, KCKX(AM)/KZZD(AM), Salem, Ore.
- Darnell Washington, former owner, KTGF(TV), Great Falls, Mont., currently pursuing a radio acquisition
- · Kongsue Xiong, co-owner and general manager, KFXN(AM),
- Minneapolis, Minn.

Q: What made you decide you wanted to own a radio station?

Ed Distell: I have run radio clusters for years, but there was always a corporate safety net available and I wanted something more challenging. This time, it NEWS

Xiong: I first became involved with radio in 2000 on a nonprofit project with a subcarrier radio station as a way to help the Hmong community. I have also volunteered to assist with movie production projects, theater projects and other creative arts projects. I saw radio's value as a powerful tool to promote education and business and began to search for a standard radio station that I could own and operate. Finally, MMTC gave me the opportunity to achieve my mission.

Q: Tell us about your interaction with MMTC and what your process was for acquiring a station.

Distell: I found out from a friend that



Edward Distell, Darnell Washington and Kongsue Xiong

small radio group and make an impact on the country.

Kongsue Xiong: As an educator, I strongly believe in education and empowerment for my Hmong people to move forward with the mainstream society. The power of communication in radio broadcasting is the key motivation for me as an owner. Radio is a door-opener for entrepreneurs to share their business with the community, and also it is a valuable resource for the community itself.

Q: How did you become involved in radio? What is your background experience?

Distell: I started working part-time in radio during my college days. After college and service in the military, I went back to radio because I really and honestly enjoyed the business. I have run multiple clusters in several markets, and I have done just about every job at the station, from cleaning the production room to VP/market manager, prior to becoming an owner.

Washington: My first involvement with radio station management came when our former company took on the management of three radio stations in a small market via local management agreements. We managed these stations for about 1-1/2 years and had a blast.

a station could be available through MMTC. I made a phone call, and it happened. Seamlessly.

Washington: MMTC is a constant source of opportunity for minority broadcasters. My interaction with them has helped our companies acquire three different properties. For us, they have been a "one-stop shop" in helping with the FCC process of ownership, guiding us through the step-by-step plans of making a deal happen, and bringing additional investors to the table that we would not have been able to reach.

Xiong: I experienced many challenges with my subcarrier radio station, and I always looked for new opportunities through friends and professionals. An acquaintance in western Wisconsin who owned two AM stations directed me to MMTC's website, where I saw that the organization was dedicated to helping people of color succeed in broadcasting. I immediately contacted MMTC to help me keep track of the status of KFXN AM 690, which I knew was owned by Clear Chanel and had been off-air for nearly a year. MMTC let us know that the station might be donated and that further details were forthcoming. Thanks to MMTC, we now own a standard radio station to (continued on page 5)



is really all about what I can do as an

Darnell Washington: It seems that

television ownership has evolved into

more of the "big players only" type of

business, and the American dream of

owning a local television station and

developing the ownership into a small

group is almost gone. I hope to take a

From Radio Girls to #FoodPorn

From my bookshelf, four titles to stimulate your media senses

Oh it's book time again!

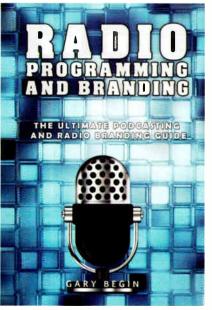
"Radio Programming and Branding" — If you are looking to improve your radio craft or to start your own show, podeast or station, Gary Begin has expertise to share in this 2015 book.

The style of his breezy work will be familiar to anyone who has read Begin's occasional articles in the pages of Radio World. The 200-page paperback — subtitled "the ultimate podcasting and radio branding guide" — offers techniques to help you thrive in today's digital world.

Typical chapters are two or three pages long and consist of 10 to 12 paragraphs of ideas. Topics include what makes a good PD: how to develop a personal brand; weekend programming; dealing with your consultant; how a GM can boost morale; top radio promotion categories; and resources for podcasting.

This is not heavy stuff but rather a series of chatty, real-world thought prompts, discussion starters and best practices intended to help freshen your approach to work or to set objectives in your new project.

Gary Begin is founder and presi-



dent of Sound Advantage Radio; he has worked in programming and on the air in Florida. Rhode Island, Michigan. Maryland, Georgia and Maine.

"Radio Programming and Branding" is put out by Library Tales Publishing and retails for \$17.99. The publisher adds that RW readers get a 15 percent discount if they order via www.librarytalespublishing.com/ and enter "RadioWorld15" in the coupon code field.

"Producing New and Digital Media"

- This new textbook is pitched as a guide to savvy use of the Web in an age of participatory media. It is written by James Cohen, program director for the Molloy College New Media Program, and Thomas Kenny, television studio and media facilities manager for the Communications Department at Molloy, and published by Focal Press, a source of many wonderful titles of interest to media professionals.

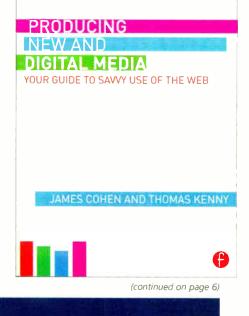
Their purpose is for readers to become wise in digital media by understanding the theories and cultural significance of technology, the platforms involved and the Web as a communication device. The authors want to help you become a storyteller.

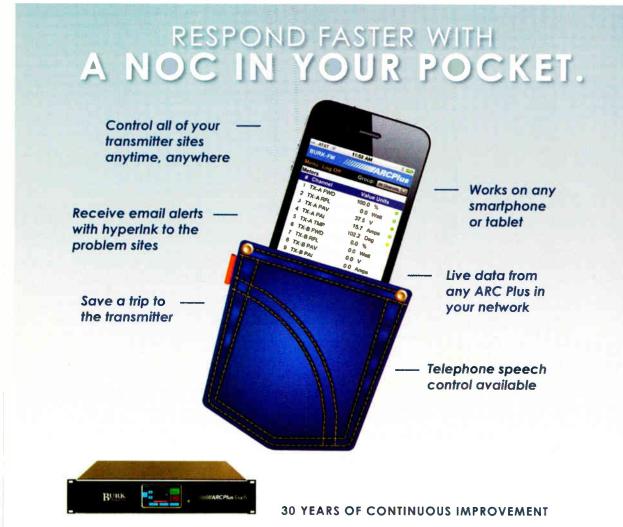
Major topics include creativity in the online environment; Web literacy; memes and online visual online language; viral videos; multimedia storytelling; and the online personal brand.



They explore why to participate in online communities, how viral videos work and the influence of Web television and memes on the digital landscape.

Yes it's a textbook but it's far from dull. This is for people who want to





Now you can take your Network Operations Center with you. Save a trip to the transmitter with an ARC Plus and your mobile device. Put a station back on the air, switch to a backup and respond to alarms instantly.

Experience the freedom of instant web-based control and live data from any transmitter in your market cluster.

Have an older Burk?

Upgrade in less than an hour without rewiring.

UPGRADE@BURK.COM WWW.BURK.COM/UPGRADE 978.486.0086 X7200



March 16, 2016

MARCH 16, 2016

NEWS

Preservation Effort Gathers Force
There's a Lot Happening in the
World of EAS1
MMTC Incubates New Minority
Radio Owners
From Radio Girls to #FoodPorn 4
News Roundup
The Circle of Life, Radio Style

FEATURES

Use These Tricks to Organize Wire . . . 14





NAB SHOW PREVIEW

Here's an NAB Show Events
Sampler
WTMX: Small Acts of Charity
Matter
Time Is Money for Radio Stations 22

BUYER'S GUIDE

Alaskan FM Station Powers Up	
With GatesAir	. 24
Tech Updates	4–26
Nautel's GV Series Revs in	
Motor City	



OPINION

Talkback: Readers Have Their Say 29 How Does AES70 Fit in the Studio?

MMTC

(continued from page 3)

help our Hmong community. I call it "a dream come true."

Q: What difference have you made in your community as a broadcaster? What accomplishments are you most proud of when it comes to serving your community?

Distell: I do not want to attribute a lot of accolades to my efforts within the community. Throughout the years, I have taken a few subjects to heart, including education, women's rights, alcohol and drug abuse, and children's hospitals (St. Jude and Miracle Network). These, coupled with serving on a few local boards, are among the things I hold dear, and I hope I was able to make a difference.

Washington: When we acquired our first television station, it was a deal that had a lot of hair on it! The station was losing its NBC affiliation in six months, and we had to come up with a plan to keep the station going in a small market. We were able to secure a "supplemental affiliation agreement" to air Fox programming and introduce the market to the Fox Network as a local affiliate. We were highly successful in doing that. During our 2-1/2 years of operation, we had a great time and proved that we could run a small group with two television stations and three radio stations under our belt. The community loved our stations, and we gave the larger broadcast groups competition in the market for five years. We also had a small news operation that led the market in response time, and we provided qualNFWS

ity entertainment that the community would never have had otherwise.

Please understand that minority ownership in local radio and television is extremely important to our local markets. Minorities provide a large part of the nation's entertainment, music, news and information. However, until investors open their pockets to minority broadcasters, the country will be held back in these same areas of entertainment. And, we will be missing thresholds that we can reach a lot faster otherwise.

Xiong: My life and the Hmong community completely turned around. It is very easy to communicate to the

NEWSROUNDUP

BIG APPLE: Several TV broadcasters will install transmission facilities at One World Trade Center, bringing broadcasters back to lower Manhattan some 14 years after the terror attacks events of 2001, Real Estate Weekly reported. A Durst Organization official told Radio World no radio stations have yet committed.

with pride in a daily life that is full of information and entertainment. I thank God for finding MMTC and its role in helping me build my dream business and positively influence the Hmong community. Comment on this or any story to

radioworld@nbmedia.com.



REGIONAL TEST: FEMA, state-level emergency man-

agers and state broadcasters conducted a test of the EAS in late February. "Broadcast and cable operators in 16 states, two territories and Washington, D.C., were able to participate and test their capabilities of delivering a national message to their listeners, viewers, and subscribers," a FEMA official said. Some confusion erupted when several states were dropped from the test just prior due to actual weather, leaving broadcasters waiting for a test that never came. FEMA said it would provide the opportunity to conduct individual state tests or make-up tests. Alabama was first to accept.

NATIONAL TEST: FEMA also announced a date for the second national test using an NPT event code message: Sept. 28 of this year. The first such test was in late 2011 and the results and next steps have been discussed since in detail by alerting officials with an eye toward improving the results.



community and promote businesses,

and the people are now well informed

on the importance of basic education

in this society and beyond. The local Hmong community was living a blind

and deaf existence in an information

age with no TV or radio to guide it.

Now, my Hmong community is living

(continued from page 4)

have a more organized understanding of topics like Khan Academy, lolcats, remix memes and #foodporn. For some readers, especially digital natives, the discussion may seem simplistic; for others it will be a welcome introduction to concepts that drive a new media universe but can sometimes seem daunting. Though written for students, it is a good way for any non-digital natives to learn stuff that their 15-year-old niece already knows, without being embarrassed.

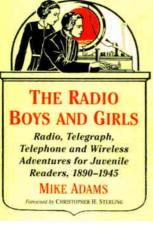
"Producing New and Digital Media" is a 266-page paperback from Focal Press (*www.routledge.com/focalpress*). I like it, though it's pricy at \$49.95 retail, a common problem with titles intended as textbooks (the hardback is \$150!).

