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RT+ Needs Vendor, Station Support

More Stations Abroad Than in the United States Back RT+

BY ALAN JURISON

In the March 1 issue we dug into some of the technical details of RT+ for engineers.

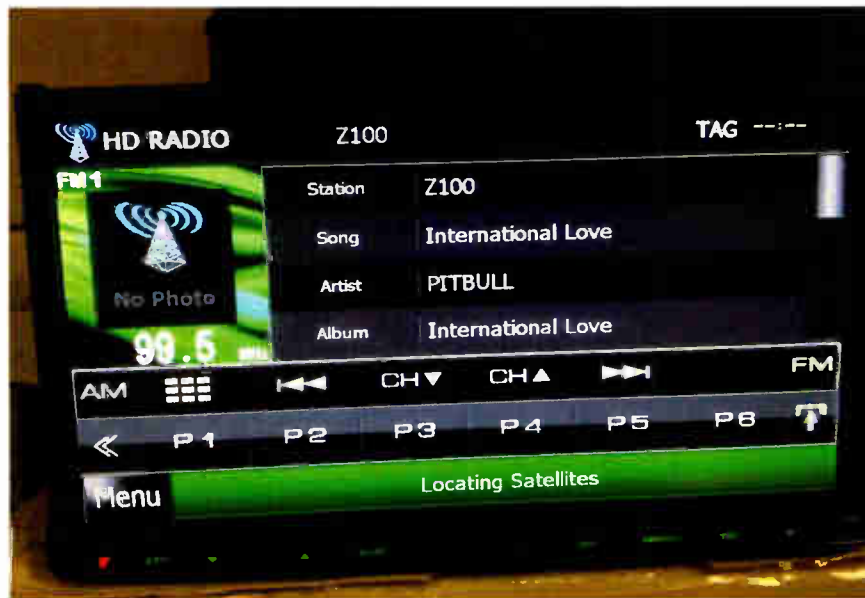
RADIODATA

RT+ is an additive data stream you can add to your RDS encoding that identifies the text that you are encoding in your RadioText (RT). The RT is a 64-character description that you can change anytime.

Now, let's discuss RT+ broadcaster and vendor support.

BROADCASTER SUPPORT

Unfortunately, broadcaster support for RT+ in the United States has been lacking. While several major broadcasting corporations have implemented RT+ on some of their FM stations, there are still



A Kenwood DNX7190HD navigation receiver on the author's workbench displays RT+ for New York station WHTZ(FM), 'Z100.'



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many in the United States that do not encode with RT+. I attribute this primarily to its relatively recent introduction in this country, little understanding among the broadcast engineering community on how it works, lack of communication of what the standard entails and the relative lack of RDS products that support RT+.

I think the RT+ standard holds great promise for our industry, and unlike other recent technological improvements, this standard is supported by actual popular receivers on the marketplace. We all know that analog FM broadcasting will be with us for many years.

If you do not already have RDS on your station, you should consider getting it. If you have RDS, you should consider exploring ways to add RT+ to your existing RDS data stream. That, coupled with the royalty-free open standard nature of the RT+ specification, means this should be a low-cost, one-time investment to your station.

If more broadcasters add RDS and

RT+ support, I think more receivers will come to market with support for the standards. RT+ is a natural fit for inclusion with portable FM radios, MP3 players, desktop, mobile receivers and the more advanced car entertainment centers.

In the past few years, several RT+ receivers have come to market in the United States. Most notably is Apple's implementation of an FM tuner with RDS and RT+ support in its fifth-, sixth- and seventh-generation Nano players. Kenwood has supported RT+ on various FM receivers with RDS since 2007, including 18 models for 2012. The discontinued Microsoft Zune product line also supported RT+.

If broadcasters rapidly start implementing RT+ on their stations, receiver manufacturers will have an incentive to include this in future designs.

A CALL TO ACTION

As I mentioned, part of the reason why RT+ has not been fully adopted

yet is the lack of public information and discussion of the standard in the United States. I have not seen a comprehensive overview of RDS and RT+. I hope that my articles on this topic have given everyone a basic understanding of the concepts required for RT+ tagging.

In order for this standard to be successful, it requires cooperation of station owners as well as automation system, third-party software and RDS encoder manufacturers.

When this standard was introduced in 2005, there wasn't a single RDS encoder that offered integrated RT+ support. You needed to implement a combination of software/hardware in the middle to create the RT+ RDS ODA packets and send them to your RDS encoder.