"The Radio Boys and Girls" - Imagine a picture on the cover of a Hardy Boys detective story book. In the foreground, 16-year-old Frank stands outside a sinister cabin, peering through the window, presumably at bad guys inside. In the background, younger brother Joe crouches on the ground over a radio set, listening intently as the moon rises behind them.

What does Frank spy

through that window? What might Joe hear on that little radio set?

The picture appeared on the cover of "The Short-Wave Mystery" in 1945 and highlights the excitement boys and girls must have felt over the previous five decades when reading adventure stories involving various forms of wireless, telephone, telegraph and radio.



It's a superb subject for Mike Adams, academic and lifelong radio guy whose work I've noted here in the past.

"The radio juvenile fiction series was an early form of social media," he writes in the introduction. "A hundred years before the smartphone and the Internet, it was the book that brought strangers together in their common interest of wireless and radio. For the young reader, these books became a shared social experience as young boys and girls came together to build crude radios in their basements and garages and communicated back and forth."

Adams introduces us to numerous writers of juvenile fiction through a series of short biographies. We also learn about the "radio century," which he divides into four eras: wired communication (telegraph and telephone), wireless communication, the transition to radio and everything

after 1922.

Then he dives into the stories themselves: "Tom the Telephone Boy." "Bert Wilson, Wireless Operator." "The Radio Boys in the Secret Service." "The Radio Girls on Station Island." "Janet Hardy in Radio City." Reading his engaging plot summaries, we are thrust into adventures involving mysterious men, deep-forest rescues, ocean dramas, tobacco

smuggling, ghosts and cannibals. But we also read about crystal sets, CQDs, receiving inductance, tube amplifiers and plenty of satisfying, antediluvian tech talk.

Mike Adams is professor emeritus of radio, television and film at San Jose State University, where he has been department chair and associate dean of

More Radio, More Voices

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

"State Leadership Conference Closes" — The NAB said radio and TV leaders from all 50 states took part in its annual State Leadership Conference lobbying event. Read NAB's summary of the week's activities. See radioworld.com/leadership.



"Shoutca.st Finds Place Among Stations" - It sounds like the plot of a feel-



good teen movie: A 17-year-old teenager invents his own Internet radio distribution platform in his bedroom. From the international edition of Radio World. See radioworld.com/shoutcast. the College of Humanities and the Arts, and he has written a half-dozen books and created two documentaries for PBS.

"The Radio Boys and Girls" is a 240-page softcover with lots of fun period illustrations that will interest any fan of bygone radio topics. It is published by McFarland at a reasonable retail price of \$39.95. Find it at www.mcfarlandpub.com.

"Where Have All The Broadcasters Gone?" — This brief paperback is the 1996 autobiography of radio station owner and engineer Charles B. "Charlie" Persons, who lived 1909–1998. His son Mark Persons is a contributor to Radio World.

In this self-published book, Charlie Persons writes about starting in radio broadcasting at age 17 at WEBC at Duluth, Minn., and shares stories about a career of almost seven decades in radio and television cable systems, as well his experience becoming a private pilot.

This is one of a genre of personal radio books I've mentioned on occasion. You usually won't find them at your local library, unless you live in an author's home town. Sometimes they're very short and not well edited or executed (Mark Persons tells me his dad insisted the book be published "as he wrote it, spelling and grammar errors included").

But I tell you about books like this because they usually are labors of love. They provide personal insights into the lives of your fellow radio people. What such books lack in polish or proofreading, they make up for in love of the medium. Picking up such a book can be like having an unexpected opportunity to sit for an hour or three with a newfound

> "Expanded-Band AM Objects to License

Surrender Plan" — Sturgis

Falls Broadcasting is one of 25 expanded-band stations that still hold old

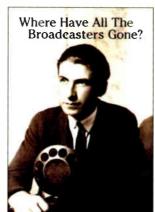
licenses too. It told the

FCC why it shouldn't be

in. Read about it at

required to turn one back

radioworld.com/surrender.



Charles B. Persons

radio pal who is old enough to remember when the FCC ordered stations to reduce power by 10 percent during World War II (and explain why), or recall working as an engineer at WEBC in 1929 and living in a bedroom downtown at the Y.

Find it at http://mwpersons.com/old-radio/books. htm. Retail price \$7.95 plus shipping. As I write, there are about two dozen copies left, with no plans to print more.

I have more books to tell you about so I'll have another column soon.

NEWS ROUNDUP

EXPANDED BAND: An owner with two AM frequencies in Iowa is not happy with an FCC proposal that would require it to turn one back in. Sturgis Falls Broadcasting is licensee of KCFI in Hudson, lowa, and expanded-band KCNZ in Cedar Falls. The commission is taking comments on its intention to require the last 25 such dual stations to turn in one or the other of their licenses. Sturgis said that if the FCC proceeds it will seek a waiver, in part because it had made "much investment in the facilities of both AM stations" and that it had brought AM service to Cedar Falls.

NAB VETERAN: Diane Goff

retired from the National Association of Broadcasters at the end of February. She worked for the NAB for nearly 47 years and is believed to be the organization's longest-



serving employee ever, present for practically half of its 94-year history. She started in an administrative role three months before the first moon landing in 1969, and worked her way up to bookkeeper and eventually to NAB's payroll and accounts payable manager. She is shown with NAB President/ CEO Gordon Smith.

WHERE COULD YOU GO ...

...IF YOU HAD ACCESS?

VISIT US AT NAB BOOTH C1633

© 2016 Comrex Corp

New Hampshire 2016 US Presidential Prima Talk Media News Radio Row NEED ACCESS? Contact us:

1 800 237 1776 info@comrex.com

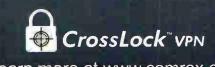


Now, You can go to even more places

ACCESS codecs now feature CrossLock[™] VPN Technology for superior reliability from even more remote locations. With the ability to use multiple data networks simultaneously, CrossLock gives you not just a **redundancy mode** but also a breakthrough cellular **bonding mode** with the industry's most advanced Adaptive Management Engine...plus a whole new suite of improved BRUTE (BRIC UDP Transmission Enhancement) tools.



WIRELESS CODEC FOR AUDIO OVER IP



Learn more at www.comrex.com



The Circle of Life, Radio Style

Pondering reports on the demise of terrestrial radio and other interesting tidbits

CONNECTED CAR

BY MICHAEL LECLAIR

A version of this story appeared in the Radio World eBook "HD Radio in the Connected Car."

The annual Consumer Electronics Show was in the news again recently, hawking the connected car as the "must have" consumer product of the future. Predictably, a recent piece in International Business Times responded by raising the question of whether this new development threatens the future of terrestrial radio as a business.

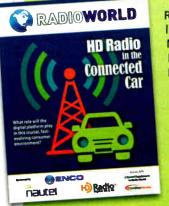
To be fair, the article was well-balanced, and who could keep themselves from smelling blood when all the flash and bang is coming from other consumer sectors? Or at least it appears to be in the context of a show sponsored by an organization that has a barely concealed distaste for the whole radio electronics industry.

That relationship soured all the way back at the beginning of the 10 Years War Over HD Radio. Digital radio was supposed to become the technology future, with plenty of new radio sales to drive the consumer electronics industry. Instead, as we know, the prospect of technological change was fought over internally with the bloody-minded ruthlessness of the American Civil War. The Consumer Electronics Association (which recently changed its name to the Consumer Technology Association) walked out of the room in disgust and shut off the lights long ago. Since then they don't talk much about radio except in carefully crafted "frenimous" commentary delivered in clipped tones.

If that last part seems a bit over the top, it's not far from the essential truth. CTA isn't going to carry any water for radio products, so don't expect any annual love from them at their main marketing event, right?

TOYS IN THE BACK SEAT

Which brings us to the question: Does the "connected car" mean the end of terrestrial radio? And where does HD Radio fit into this future?



Read what observers like Sam Matheny of NAB, Erica Farber of RAB, Scott Burnell of Ford, Mark Ramsey of Mark Ramsey Media, Roger Lanctot of Strategy Analytics and Geoff Snyder of Pandora have to say about HD Radio and the greater world of the connected car. Access the free

eBook "HD Radio in the Connected Car" at radioworld.com/ebooks. Of course the "connected car" has been around long enough now for us to understand the technology works pretty well and over time will get even better. My own cars at home use a Bluetooth system to link to my data phone, which allows me to play my own music or listen to streaming sources over the built-in entertainment system. It works pretty well in my urban area. It has not from Nielsen (2014) that confirmed a 93 percent weekly usage of radio by population in the United States, with this number rather evenly distributed across age demographics (in contrast to what some have inferred about radio skewing to older populations).

The public Internet has transformed the media industry in so many ways, largely due to its interactive possibilities. We just need to remember there are some tasks out there (driving, cooking, minding the family, and doing productive work) that are best done with lim-



been the "end of terrestrial radio," in spite of the presence of well over 75 million iPhones out in the wild, not to mention Android and other alternate mobile data devices.

Based on this proof of concept the automobile industry is now going to offer the next step down this well-trod consumer path: Build the wireless carrier connections into the car itself. This allows it to operate as a "hotspot" for multiple devices, which would no longer require individual, separate data contracts. For those "dour" parents who have held out against another \$70 per month contract for each of their twin 5-year-olds to get an iPhone 6, anything with a WiFi adapter can share the bandwidth off the hotspot, and Junior can play games in the back seat without someone up front having to sacrifice their phone. What's not to like about this concept?

However, there are some differences between what one does in a car and at home on the couch in front of the large screen. While we hear geeky predictions about cars that drive themselves, I think we are still a long way, and potentially some massive lawsuits, from when Mom hits a preset in the driveway and then relaxes while the car drives itself to work, always finding a free parking spot just by the front door.

Internet access can help keep the kids quiet by playing "Plants vs. Zombies" in the back seat while Dad does the shopping, but for now I think we all hope that it doesn't worsen the *driver* distraction that is already at dangerous levels. People are still going to want the kinds of audio-only entertainment that have traditionally been a great way to lessen the boredom of the daily commute. Radio has a strong history of serving this market very well, as demonstrated by recent studies ited interruptions. Somewhere out there a large majority of folks are just looking to be entertained while they do other tasks.

HD ADVANCES

How does HD Radio fit into this connected car future? It remains the one approved method of free digital transmission on FM: it isn't going away soon unless radio goes away. Ironically, now that we've reached the end of the HD Wars, adoption of digital radio is proceeding rather smoothly, with about 40 percent of all cars sold in the United States in 2015 featuring HD-capable radios. Record car sales appear to be the "driver" for HD Radio sales. It is due to the largesse and cooperation of the automobile manufacturing industry that we are now getting a mass population to sample HD Radio just at the same time they are sampling public Internet access in a mobile environment. But they serve quite different purposes.

HD Radio quality remains head and shoulders above its most direct mobile competitor Sirius XM, and we are seeing now more radios that can display typical music metadata such as song title and artist. In major markets the group stations have this well supported. I am even seeing a smattering of radios (mostly in car model years 2014 and later) that have graphical images to go with their music programming. Again, in major markets the group stations have this largely in place; it is mostly a matter of waiting for the radios to work their way into the cars via new sales and the aftermarket. Graphics are an enhancement that has not yet been answered by satellite, which seems content to use every ounce of band-(continued on page 10)



Series

TELLE

GV30

3.5 kW – 88 kW Digital/Analog FM



Digital, Efficient, Intelligent, Refined

The GV Series is the culmination of years of Nautel digital/analog transmission innovation. Nautel's field-proven high-power FM architecture s mated with the industry's most advanced RF technologies and Nautel's award winning control system to set a new standard for digital performance, efficiency, serviceability and unmatched functionality. Learn more at www.nautel.com/GV

Making Digital Broadcasting Work.

nautel.com/GV





NEWS

EAS FORUM

(continued from page 1)

agement Agency and the National Weather Service. A number of pertinent EAS issues were discussed.

NEXT NATIONAL EAS TEST

FEMA announced that the next nationwide EAS test will be conducted on Wednesday, Sept. 28, 2016 at 2:20 p.m. EDT.

This test will use the National Periodic Test (NPT) event code and the National location code, 000000. FCC rules becoming effective on July 30, 2016 require that all EAS Participants immediately relay this test.

Results of the test must be reported by each EAS Participant into the FCC's Electronic Test Reporting System, which the FCC stated in the meeting they are targeting for launch in June. EAS Participants will then have 60 days to enter their initial data described in the EAS rules, in advance of the national test.

STATE EAS PLANS

In the current EAS Notice of Proposed Rulemaking released on Jan. 29, 2016, the FCC proposes to have all State EAS Plans submitted online. In the meeting, the commission stated that they want State Emergency Communications Committees to continue to submit updated State EAS Plans, and if the online plan proposal is adopted they will ingest the current plan files into the online portal.

The NPRM proposes to widen the scope of State EAS Plans by including details on state use of Wireless Emergency Alerts, highways signs and social media. The FCC clarified that it doesn't intend to require all states to implement these alerting methods, but wants to leave room for innovation by states that want to do so. The FCC also noted that it is concerned about the lack of cable operator participation on many SECCs.

The commission agreed with a suggestion that the topic of drafting needed members onto SECCs be taken up by a future Communications Security, Reliability and Interoperability Council, which is an FCC federal advisory group that provides recommendations to the commission.

DASHBOARD

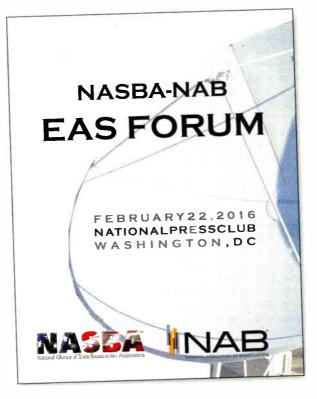
(continued from page 8)

width offering more regional-specific programming if possible.

In terms of look and sound, it would appear that HD Radio, whose creation was in many ways a response to the threat of satellite radio, has technologically surpassed satellite radio, at least with regards to techno bling. Visuals seem to be an essential in today's media.

SNEAKERNET FOR CARS

HD Radio also offers a modest data download. While not all stations use it, iHeartMedia's Total Traffic & Weather Network is distributed over HD Radio into more than 200 metropolitan areas across the U.S. Some new opportunities for this data stream are becoming possible and could be deployed in the near future.



NWS EAS ALERTS VIA THE IPAWS EAS FEED

Currently, the NWS is not sending weather alerts over the Integrated Public Alert and Warning System (IPAWS) EAS feed, because of issues with the inability to detect duplicates of the same alert issued in legacy EAS over NOAA Weather Radio vs. the Common Alerting Protocol (CAP) version.

Although NWS is currently deploying new software for controlling NWR, called Broadcast Message Handler (BMH), this upgrade will still only be a partial step to curing the duplicate alert detection issue. NWS is interested in a recommendation by a past CSRIC group to add an identification tag to EAS messages to cure this issue, and will likely propose such a solution in its NPRM comments.

NWS was also questioned as to whether the new

Modern entertainment systems that are prepared for Internet browsing almost certainly contain m.2 SATA drives (or the equivalent), which are essentially solid-state hard drives that are the size of a postage stamp. Size notwithstanding, these drives can store up to 500 GB of data and/or a full operating system like Windows 10 or OS X. The on-board storage opens up the opportunity to cache visual images that can be called by something like HD Radio to load on command. Five hundred GB is more than enough to cache high-resolution album art or other supporting graphics such as short videos (but careful of that distraction problem). Cache is always faster than download, even when it comes to 4G wireless. Cheaper too. Database upgrades can be handled by a USB stick supplied to the customer or a background download supplied wirelessly via HD or a wireless mobile carrier.

TROUBLE FOR SATELLITE?

I was surprised to note that Sirius XM reported an uptick in actual (paying) subscriptions in 2015, and we shouldn't ignore the implications of the continued existence of this medium.

First, it bears repeating that 2015 was a banner year for automobile sales, and satellite radio has always leveraged new car sales to drive adoption by offering free six-month subscriptions.

Second, it appears there will just always be a percentage of people who want the style and limited interruptions that are characteristic of satellite radio music programs. Indeed the history of this format extends all the way back to beautiful music stations in the 1960s or their subscription counterpart, Muzak. It's not for everyone, which is why it is supported by subscriptions.

The connected car in fact establishes a new competitor for satellite radio, as services like Pandora and Spotify are offering for free the kind of music

BMH software will now allow NWR to carry the president's Emergency Action Notification (EAN) EAS message. NWS responded that BMH is a stepping stone, but not a full solution. However, NWS, FEMA and FCC will continue to work toward that goal.

CSRIC EAS PROGRESS

The current CSRIC Working Group is making progress with recommendations to the commission on three EAS topics: fostering adoption of EAS security best practices by EAS Participants, updating the EAS Operating Handbook and multilingual EAS alerting. The reports of these groups will be delivered to the FCC at the March and June CSRIC meetings.

PEP UPGRADES

FEMA reported that some new Primary Entry Point stations were added over the last two years, and now the focus is on modernizing the 30-some original PEP stations to replace their aging equipment. In addition, FEMA has now transitioned to satellite-based delivery of the EAN message to PEP stations, which also allows two-way communications with individual stations.

FILE YOUR COMMENTS

The FCC acknowledged that there are a lot of proposals and requests for comment in the current EAS NPRM, and at many points during the meeting stressed that they want official comments submitted by all parties in the EAS community.

The commission has stated many times in the past that they do not make decisions on adopting new rules based on their own judgement; decisions are always based on the comments received — whether for or against any particular FCC proposal.

Don't just sit in your chair saying, "That's a great idea" or conversely, "That's a terrible idea" — make your comments known. Especially, don't presume that something is so obviously right or wrong that comment isn't needed; the EAS community has gotten caught in the past by not commenting and after the FCC implemented the rule they rescinded it after an uproar.

Please state your opinions, it's easy — see www.fcc. gov/ecfs.

services with limited (i.e., machinegenerated) curation that resemble the low-key style of subscription radio. And for a few bucks more you can get them with fewer commercials and, I suspect, higher fidelity than satellite.

While the Times might be wondering about the demise of terrestrial radio due to the coming of the connected car, it may well in fact be bearing witness to the beginnings of the demise of satellite radio.

What do you think? Weigh in by emailing radioworld@nbmedia.com with "Letter to the Editor" in the subject field.

Michael LeClair is chief engineer and manager of broadcast systems for WBUR in Boston, responsible for all the technical aspects of its radio transmission and audio production facilities. He is the former technical editor of Radio World Engineering Extra, where he continues as a contributor.

Networkable Consoles PRICED SO AFFORDABLE they're irresistable

The Flexiva Oasis is a high-value standalone audio console for on-air and radio production applications. Simply connect microphones, source equipment and audio monitors directly into the Flexiva Oasis console and be on the air.

Flexiva Oasis allows facilities to cost-effectively and easily migrate from analog to digital whenever they're ready. In add tion to capabilities for all necessary audio and logic components, Flexiva Oasis provides both analog and digital outputs enable facilities to connect to modern STLs and studio infrastructures.

*this is for the 8-channel



GatesAir Flexiva Oasis Networkable Digital Console

starts at \$3800."

Call SCMS for more information

1-800-438-6040

www.scmsinc.com

Mid-West



Pro Audio/South-East

877-640-8205

Latin America 760-650-1427

West Coast 818-398-7314

Central

Western Mountain States

303-674-6566

North Central 573-478-3737 315-623-7655

Southern Gulf 866-205-6905

North-East 844-436-4327 **TV and Video Products** 702-566-4194

315-623-7655 Mid-South 877-391-2650

Bradley Division 800-732-7665

PRESERVATION

(continued from page 1)

and Director Christopher Sterling, who introduced Brylawski at the conference. Paddy Scannell, eminent historian of the BBC and founder of the internationally influential journal Media, Culture, and Society, served as academic keynote for the conference.

MILESTONE EFFORT

The RPTF is a growing consortium of 175 research directors, associates, caucuses and Library of Congress employees. The conference represents a milestone for film and media studies, uniting cutting edge innovators in digital humanities with experienced sound archivists and prominent cultural historians.

The eventual preservation and processing of radio materials will be of great service to historians and listeners. Radio provides diverse insight into local cultural history, and indeed sometimes represents the sole remaining primary sources of historical experiences, when print sources are scarce or no longer available.

During 2015 the RPTF made strong progress in organizing for a long-term national preservation project.

The first action was to sign up more than 100 researchers to scour librar-



About 285 people took part in the first national conference of the Radio Preservation Task Force, held at the Library of Congress and University of Maryland.

ies, universities and radio archives to see what radio sound materials were already available. By April 2015, the Task Force research associates identified roughly 350,000 recordings, of which only a few thousand are currently digitized, with many more remaining on obsolete technologies such as reel-to-reels and DATs. Initial findings were enough to encourage Library of Congress staff to green-light a second phase of the project, which began over the summer of 2015 and has consisted

of building a decentralized network between academic, federal and archival groups toward the common goal of radio preservation.

Over that time the task force has recruited experts in content areas ranging from African American civil rights to Spanish language, to baseball radio history, to identify the most crucial recordings for preservation. Due to these considerable initial findings, and the expectation that once archival aggrega-



From analog FM to best-in-class HD Radio on your schedule and budget



Flexiva™ Gen4 Exgine HD Radio Solution

- High-efficiency transmitters with industry-leading performance, compliance
- End-to-end management for multichannel program transport and delivery
- Industry's most advanced guality and diagnostics with robust Flexiva exciters



Transition to superior digital with exceptional ease and affordability









tion exhaustively resumes that the task force will easily turn up over 1 million radio recordings, the RPTF plans first to aid with the digital preservation of materials deemed most in need of preservation and circulation, as decided by research specialists in various areas. Research specialists will also help unite the materials of "split collections," or recordings from a single location or featuring a single broadcaster, which have been spread among multiple archives.

The RPTF has also commenced an "Endangered Collections" initiative, to save radio collections that are in danger of disappearing. Working with a distinguished board consisting of members of the Library of Congress. Smithsonian, NPR and major universities, the task force is seeking shelf space from archives looking to buttress their collection and reputation among "sound studies" researchers. The RPTF hopes to locate one willing archive per state, so that when emergency situations with materials arise that shelf space is on hand for a task force-approved deposit.

UP NEXT

Over 2016 two more of the task force's major initiatives will begin.

First, in collaboration with the Association for Recorded Sound Collections and Indiana University, the RPTF is building a "big data" search engine that will help researchers and listeners locate available radio recordings, while also providing many broadcast examples deemed distributable under "fair use," plus suggested syllabi for all educational levels, developed by our caucus content specialists.