To my knowledge, one of the first products on the market to do this was Jump2Go's JumpGate. This was released in April 2008; it works with multiple automation systems and virtually any

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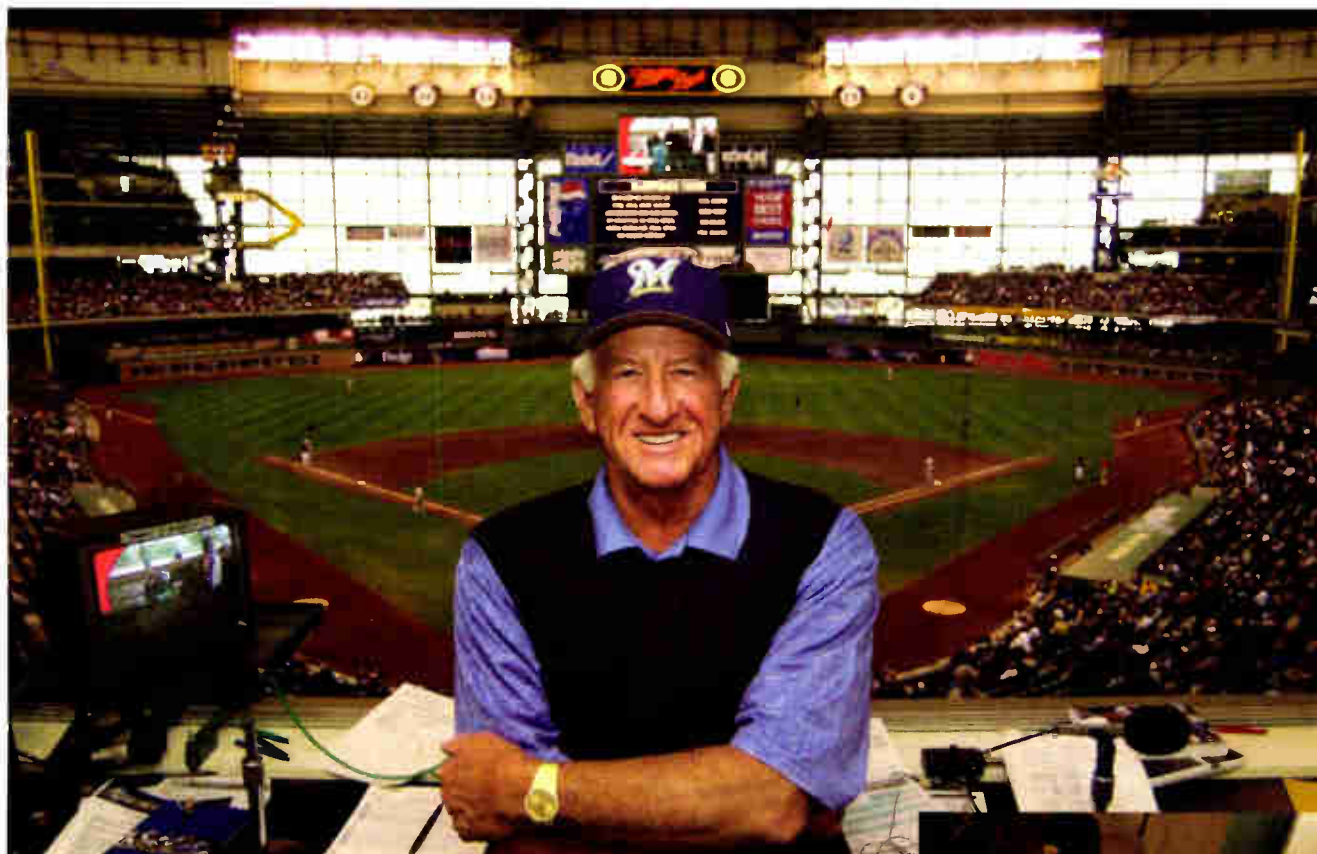
His Front-Row Seat Has a Microphone

In Radio, Bob Uecker Says, 'You're Part of the Family Every Day'

FROM THE
EDITOR



Paul McLane



Photos courtesy Milwaukee Brewers Baseball Club

When Bob Uecker dons a headset and turns on his microphone, you know certain things are about to resonate through your earbuds: Affability. Self-deprecating humor. That rich, familiar voice.

What you won't hear much is criticism of ballplayers.

"I'm not one to take players to task

for bad plays. I know how hard the game is to play; I know what a losing streak is, and to have people hounding you about why you're losing. I don't ever get on players for a miscue."

Uecker was named to the NAB Broadcasting Hall of Fame this spring. His selection seemed particularly apt at



After a six-season diamond career, Bob Uecker has built media success through radio work, television commercials, movie roles and situation comedies.

a convention that celebrates the shift of content to diverse media and platforms.

Uecker is a multimedia master. April 13 was the 50th anniversary of his debut in the majors. After a six-season diamond career of modest offensive accomplishment — one that nevertheless included a World Series ring — he built media success through television commercials, movie roles and situation comedies.

Fans might know Uecker from his appearances on "The Tonight Show," "Mr. Belvedere," the "Major League" movies, "Monday Night Baseball" and

generations of Milwaukee fans.

"People become accustomed to a particular announcer, for that particular city," he told me in a phone conversation from spring training in Arizona.

"At 6:30 p.m. every day, you become a part of people's lives, no matter where they are. They walk around the house and can hear the game. Farm people doing chores have radios with them. You're part of the family every day."

He is struck by the connection baseball makes with people, by the fact that even in this electronic age — when

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NEWS

UECKER

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distant fans can hear him on the Internet and satellite as well as the local AM dial — listeners still write letters and notes to talk about their families, to tell him about their memories of time spent with fathers or daughters, mothers or sons. "That's one thing baseball will never lose."