Second, the RPTF will be applying for preservation and curation grants with our partners at multiple university archives, as well as with Pacifica Radio Archives, considered by many to be the great collection of postwar local and community radio history in the U.S. In collaboration with the National Recording Preservation Foundation, the RPTF has already distributed its first grant: to the Lily Library at Indiana University to digitally process, preserve and distribute the complete Orson Welles radio broadcasts. This will be the first time these recordings — which are all now in the public domain — have been made available in completion. We expect to build a special website with these materials sometime in 2017.

Josh Shepperd is assistant professor of media & communication at Catholic University, national research director of the Radio Preservation Task Force of the NRPB, and planning director for the conference. Christopher Sterling is an associate dean at George Washington University, a broadcast historian and chair of the National Recording Preservation Board of the Library of Congress.

NEWSROUNDUP

ERNIE JONES: The National Association of Tower Erectors and the Tower Family Foundation established the Ernie Jones Memorial Civil Engineering Scholarship at the University of Evansville in Evansville, Ind. They announced it in an emotional event at a NATE convention in New Orleans. Jones died in October 2015 in an elevator-related accident while inspecting a tower in Oklahoma City.

ALPHA MEDIA: After closing on its previously announced purchase of Digity's radio stations, Alpha Media is now the fourth-largest U.S. radio owner by station count. The \$264 million deal means Alpha now has 251 stations in 53 markets.

DIGILINK~HD

- Single station to Multi-site Group
- VPN Remote Voice tracking
- Your Music scheduler or ours
- Multi-sound card Console interface
- Live & Automated Games with Rain delay
- Share audio files across the hall or continent



ARRAKIS SYSTEMS INC.

Scalable, high speed Radio Automation for Multistudio, Multisite Applications



Digilink-HD (DHD) is designed from the ground up for today's fast paced, distributed content, single station or multi-site Group. It empowers local and remote talent to collaborate to deliver exciting content, build your audience share, and increase sales. DHD has the tools to enable you to work faster, work smarter, and do more. For Dn Air, DHD supports live on air, live assist, hard disk automation, satellite automation, and Games automation. DHD supports multiple sound cards for interface to a console and live crossfading. Audio files can be shared across the station or across the planet. To create live sounding automation and facilitate flexible use of talent. DHD features a powerful segue editor, voice track recorder-editor, and remote voice tracking over a VPN (virtual private network). The voice track recorder-editor supports complete control plus the ability to assign a music bed under the voice track with ducking. DHD supports any kind of programming and any size market or multi-site group.

4 On Air Station cluster only \$500 / month

970.461.0730

www.arrakis-systems.com

S FEATURES

Use These Tricks to Organize Wire

Learn from these examples to improve your own setup

WORKBENCH by John Bisset

by John Disset

Read more Workbench articles online at radioworld.com

Retired WFMT Chicago Chief Engineer Gordon Carter saw the Workbench column in the Feb. 17 issue and for a moment thought we had published an old picture from WFMT.

When the station moved to Illinois Center in the early 1980s, Gordon did something similar with his wire spools. At that time Gordon was doing a lot of building, and had on hand a 1,000-foot spool of each solid color of #22 stranded plus a 100-foot spool of each of the striped varieties. He also kept a few other frequently used spools. Gordon and his team used a full 10-foot length of conduit to hang all the spools in the engineering shop.

He offers a few tips for this kind of wire spool management setup.

First, make sure your brackets are anchored firmly to studs and *not* into drywall. Gordon tried some drywall anchors, which immediate pulled out when they put the wire spools on the conduit. In Gordon's case, they had metal studs in the wall, so they actually used expanding anchors through the metal studs. Normal methods of anchoring to the metal stud just didn't hold. Although the studs held firm, there just wasn't enough support to keep the screws from pulling out.

Gordon found that if you pulled the wire off the spools too quickly, the spool would continue to spin, leaving several feet of wire on the floor. The hangers were high enough that he and his team could not reach the spools without a ladder, so it wasn't practical to roll it back onto the spool. Instead, they found that wrapping the conduit (or at least the top surface of the conduit) with gaffer's tape gave enough friction to control the spinning spools. Gordon advises not using duct tape, as it is too slippery and doesn't provide the necessary friction. The cloth gaffer's tape was the best thing they found for this job.

To help maintain some order, each spool of wire had a screw eye on the wall that the wire ran through. This helped keep the wire in sight and in order, so you can find the one you needed quickly. Gordon also went a step further and put a single larger screw eye on the wall a foot or so below the others. He used this to help when pulling several colors at the same time. You could pick the colors you wanted, and then thread them through the larger eye, so you were pulling all of the wires in the same direction. Gordon and his team found this especially helpful in cases where they needed wires that were not consecutive on the conduit.

Thanks, Gordon, for sharing your wire management techniques.

Wolfram Engineering Principal Greg Muir also saw the closet hanger/wire spool tip and says he has used this approach on a few occasions. He even installed closet brackets to hold pipe on his patio to support hanging planters.



Fig. 1: An end cap screwed on the end of the support pipe would prevent the spindle from slipping off its support.

Greg noticed that Steve Smit had selected threaded steel pipe instead of conduit (Fig. 1). Greg has found that the friction caused by the heavier wooden wire spools sometimes has a tendency to rotate the pipe, causing it to "walk" off its respective hanger if no means to stop sideways movement is provided. The solution is to screw pipe caps on the ends.

In the case of conduit, I've seen engineers drill a hole through the end of the conduit and into the hanger, then insert a 2-inch bolt to keep the conduit in place.

Remember our Left-Hand/Right-Hand nut, also in the Feb. 17 column? Rod Simon studio engineer for Moody Radio in Chicago, writes that he and several fellow students at Linn Tech designed a similar nut, along with a threeprong tuning fork, back around 1973. Or was it a Right-Hand/Left-Hand nut?

Either way, it's good to see students using creativity in drafting class. Radio World Editor in Chief Paul McLane suggests you Google "impossible objects" and "impossible shapes" to see more fun stuff along those lines.

Do you maintain an AM directional? When was the last time you checked your phasor cranks?

Check the crank and turns counter assemblies periodically, especially before any adjustment. Over time, the set screws that hold the crank assembly to the variable coil or capacitor shaft can loosen or slip. The result is that the turns counter displays a full turn of the phasor crank, but because of the slippage, the variable coil or capacitor turns only a fraction of a turn. Thus a phasor can get really fouled up, displaying turns counter numbers that have no relationship to how much the coil or capacitor was actually turned.

The solution requires an extra pair of eyes. With the transmitter off and using a strong trouble lamp, look to see that the adjustable component turns smoothly while another engineer turns the adjustment crank. Before you begin, record both the turns counter dial indication *and* the position of the adjustment arm.

Turn the crank one full turn in one direction, making sure there is no slippage, and then rotate the crank in the opposite direction, back to the starting point. Tighten the shaft setscrews if you note slippage.

Thanks to consultant R. Morgan Burrow, P.E., for the maintenance tips.

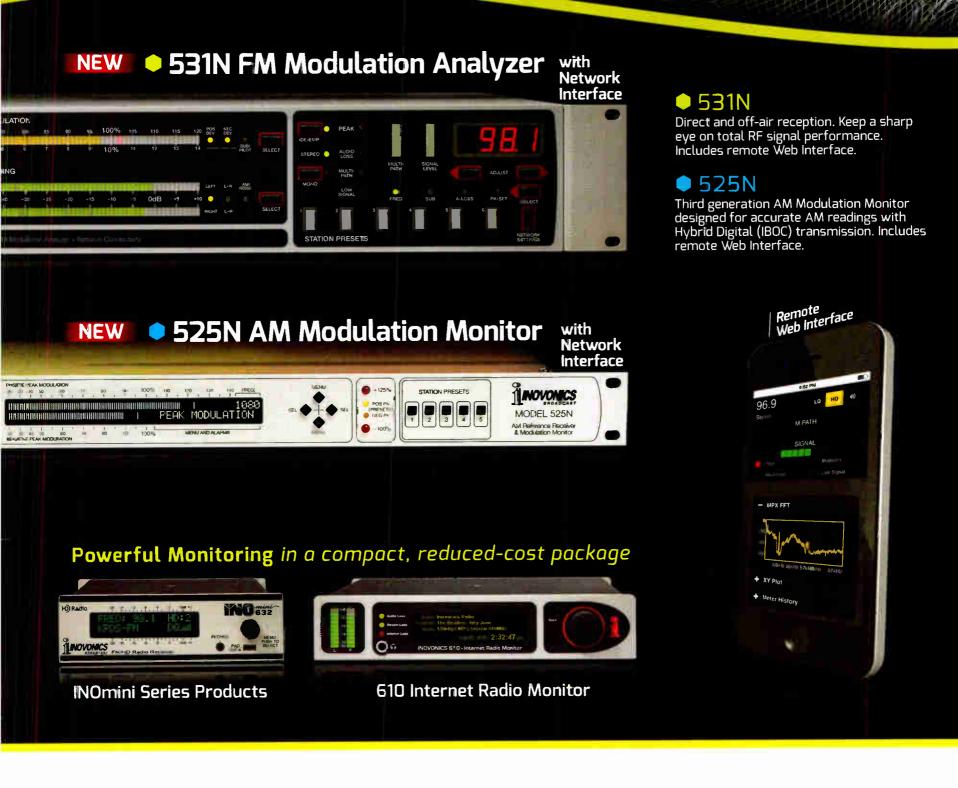
You have good ideas, we're looking for good ideas. Send Workbench tips to johnpbisset@ gmail.com. Fax to (603) 472-4944. Bonus: Tips qualify for SBE recertification credit.

Author John Bisset has spent 46 years in the broadcasting industry. 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.



Fig. 2: Ensure tight set screws on phasor controls.

Inovonics is the ultimate choice for essential radio broadcast signal monitoring. AM | FM | HD | INTERNET RADIO



Why Inovonics?

Quality Solutions. Competitive Prices. | Three-year Factory Warranty. Quick to Install, Easy to Program. | Quality after sales service. www.inovonicsbroadcast.com | sales@inovonicsbroadcast.com | 831-458-0552



No Matter What Flavor Your Format Is, FM-55 Has Your Sweet Spot Covered



FM-55 comes with presets created by our broadcast audio V perfectionists to cover virtually every type of programming. Just a dial it up and instantly your sound gets a sonic face lift – one your se listeners will love. We've engineered FM-55 to make it easy for you e

to craft your on-air sound to be clean, loud, and sweet - no matter

what your format. Like giving candy to a, well, you get the picture...

20

Wanna tweak? We give you a toolbox that lets you get at every parameter in FM-55 to take control and sculpt the finest sound you can - YOUR signature sound. Best part is, FM-55 is exceptionally cost effective/cost competitive – the fastest growing choice in under-\$3K FM processors! Give your listeners pure ear candy – contact us today and get FM-55 for your airchain now.

ROCA

		Nutritio	n Facts		
Intelligent iAGC	Smart Stereo Enhancement	Bass Management System 3.0	Multipath Control	Wheatstone [®] baseband192	WheatNet-IP Compatible
Produces a consistent, spectrally-balanced sound regardless of density variations in incoming source material. Essential for different media formats.	Specialized automatic level and spectral management algorithms provide a wide but extremely stable 'on-air' stereo image.	Circumvents bass- related distortion. Increased depth, feel, and clarity of bass impact without affecting mid and high frequency content.	Mitigates market and terrain-specific multipath behavior, reducing the problem of multipath-triggered receiver-induced stereo blend.	A single AES/EBU cable between the processor and a current solid-state FM transmitter carries the digital baseband signal for exceptionally clean sound.	Control the FM-55 and stream its audio to and from anywhere in the WheatNet-IP audio network.

fm55.wheatstone.com

THE INTELLIGENT NETWORK



IP's a Ten Gallon Hat

It's been said that radio is made up of the same eight people wearing different hats. That could explain a lot about Marc Hill, who has worn the music director hat, the talent hat, and the technology hat in his 30-plus years in broadcasting. More than 20 of those years have been spent acting as the IT Manager for what is now iHeartMedia in West Michigan.

We got to know Marc while working with him on a new Wheatstone WheatNet-IP networked facility for the seven-station cluster. He said he "wandered" into IT in the late '90s when he unwittingly volunteered to install the Prophet/Wizard automation system. He worked the overnight shift at the time, and eventually traded in his talent hat for IT – a ten-gallon nat that now includes streaming, mobile, and, more recently, IP audio networking. He still laments that he gave up his talent gig before he could try out the new automation. "That was kind of unfair because I never even got to use it. I came off the air overnights to install it so someone else could use it," he says.

Read the rest of the story: INN32.wheatstone.com

Your IP Question Answered

Q: I ve been told that WheatNet-IP is the audio network that has integrated control. What does that mean?

A: IP audio isn't just about routing. It's also about being able to control and automate audio. For example, WheatNet-IP has an integrated control layer that carries all the



logic functions for audio. Control is built into each WheatNet-IP connection point that is shared with other IP connection points across the network, giving you access to not only all sources at once, but also the presets and any associated logic that goes along with each feed for controlling such things as mic ONrOFF, or changing remote mic settings for IFB, processing and other parameters. Being able to route audio in tandem with full system control makes a world of difference when it comes to handling the unexpected or repurposing a news set for multiple productions.

For more IP Audio News: INN32.wheatstone.com

Taking The Aura8-IP Beyond Broadcasting

By Scott Johnson

When you think of Wheatstone processing, you naturally think of broadcasting. But if an audio engineer tucked an Aura8-IP under his arm and left the station, would he find other uses for it? The answer, I found out recently, is a resounding yes!

Wheatstone processing gear has myriad applications in the broadcast world. There's almost no corner of a radio facility where a Wheatstone processor can't be of assistance. But we rarely think of what we might be able to do with, say, an Aura&-IP outside the station's doors. I did wonder. There's a big, wide world of audio out there, waiting to be tamed.

Read the rest of the story: INN32.wheatstone.com







SHOW 2016

Management Preview

RADIOWORLD March 16, 2016

Here's an NAB Show Events Sampler

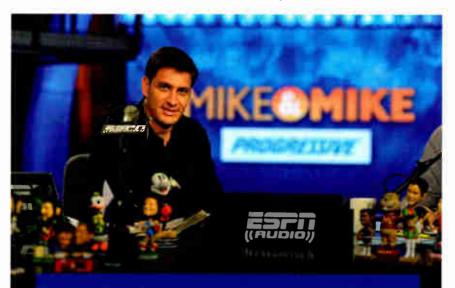
Digital revenue plays an increasing role in both the industry and the show

NAB SHOW

BY PAUL MCLANE

The NAB Show is upon us. Below and in the next several pages we sample special events and sessions focused on business/management topics. Next issue looks at engineering/technical sessions and exhibitor new product listings. Selection below is chronological.

DIGITAL FUTURE - Digital revenue - a phrase typically referring to money not from digital over-the-air broadcasts but from websites, mobile platforms and other non-broadcast sources - remains a much smaller piece of income for radio companies than money from spot and network sources. But the category has grown significantly in recent years and there's little reason to suppose it won't continue. Now NAB Labs, newly rechristened as Pilot, hosts the first Digital Futures Exchange, an all-day event on Sunday aimed at the people responsible for digital revenue at their companies. radio or otherwise. The exchange "is all about bringing together the best of the best for an unscripted, interactive discussion of digital trends, strategies and examples for local markets." Participants are from organizations like Pew Research, the Interactive Advertising Bureau, BIA Kelsey and Local Media Association. - Sunday, April 17, 11 a.m.-7 p.m., LVCC Room S228.



After 16 years of "Mike & Mike," hosts Mike Greenberg and Mike Golic enter the NAB Broadcasting Hall of Fame.





EFFECTIVE MANAGEMENT — The Broadcast Management Conference consists this year of a dozen sessions about essentials of effective radio and TV station management. Session topics include the future of broadcast policy on Capitol Hill; an idea exchange for small and medium-sized radio markets; thriving in radio sales; trends in political advertising: innovative ways to appeal to radio advertisers; and the changing rules in the music licensing space. — *Sunday, April 17–Wednesday, April 20, in North Hall meeting rooms and the Westgate; see on-site program.*

WE LIKE EDUCATED PEOPLE -

The Broadcast Education Association annual convention draws an estimated 1,300 educators and students to 200 sessions, events, research panels, tech-





IF YOU GO

What: "The world's largest electronic media show covering the creation, management and delivery of content across all platforms"

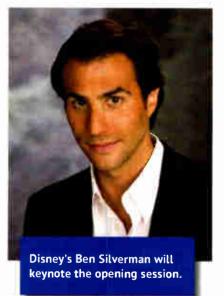
When: April 16-21

Where: Las Vegas Convention Center

Who: 103,000 attendees, 1,700+ exhibitors

How: www.nabshow.com

How Much: Conference Flex Pass \$695. Various packages offered by registration type, with discounts for NAB members, government employees and students



nology workshops and an exhibit hall. The keynote is by Bruce Rosenblum, chairman/CEO of the Academy of Television Arts & Sciences and president of Legendary Television and Digital Media. — Sunday, April 17–Wednesday, April 20. Las Vegas Westgate. **SHOW OPENING** — NAB President/ CEO Gordon Smith gives his annual state of the broadcast industry address: and NAB's Distinguished Service Award winner will be honored. Also, Ben Sherwood, co-chairman of Disney/ Media Networks and president. Disney/ ABC Television Group, gives the keynote. — Monday, April 18, 9 a.m., Westgate Paradise North Ballroom.

EXHIBITS — We'll have details on the booths next issue. Note that radio/ audio booths are concentrated in the North Hall this year (though as always, many of your favorite vendors may be found elsewhere too). The floor opens Monday April 18 at 10 a.m., a later opening first adopted last year. Hours on Tuesday and Wednesday are 9–6, and Thursday 9–2.

RUN FOR A CAUSE — The 4K 4Charity Fun Run benefits Mercy Corps and The Shade Tree. The 4 km (2.49-mile) run "promotes wellness, networking and charitable giving in a fun, casual environment." Radio World's parent NewBay Media is a media sponsor. Register at *nabshow.com.* — *Tuesday*, *April 19*, 7:30 a.m. at Sunset Park near the airport.

ALL ABOUT SERVICE — Fifty finalists are up for the 29th Annual NAB Crystal Radio Awards, recognizing radio stations for their year-round commitment to community service. Winners will be announced and finalists will be honored during the ...

NAB RADIO LUNCHEON — Kim Komando, radio host and Web entrepreneur (and former Radio World columnist), is featured speaker; she hosts a weekly call-in radio show and daily "Digital Minute" focusing on how consumers can integrate advancements in digital technology into their lives; the show airs out of Phoenix. Also: ESPN Radio's popular morning duo Mike Golie and Mike Greenberg will be inducted into NAB Broadcasting Hall of Fame. "Mike & Mike" turns 16 years old this month. — *Tuesday, April 19, 12:30 p.m., Westgate Paradise Ballroom.*



Kim Komando talks about how consumers can integrate advancements in digital technology into their lives.



GET A JOB — The NAB Education Foundation hosts the NAB Show Career Fair. Organizers expect about 1,000 professionals to interact with broadcast and media employers. Co-produced with the Broadcast Education Association. Free to job seekers; anyone can attend. — *Wednesday, April 20, 10 a.m.–3 p.m., Westgate Las Vegas Resort and Casino.*

The convention also features trends well beyond radio that may also be of interest, including drones, cloud technology, startup tech, virtual reality and multiscreen viewing.

Intelligent design.

The STX 10 is the world's first 10 kW transmitter that has been intelligently designed to offer the perfect combination of audio quality, reliability, redundancy, serviceability and efficiency, in an amazingly compact design! No other 10kW transmitter can match the design, feature set, and BE tradition of providing the best value.



Small

19" (48cm) W x 29" (74cm) D x 38.5" (98cm) H. Can fit in any standard 19" EIA rack that is 30" deep!

Efficient

With an efficiency of greater than 70% AC to RF, the STX 10 will save electricity costs beginning immediately and for years to come.

Redundant

All hot-pluggable and hot swappable power amplifier modules and power supplies. There's no reason to take the transmitter off-air to install a spare. Additionally, the STX10 has a redundant cooling system. Allowing it to operate at full power with a fan failure.

Connected

Every unit comes with a superior Graphical User Interface that allows control of the unit remotely.

Serviceable

All important parts and assemblies can be accessed from the front and the rear access points. Making maintenance a breeze!

STX 10



Broadcast Electronics • 4100 North 24th Street • Quincy, Illinois 62305-3606 U.S.A. Telephone: (217) 224-9600 • E-Mail: bdcast@bdcast.com • www.bdcast.com

WTMX: Small Acts of Charity Matter

"The Mix" is honored by NAB with the Crystal Heritage Award

COMMUNITY SERVICE

BY JAMES CARELESS

In 2015, Hubbard Radio's "The Mix" 101.9 in Chicago raised \$1,316,404.55 for the Ann & Robert H. Lurie Children's Hospital, thanks to the station's annual Eric & Kathy Radiothon.

WTMX(FM) morning show hosts Eric Ferguson and Kathy Hart have been running that event for the past 16 years, during which they and WTMX have raised a total of \$27 million for this Chicago hospital. That is a major social contribution by any radio broadcaster's standards.

Hubbard Chicago Market Manager John Gallagher is understandably proud of the radiothon's multi-million dollar fundraising success. But he empha-



From left: Paul Webber, Dave Karwowski, Eric Ferguson, Mary Ellen Kachinske, Teddy Harris, Kathy Hart, Susan Wiencek, Greg Solk, Dianne Sharp and John Gallagher.

COMMUNITY TRADITION

convention.

WTMX's long commitment to social

contributions big and small is why the

National Association of Broadcasters

is presenting the station with the NAB Crystal Heritage Award at the spring

This honor recognizes radio stations

that have won a total of five Crys-

tal Radio Awards for exceptional year-

round community service efforts. The

NAB Crystal Heritage Award will be

presented to WTMX management dur-

ing the NAB Show Radio Luncheon

Tuesday, April 19, in Las Vegas. Only

five other stations have received this

WTMX's charitable efforts go beyond the requirements of marketable public relations.

sizes that much of WTMX's charitable work, while done on a smaller scale, is just as important to the staff and ownership.

"We do a lot of lower-profile fundraisers to help out our listeners; be it for a family who has lost a mother or father, a young cancer patient who needs support in paying for treatment, or someone else who needs financial and human assistance in our listening area," Gallagher said. "Such efforts don't always garner the attention and accolades that a big campaign like the Eric & Kathy Radiothon does, but they matter as much to us." honor since the Crystal Radio Awards were launched almost 30 years ago.

"Winning the Crystal Heritage Award is a great achievement, which I credit to the dedication of our staff and the civic mindedness of Bonneville International and Hubbard Radio, our past and current owners," said Gallagher.

"Both companies have a strong tradition of giving back to the community, which has allowed WTMX's people to keep up their good works, even while going from one owner to another."

THREE PRIORITIES

WTMX's social contributions are guided by three priorities: "Our audience, our brand and our community," Gallagher said. "We do our best to serve all three equally and faithfully in our community efforts."

The station's many charitable campaigns are listed and updated on its Events Web page, *http://wtmx.com/* events.

For example, in February, WTMX was promoting the Anti Cruelty Society's Pour Your Heart Out Fundraiser to help protect animals: the Fox River Shiver polar plunge into the frigid Fox River to benefit Lurie Children's Hospital of Chicago; and the Leprechaun Leap 5K/8K Run to raise money for the Greater Chicago Food Depository. Also on the WTMX Events calendar was the Good Life Race to raise money for the Collaboration for Early Childhood and the Oak Park River Forest Food Pantry; and the Relay for Life cancer fundraiser, among others.

"We're always taking part in something to help the community," Gallagher said.

As part of the Hubbard Chicago group, along with WDRV(FM)/ WWDV(FM) and WSHE(FM), WTMX







The Eric and Kathy Radiothon raised another \$1.3 million this year for a local children's hospital.

encourages local listeners to volunteer in community organizations through Hubbard Radio's Make a Difference page, http://vvf.hubbardradiochicago.com.

"This site is dedicated to helping people in Chicago find great organizations, events and volunteers committed to civic engagement," reads the Make A Difference home page.

"With the help of this site our goal is simple ... to help everyone find a great place to volunteer and rely on the generosity of people like you to help transform people's passion into action. Take a few minutes, look around and know that donating a little time can mean a lot!"

TOP-DOWN

While visible community service is a part of the repertoire of many radio stations, "What makes WTMX and our other Hubbard Radio stations different is that top management is actively and strongly supportive of these efforts," said Gallagher. "It isn't just a matter of our on-air staff doing their own charitable activities in isolation. The company

SPECIAL HONORS

The following stations are past recipients of the NAB Crystal Heritage Award.

2015

WLEN(FM), Adrian, Mich. 2014, 2010, 2005, 2001, 1998

2013

KNOM(AM/FM), Nome, Alaska 2012, 2005, 2003, 2000, 1987

2012

KUZZ(AM/FM), Bakersfield, Calif. 2011, 2008, 2006, 2001, 1998

2011

KBHP(FM), Bemidji, Minn. 2010, 2007, 1999, 1997, 1994

2008

WUSL(FM), Philadelphia 2007, 2001, 1998, 1996, 1993 backs them up with human and monetary resources to help them make things happen. We all work together to make Chicago better."

This active corporate commitment to good works is something he attributes to the values of mid-sized broadcast groups such as Bonneville and Hubbard. "Although the biggest groups do what

they can, they are so big that they sometimes become distant from the communities they broadcast to," Gallagher said. "In contrast, we have never lost touch with what we stand for, and the people that we serve."

GOOD FOR BUSINESS

WTMX has been nominated for the Crystal Award 12 times.

Apparently Chicagoans and local advertisers approve of WTMX's efforts as much as they like its hot adult contemporary music format. The station rated third in the Chicago market in listeners 6+ in January, behind WBBM(AM), all news, and WVAZ(FM), urban AC. Meanwhile, Chicago media watcher Robert Feder has reported on www. robertfeder.com that WTMX earned \$31.9 million in 2015 ad revenues, up from \$30.9 million the year

hefore.

There is no doubt that visible community service is good for business when you're a local radio station. But WTMX's charitable efforts go beyond the requirements of marketable public relations; especially considering that so much of what station staff does is unsung in the press.

"WTMX's heart and soul is truly committed to the city of Chicago," said John Gallagher. "This is why I am so pleased that our people's efforts are being recognized by the NAB Crystal Heritage Award."



1-800-438-6040 info@scmsinc.com

Broadcast Equipment Solutions





Time Is Money for Radio Stations

Laderer talks about why innovations such as cloud-based workflow software matter

RADIO MANAGEMENT

BY MICHAEL BALDERSTON

In 2005. Jinny Laderer was working as the creative services director at Renda Broadcasting, where she collaborated with sales reps and managers at multiple radio stations on ad campaigns. However, she was frustrated by inefficiencies of the systems and processes with which she had to deal daily and about which she would vent to her husband, John, kept her from coming home on time.

In an effort to solve this, John, a government software programmer, wrote a Web-based software program that helped Laderer combine some of her work and enable her to get home on time. According to Laderer, this was the beginning of vCreative, a software company she went on to co-found with her husband with the ultimate goal of providing people and companies with more time.

Laderer now is the president of vCreative, which has been providing workflow management systems to the radio and other media industries since 2008. She says vCreative came along just as the cloud-based storage movement began and has been a big proponent of the technology. Eight years later, being in the cloud is almost a prerequisite for new technologies. "In 2008 when we launched, our biggest objection for the reason they [companies] didn't want to use our software was we were cloud-based and the Internet was not always reliable, and they were afraid to do business online," said Laderer. "Fast forward to today, you can't even imagine somebody ever saying that."

PANEL PREVIEW

The advantages of cloud-based systems will be featured in Laderer's upcoming panel. "In-station Innovations That Save and Make Radio Money." at the NAB Show. Her specific message addresses how these systems and other innovations can be integrated to provide more time to workers, which in turn can result in generating more revenue.

"There are a lot of inefficiencies that happen internally ever day at a radio station that cause their employees to spin their wheels." said Laderer. "Time is the most valuable asset we have. We want to make the most of every single moment that we have our employees working for us.

"So if they are spinning their wheels all day long with inefficient tasks ... then there is this disconnect and what happens is they lost all of those hours. Those hours translate into being more productive, being more creative, and putting more money on the bottom line."



PRODUCTS & SERVICES SHOWCASE





For more details, call Michele Inderrieden at 212-378-0400 ext. 523 or email: minderrieden@nbmedia.com

The way to reduce inefficiencies is by integrating the different systems used by radio stations, according to Laderer. For example, better integrating traffic, workflow management and automation systems may eliminate the need to log information into three or four different systems, potentially allowing for easier communication and fewer errors.

REVENUE

Speaking about how this could help raise revenue at stations, Laderer talks of her personal experience working as a creative services director. She says eliminating some of these inefficiencies freed sales people to be more creative and spend more time with clients to meet their needs.

Time is the most valuable asset we have. We want to make the most of every single moment that we have our employees working for us.

- Jinny Laderer

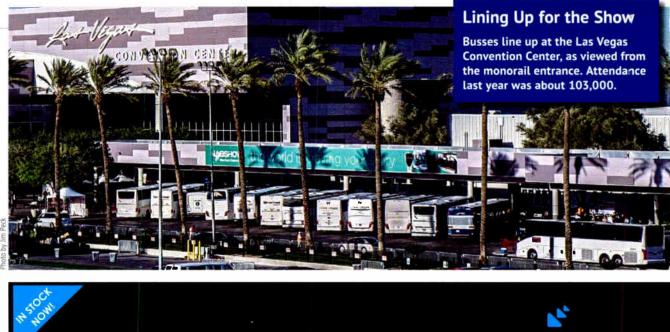
"I spent so much time shuffling paper work and trying to get organized during the day, I just needed more time to generate more income for the company with great creative."

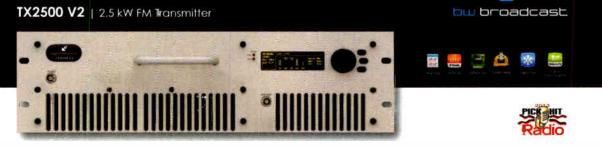
Laderer recognizes that some stations are in a better position than others to take advantage of this and that smaller-market stations have particular challenges. She stresses that they should start asking questions about "where are they losing time, where are they spinning their wheels, where are the communications breakdowns that are maybe causing lost revenue, or lost opportunities, or the loss of time for creativity."

Radio stations today generally operate with fewer staff, so each employee typically has more responsibility. When it comes to saving and making money, Laderer believes that it's those employees who are still among a station's greatest asset. So it is important that stations invest in tools that will help employees thrive in this new work environment.

Workflow environments are "going to be extremely streamlined within the next several years," she predicts.

"In-Station Innovations That Save and Make Radio Money" is part of the Broadcast Management Conference. It will take place Tuesday, April 19, during the 2016 NAB Show.





We've 'upped' the power to 2500W Take a look at what you get for the money!!

FEATURES*	BWBroadcast TX2500 V2	DB Electtronica Mozart 2000	Crown FM2K	RVR TEX2500LCD	Elenos ETG2000	SielCo TX2500GT
Power	2.5kW	2kW	21:W	2.5kW		2.5kW
Muti-band audio processing	1	×	OPTION	×	×	×
Quick change parts	1					×
Ethernet Control	1	OPTION	×	OPTION	OPTION	OPTION
Te emetry/GPIO	1	OFTION	×	OPTION	OFTION	OPTION
LIST PRICE	\$ 11,495	\$ 12.150	\$ 15.495	\$15.950	\$ 16,780	\$ 20.250

Prices and features found on theinternet 22/16/2014

SAVE \$\$\$ - GET 'COMPETITION CRUSHING' SOUND BUILT-IN!

Sit book smuggly knowing everyone's impressed by your stations ormazing sound quality and loudness. It feels ever better when you know it hasn't cost you a penny. The built-in audio processor gives sounds so great, no one would guess you weren't running a separate audio processo.

"We couldn't be happiert EVERYONE noticed the improvement in our air-sound"

SOLVE PROBLEMS QUICKLY WITH IT'S UNIQUE MAINTENANCE FEATURES.

The V2 transmitter features minimize

equipment problems and maximize the ease in which they can be fixed

"Buying your transmitter wa: a great decision on my partt!! You're making me look smart for going BW Broadcast!!!"

Quick-change parts will have you back on air in minutes!

Power supplies and transistors can be changed in minutes, you don't need to be an expert, or need any tools



xcept a screwdriver! A unique eature that takes the stress and cos out of on-site repairs.

Relax, you're in total control.

Intelligent email alarms: SNMP. UDP and local SD card logging keep you updated with how the transmitter is doing. You can monitor and control it remotely using any web browser fram wherever you are, to avert disaster before it happens!

www.scmsinc.com 1-800-438-6040 info@scmsinc.com

🔇 BUYER'S GUIDE

Transmitters

Alaskan FM Station Powers Up With GatesAir

Preassembled with enclosure, Flexiva transmitter solves problems

BATE

USERREPORT

BY THOMAS BOHNET **Chief Engineer** Tanana Valley Television and Radio

FAIRBANKS, ALASKA — Since our beginnings as a small local broadcaster, Tanana Valley Television and Radio has experienced significant growth over the past several years. This includes the addition of three radio stations, including KNLT(FM), a 10 kW station located approximately 300 miles south in the town of Palmer.

KNLT was a greenfield site, and we aimed to procure as much equipment as possible from a single supplier. Given the transmitter site's remote location, we required a reliable and efficient transmitter that would minimize maintenance, operating costs and site visits. Upon evaluation, all signs pointed to GatesAir as the ideal option for KNLT.

PREPACKAGED

Initially, KNLT launched as a 1 kW station. Faced with a tight timeline, GatesAir delivered a fully equipped, weather-insulated outdoor enclosure that eliminated the need to engage an integrator. The preassembled enclosure was outfitted with a Flexiva transmitter, antenna and all required RF, EAS, cooling, electrical and support gear. The system was ready for air in a day, with a GatesAir IP Link codec feeding program audio to the transmitter from Fairbanks.

We were later approved for a power increase to 10 kW, and engaged with GatesAir for delivery of a higher-power Flexiva FAX air-cooled transmitter. Again, GatesAir delivered a turnkey RF system with a Shively antenna, transmission line, hard line and transmission support gear. We additionally purchased a GatesAir Oasis analog console and a second IP Link for a new local studio, With an IP Link at both the local studio and in Fairbanks, we have incredible flexibility in switching program feeds for delivery to the Flexiva as needed.

Installation was simple and efficient. Beyond cutting the hard line and installing a new transmission enclosure to accommodate the larger transmitter, there was little work to do. We slid the power supplies and amplifiers into position,

and had a local electrician run power to the new enclosure and transmitter. We hooked up the transmitter to a dummy load for testing, and everything worked great right off the bat.

The interior design is modular, which means minimal labor. Hot-swappable amplifiers and power supplies make the Flexiva simple to maintain. As an experiment, I pulled an amplifier and power supply shortly after putting the transmitter on the air. The Flexiva responded as advertised, maintaining most of its power. The power is reduced proportionally with each module failure, instead of being reduced to half or less of its power.

The benefit of this modularity is that I can dispatch

a local contractor to quickly replace a power amplifier or supply, instead of traveling to the site myself. That reliability and maintenance efficiency significantly lowers our operating costs over the life of the transmitter. Our goal is to replace our one remaining tube transmitter eventually with a Flexiva to eliminate the extensive labor and cooling costs associated with tubes.

The Flexiva design includes the GatesAir FAX exciter and a built-in Orban Optimod for audio processing. The Optimod makes excellent use of all available modulation and the exciter is stable, which means I am rarely concerned about signal performance. Using its built-in IP features, we use Burk remote control gear to monitor via SNMP, and connect to the built-in GUI via IP when a closer look is needed. This provides complete transparency, allowing me to drill down to a variety of readings from any location; and providing the freedom to reconfigure settings as needed.

GatesAir has turned into one our preferred suppliers. In addition to supplying most of the key transmission, STL and studio gear to power KNLT, we have additionally installed Maxiva VAX VHF digital TV transmitters for two of our TV stations. With a similar design to Flexiva, the Maxivas provide the same modularity and operational efficiencies. And while power savings are less pronounced with the Flexiva due to KNLT's analog-only status, the Maxiva DTV transmitters have slashed our power consumption by nearly 66 percent to approximately one-third the cost of our older transmitters of another brand, drastically lowering our monthly electric bill. We are very pleased with both the performance and anticipated ROI of our GatesAir transmitters.

For information, contact Keith Adams at GatesAir in Ohio at (513) 459-3447 or visit www.gatesair.com.

TECHUPDATE BEXT DELIVERS XL 6000 COMPACT FM TRANSMITTER

Bext's XL 6000 is the latest compact FM solid-state transmitter in the company's XL Series line of broadcast equipment. In a height of four rack spaces it offers 6 kW of power.

The company says reliability in challenging environments is ensured by use of the latest generation of rugged MOSFETS.



Like other Bext transmitters, the XL Series offers energy efficiency, with minimal heat generated by the unit.

The transmitter's menu can be navigated through the touchscreen on the front or remotely through a LAN/Web IP connection. Standard contact closures for olderstyle remote control systems are provided.

In addition to standard analog audio inputs and AES-EBU digital audio inputs, streaming audio can be fed to the unit. The firmware can switch to a secondary, alternate audio source if the primary incoming audio feed fails. The transmitter can be powered by single- or three-phase AC power.

The user manual is stored in digital format inside the transmitter, and can be accessed using a laptop connected to the transmitter through a USB port on the front. This function is active even when the transmitter is not operating and/or disconnected from the power line.

Available options include digital direct-to-channel FM carrier generation, built-in stereo generator and RDS generator.

The XL 6000 is frequency agile, locally or remotely.

For information, contact Bext in California at (888) 239-8462 or visit www. bext.com.



BUYER'S GUIDE

TECHUPDATES

WORLDCAST'S ECRESO TO SHOW NEW TRANSMITTER AT NAB SHOW

WorldCast Systems plans to unveil a new high-power transmitter at the NAB Show.

The company says that the Ecreso FM 10 kW is based around a digital FM modulator that enables excellent audio purity and hosts a range of useful



features such as audio backup, RDS and stereo encoding and an FM limiter with MPX power control. It emphasizes the model's reliability, redundancy and overall efficiency.

The power amplifiers, power supplies and the fan modules are hot-swappable and redundant. A passive six-way coupler and built-in dummy loads ensure that, should one of the six amplifiers suffer a fault, the transmitter can stay on-air at 9 kW until the fault is rectified.

Efficient, self-monitoring power supplies and a new planar design contribute to an overall transmitter system efficiency of up to 76 percent, the highest available in the FM broadcast market, according to the company.

WorldCast Systems has designed a new architecture for the 10 kW system that ensures ease of access, use and ease maintenance. The Ecreso FM 10 kW can also be supplied with a warranty of up to 10 years, the company says.

The Ecreso FM 10 kW transmitter will be showcased at the WorldCast Systems' NAB booth, N6134.

For information, contact WorldCast Systems in Florida at (305) 249-3110 or visit www.worldcastsystems.com.



BW BROADCAST OFFERS ALL-IN-ONE TRANSLATORS

BW Broadcast thinks that one box is better than two. Instead of a receiver and a transmitter, why not combine them into one unit?

It offers the TR300 V2 and TR600 V2 translators. The company says that courtesy of a built-in DSP receiver the TR300 V2 and TR600 V2 pulls in weak signals. A modulator with very low distortion means the signal rebroadcasts with clarity, even at challenging translator sites, it adds.

It can also be used as a standalone transmitter, with analog, digital and MPX inputs, built-in four-band DSP audio processor and stereo generator.

Intelligent email alarms, SNMP, Telnet, UDP and local SD card logging keep users informed while a remote control app allows for remote access and control from wherever a connection can be established.

Quick-change parts such as dual hot-swappable slide-in power supplies keep the TR300 V2 and TR600 V2 on the air while allowing engineering personnel to change parts quickly without powering down the translator or requiring tools. Units have fault detection/protection for temperature and VSWR.

An intuitive menu system navigated through the front display makes setup easy.

BW Broadcast says that its products are designed by engineers with over 20 years' experience, manufactured and rigorously tested in the U.K. Full 24/7 technical support, free software upgrades for life and a two-year warranty are included.

For information, contact BW Broadcast at (888) 866-1612 or visit www.bwbroadcast.com.

ADVANCED DIGITAL BROADCASTING WITH TRANSRADIO TRAM LINE AND DMOD3

Operated with the optional DMOD3 DRM exciter, Transradio says its TRAM line medium- and longwave models are reliable and field-proven DRM transmitters. Because they are prepared for DRM operation, the exciter can be added to the transmitter at a later date.

In combination with a TRAM transmitter, the DMOD3 offers automated functions to pre-equalize the signal in order to reduce out-of-band emissions. In this case, equalizer adjustment can be performed automatically by



pushing a button.

The DMOD3 autoadjust of the equalizer offers automatic initial equalizer adjustment; equalizer optimization during DRM operation; and adaptive equalization and optimization of crucial parameters

like time delay, DC offset and envelope frequency response.

Transradio's Digital Power Enhancement feature applies sophisticated signal processing algorithms, reducing the crest factor of the DRM signal in the digital domain while the peak level stays the same, enabling higher average power.

Thanks to Transradio's equalizer adjustment and DPE technique, Transradio says, the transmitters offer DRM power typically equal to 80 percent of the AM carrier power with MER >30 dB and signal quality parameters as per ETSI EN 302 245. This allows the operator to benefit from energy savings while offering the best possible broadcasting coverage in digital mode.

For information, contact Transradio in Germany at 011-49-30-339-78-501 or visit www.transradio.de.

Going to NAB 2016? Meet Us!

FM TRANSMITTERS



from 150W to 60 kW



Exhibits April 18 - 21 2016 Las Vegas, NV USA

BROADCAST EQUIPMENT EXCHANGE

Submit your listings to: minderrieden@nbmedia.com



TRANSMITTERS/EXCITERS/TRANSLATORS

TRANSCOM CORPORATION Serving the Broadcast Industry Since 1978 Transmitters and Broadcast Equipment for Radio & Television

		Used FM Transmitters
55W	2000	Harris DIGIT CD
Tri-Mode HD	2006	Harris Digital Z6HD, solid-state
3.5 KW	2000	Harris Z3.5CD, solid-state
5 KW	1995	Harris HT5CD
5 KW	1992	BE FM5B
10 KW	1 9 98	Harris Z10CD, solid state
10 KW	2002	Harris Z10CD, solid-state
20 KW	2002	Harris ZD20CD, solid-state
25 KW	1982	Harris FM25K
27.5KW	1989	Continental 816R-4B, New CE SS IPA
30 KW	1988	Harris FM3

Used AM Transmitters

10 KW1998Nautel ND10, solid-state10 kW2001Nautel XL12, solid-state

Exciters & Miscellaneous Equipment Exciters->DIGIT, CE802B. BE FX50 Bird Model 8932, 10 kW air-cooled RF Load Harris N + 1 Controller

> Used TV Transmitters DTV & ATV • FLO TV Transmitters • • • • • Rohde & Schwarz • • Harris Maxiva

Please visit our website, www.fmamtv.com, for additional listings.



Continental Electronics



CLOMU BLOADCAST

ew TV Transmitters- DTV & ATV OMB, Rohde & Schwarz and Technalogix **1KW Special w/4 channel encoder**

New TV Transmitters- Analog and Digital OMB, Rohde & Schwarz and Technalogix VHF and UHF TV Antennas (10 W to 10 KW) TV STL

800-441-8454 • 215-938-7304 • FAX: +1-215-938-7361

www.fmamtv.com • E-mail: transcom@fmamtv.com RETUNING & TESTING AVAILABLE • CALL US FOR A QUOTE!



POSITIONS WANTED

Are you a small market station needing a good nuts & bolts engineer in the Los Angeles area? I will make your station shine! CET, fully FCC Licensed. Available for Full/Parttime/Contract work. Available immediately. Mitchell Rakoff, 909-446-6820, mitchellrakoff@ yahoo.com.

Well rounded music connoisseur, with a funny fresh different kind of on-air attitude that will excite the listeners everyday. Absmichael0711@yahoo.com or 609-742-1120.

Experienced radio station manager seeks new management opportunity. More than 39 years experience in radio. Willing to relocate. Family-friendly format(s) preferred. Send details about your management opening to: radiogm@ hotmail.com. Extremely knowledgeable and articulate racing writer/talk show host Adam Amick is available for shows, correspondent, features, etc. Check out www.bleacherreport.com for samples. Call 214-384-5812 or email: adam@ rubbinsracingshow.com.

Driven internet broadcaster with solid production skills, seeking work at your station! Passion for business, prep, and talent. Derek, 320-552-3051 or 320-833-0143 or starkderek@ hotmail.com.

Professional, energetic, disciplined Programming, VO or Production savvy. Military vet, worldly with experience in life/ the entertainment business. Not intimidated. Boz, basil_dubose2000@yahoo.com or 972-762-1421.



WANT TO SELL

Translator available for Washington State, Oregon and Oklahoma area. 831-392-6901.

BEXT XL3500 3.5kw compact, self-contained, solid state, all-in-one, high-efficiency transmitter. Four rack-spaces high, XLR, AES-EBU audio inputs. Single or three-phase power. kjzafm@yahoo.com or 928-848-1693.



...and so are the potential buyers for your products and services.

Radio World's Classifieds section is a great place to find things for your business, and a great place for prospects to find you!

> Contact Michele at 212-378-0400 ext. 523 or email minderrieden@nbmedia.com



Call Michele at 212-378-0400 x 523

or email: minderrieden@nbmedia.com

RADIOWORLD March 16, 2016

📽 OPINION

Talkback: Readers Have Their Say

The following comments were posted to radioworld.com in response to stories that appeared on the website or in print.

RADIO AD SALES

About "U.S. Radio Revenue: \$17.4 Biliion, Down 1% Last Year," in which Radio Advertising Eureau President Erica Farber was quoted saying the latest sales data provide evidence that advertiser commitment to radio remains consistent:

"Despite data showing the opposite, she continues [by saying] clients 'will find money to try out shiny new vehicles, but they continue to rely on radio's core ability to reach huge numbers of consumers and motivate them to buy products and services.' Digital media is no longer 'shiny.' It's been maturing for over a decade, and clients are relying on its accountability now more than ever."

PAINFUL RATES

About "Small Webcasters Squeezed by Music Rate Increase"

"We were preparing to go live with our new Internet radio station ... in January with a shoestring budget. We had a nominal fundraiser to get going and had budgeted \$500 for licensing fees. Much to our dismay, the royalty rates swelled so much (a minimum of \$1,700 to start, plus 17¢/100 songs) that we had to scrap our plans and are in a holding pattern, hoping for congressional action."



PIRATE PROBLEMS

About an FCC pirate radio advisory, reported in the story "FCC Rattles Sword Against Pirate Operations":

"What a load of crap!

'Turning point.' Seriously? What we need is a special prosecutor and FCC field agents with search and seizure warrants and then the pirate problem will get solved, one overnight equipment seizure at a time."



"I would be in favor of privatizing

the enforcement division with private contractors. Enforcement could not only be an expense for the FCC, it could become a PROFIT center!"

"In most cases legal Part 15 broadcasters are just as anxious to stop the pirate operations as the FCC, but when the FCC goes on a rampage about stopping pirates and starts using scare tactics on regular folk who know nothing about pirate vs. legal Part 15 radio it is not good for anyone."

EXPANDED BAND

About "A Tale of Three X-Band Stations," which stated that in 1993, the FCC authorized extension of the AM band to include 1605 to 1705 kHz, "adding 10 more broadcasting slots":



"Was it really nine new broadcasting slots, since there's no 1610?"

[Ed. Note: Ten channels were added, but stations have been kept off of 1610 — according to one AM observer, to protect Traveler's Information Services.]

About "Expanded Band Owner Objects to AM Surrender Plan":

"Letting them keep both stations is not fair! They were given a full-time radio station for free – one that I would have LOVED to have had the chance to apply for! Now they want to have their cake and eat it too? NO!! They knew the deal going in and no one forced this upon them. I know one guy who sold his EX band station for MILLIONS and still runs his original station! How come I can't get a deal like that?"

How Does AES70 Fit in the Studio? Think MIDI

AES70 defines a scalable control-protocol architecture in three parts

COMMENTARY

BY DEE MCVICKER

The author is a spokesperson for Wheatstone, which was part of the AES X210 task force responsible for developing AES70.

IP audio network manufacturers have gone all out to develop complete studio environments, some of which include everything from control surfaces and talent stations to button panels and widget GUIs to specialty I/O devices and processors.

These systems are the backbone of the broadcast operation today because they provide complete control

Without a control standard, manufacturers have been limited in their ability to offer inter-platform audio network interoperability.

and access of networked audio and gear in one seamless environment. By building upon their respective audio network environments, manufacturers have been able to expand on AoIP capabilities and lower the cost of operation in many cases.

Integrating other devices and networks beyond their own network environment, however, typically called for customized solutions.

Then AES67 came along and provided a transport standard that all audio network manufacturers could

he News Source for Radio Manag

Our readers have

Steve K Mission Elect Custom Elect Las Vegas



use to bring audio in and out of their networks. It is now more than two years since AES67 was ratified, and the standard is gaining traction. It is available in most of the popular IP audio networks and just recently, AES67 was adopted as part of the TR-03 recommendation for HD-SDI-to-IP transition by the Video Services Forum (VSF).

Still, without a control standard, manufacturers have been limited in their ability to offer inter-platform audio network interoperability.

AES70

Now another standard has come along: AES70, which was ratified into existence earlier this year by the Audio Engineering Society Standards Committee (AESSC) as a rudimentary control standard for audio IP networking.

AES70 defines a scalable control-protocol architecture in three parts: a mechanism framework, a control class structure and a protocol implementation for TCP/IP networks. (For more information, check out the newly published AES70-2015 standard for audio applications of networks - Open Control Architecture at http://tinyurl.com/rw-aes-70.)

It is based on the Open Control Architecture (http:// ocaalliance.com/), which is essentially a library of specific control functions such as ON/OFF, level control, and similar functions that can facilitate control between third-party devices and an existing network environment.

> Whereas AES67 gave us a means to move audio signals from point A to point B regardless of audio network brand, AES70 now promises to give us a standard that will allow interoperable control between thirdparty devices and elements of existing audio networks.

FACILITATING CONTROL

So, what does this mean to the seamless audio network environment broadcasters have come to rely on today?

First, AES70 will not be adopted overnight. As with all standards, it will take some time before AES70 can be integrated into the studio environment as it is implemented and tested in real world scenarios. And it won't supplant existing audio IP networks, which will continue to function as complete operating environments into the future. AES70 doesn't change that. What it does is add the ability to connect certain devices to those systems and provides some basic control between them.

Think of AES70 as the MIDI of broadcasting. Just as MIDI was developed as a standard by the music industry to communicate how electronic instruments such as sequencers, keyboards, and processors can control each other, AES70 was developed by audio professionals to communicate basic commands and logic among devices and digital tools in a typical studio environment.

The immediate goal in bringing about this standard is to provide users the means to facilitate control between third-party equipment and existing audio networks, which, when coupled with AES67, should offer greater studio interoperability.

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

www.wheatstone.com

fracturers could ocaalliance.com	i/), which is essent	tially a library of nbmedia.com.	
OPLD	ADVERTISE	ER INDEX	i listing is provided for the convenience of our readers. Radio World assumes no liability for inaccuracy.
UKLU	PAGE	ADVERTISER	WEBSITE/URL
rs and Engineers	25	305 Broadcast	www.305broadcast.com
something to say:	13	Arrakis Systems Inc.	www.arrakis-systems.com
	22	Bext, Inc	www.bext.com
	19	Broadcast Electronics	www.bdcast.com
Workbench is decidedly	4	Burk Technology	www.burk.com
my favorite. There are	23	BW Broadcast	www.bwbroadcast.com
always little gems of	7	Comrex Corporation	www.comrex.com
helpful suggestions; and it	20	Deva Broadcast Ltd	www.devabroadcast.com
promotes the camaraderie	12	GatesAir	www.gatesair.com
among engineers. 77	30	Heil Sound, Ltd.	www.heilsound.com
among engineers.	15	Inevenics Inc	www.inovonicsbroadcast.com
	5	Lightner Electronics	www.lightnerelectronics.com
eating	1	Lagitek	www.logitekaudio.com
ctronics Corp. of Nevada ctronics Engineering	31	National Association of Broadcasters	www.nabshow.com
	9	Nautel Ltd.	www.nautel.com
	11, 21	SCMS	www.scmsinc.com
WAW THISOUND CCT			

Wheatstone Corporation



2, 16-17, 32

🕦 Open or download your QR scanner app. 🛛 2 Scanthe code — unleash the experience.

PRI VEGAS, NV USA NABShow.com #NABShow register today

Free Exhibits Pass Code PA109

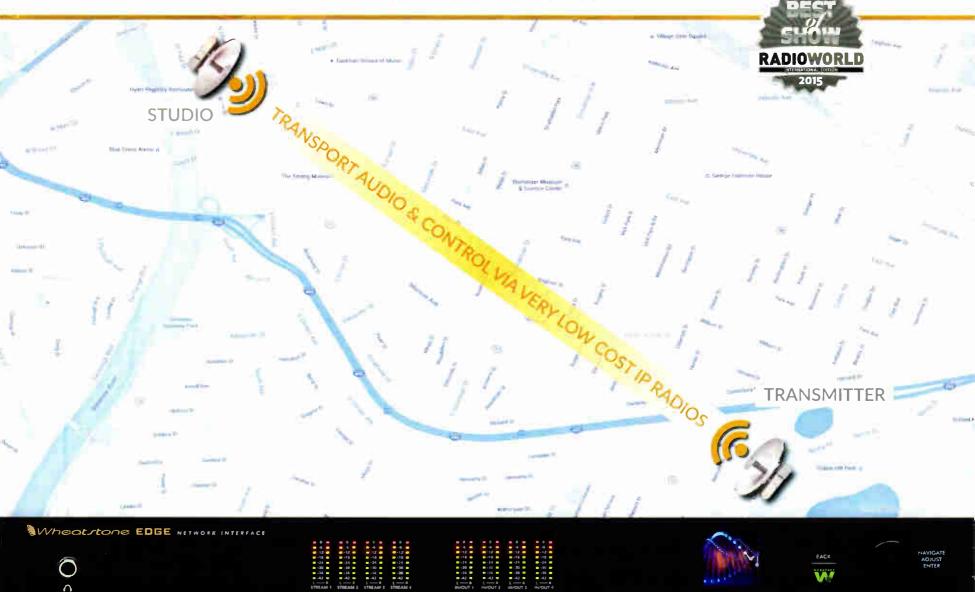
reimagine the expanding role of radio in media and entertainment. Understand how all of this impacts your station operations. NAB Show® is the only place to break free from conventional thinking and open your mind to new technology, new programming, new sales tools and fresh perspectives. The sky's the limit, and the only thing you have to ask yourself is: how far will I go? THIS CHANGES EVERYTHING.

connected technologies • new listeners • fresh programming The radio industry has become unleashed. Dynamic innovation and cutting-edge technologies are shattering the boundaries of broadcast and opening up limitless opportunities. Elevate your knowledge of connected technologies fueling anytime-anywhere media, from live and local to archived and global. Immerse yourself in ways to grow listeners and leverage grounds minine service service ways to grow therefore and tever age redefined revenue streams. Collaborate with industry experts to

<u>easn</u>

where Content Comes to Life





Enables Advanced Inter-Studio Communications Over Inexpensive IP Radio Connections

Network EDGE is designed specifically as a translator to enable intelligent bi-directional multi-channel communication between high-quality, low-latency studio networks such as WheatNet-IP and low-bandwidth STL connectivity options such as very low cost third-party IP wireless radios. When used within the WheatNet-IP system, with a Network EDGE at one end and a BLADE at the other, the result is a world of possibilities based on BLADE I/O functionality such as silence detection, clip player, logic for automation, mixing, processor control, and so much more.



COST EFFECTIVE TRANSMISSION + INTELLIGENT NETWORKING = SMARTER STLS, REMOTES, LINKS & MORE

edge.wheatstone.com

SEE US AT NAB BOOTH N2530



phone 1.252.638-7000 | wheatstone.com | sales@wheatstone.com World Radio History