Radio heightens that connection. "People don't know how green the grass is, how the rain is settling on the field. They can't see the vendors." He takes joy not only in describing those

things but in letting a game create its own atmosphere, in allowing the cry of the vendors to be heard between his descriptions. He calls that sound "one of the best things in all of radio."

Uecker has lived to see his name in the National Baseball Hall of Fame, not as a player but as a recipient of the Ford C. Frick Award for broadcasters. At age 77, he has no plans to retire soon. He says he'll know when it's time; for now he's enjoying going to the ballpark and opening that microphone every day.

"I love radio," he says. And he's quite content to root for the team that

wears the home uniform.

"I work for the team. I work for Milwaukee. I want the team to win all the time. I'm close to the players. There are ways to get around bad plays [as an announcer] and to talk about a losing streak without ripping anybody. That's the way I work. I don't have problems with players challenging me about something bad I said on the air.

"I'm a homer, I guess is what people would call me. Well? Who do you want me to pull for?"

This story originally appeared in the NAB Daily News and is © NAB.



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NEWSROUNDUP

LPFM VS. FM TRANSLATORS: As of June 4, third-adjacent channel spacing requirements to protect most full-service FMs are going away. The effective date was set by Federal Register publication of the FCC's recent actions to implement the Local Community Radio Act. Channel protections remain in place to protect radio reading services. Questions still to be decided regarding LPFMs and FM translators also have been published in the Federal Register; public comments are due on the FCC proposals by May 7 and replies by May 21 filed to MM Docket 99-25. The commission is asking for input on questions like whether LP10s and LP250s should be licensed, and whether and under what conditions to allow waivers of second-adjacent channel spacing requirements for full-service stations to allow more LPFMs in a market.

AHA, ACURA: The infotainment platform Aha by Harman will be integrated into Acura RLX vehicles beginning in model year 2013. Aha says its platform makes Web content safe for drivers. Aha will be integrated via a wireless Bluetooth smartphone pairing. Aha is powering what it calls the Web-connected so-called "fourth band" of radio, alongside AM, FM and satellite radio. Aha users can access thousands of audio stations, including Web content like Internet radio, on-demand music, live



news, podcasts, Facebook and Twitter newsfeeds and personalized points of interest information.

PANDORA: Web audio service Pandora says its aggressive hiring of salespeople in local radio markets is paying off, with more than 400 local ad campaigns kicking off so far this year. The company says its listenership continues to climb. For March, the company said its listener hours crossed the 1 billion mark, an increase of 88 percent from 567 million during the same time period last year. Pandora claims its share of total U.S. radio listening in March was 5.79 percent, an increase from 3.04 percent at the same time last year. Most 2013 model year Suzuki vehicles available this fall feature a Garmin unit will enable drivers to hear Pandora when they connect their iPhone. Nissan plans to add Pandora capability via smartphone to the 2013 Altima, available this summer.

AMATEUR RADIO: The FCC is considering formally including the amateur radio service in its emergency communications planning, noting hams traditionally meet essential communications needs and facilitate relief actions. Congress has required the agency to study the issue and submit a report to the House and Senate Commerce Committees. The commission seeks comment on whether any of its rules actually prevent the amateur radio service from functioning during emergencies, and what technical innovations might improve the service, among other things. Comments are due May 17 to GN Docket 12-91.

BUICK, HD RADIO: The 2013 Buick Enclave comes standard with HD Radio. The car will be available at dealerships this fall. The automaker's IntelliLink infotainment-communications system is standard on



Enclave models. An AM/FM/HD Radio receiver is part of the IntelliLink system. The unit also plays CDs and MP3s and is SiriusXM-ready with a subscription. IntelliLink supports Pandora and Stitcher via a connected smartphone.

MAP TO CLOSE: Public interest law firm Media Access Project is shutting down, citing funding problems. MAP will suspend operations May 1, after a nearly 40-year run. Under MAP President/CEO Andrew Schwartzman, MAP often squared against broadcasters in regulatory issues on the Hill and at the FCC. MAP argued against loosening media ownership limits and was instrumental in the commission's creation of the low-power FM service. However MAP sided with broadcasters when defending First Amendment rights.

RT+ SUPPORT

(continued from page 3)

RDS encoder. Later that year, Inovonics introduced its 730 RDS encoder, the first encoder I saw that had integrated RT+ support.

At the same time, Artic Palm released a version of their Center Stage Live CSRDS software that could address the Inovonics 730 and provide it the RT+ tagging information. In June 2009, AirRDS, a software-based RDS management system, started supporting RT+ on virtually every encoder too. But all things considered, in 2008-09 there were few RT+ encoding products available.

Since then, most RDS encoder manufacturers have stepped up, with many of them offering new models that support RT+ directly through their command line interface.

In early 2010, Audemat/Worldcast Systems introduced a firmware upgrade

that can be purchased to add RT+ into its flagship FMB80 encoder. New FMB80 encoders that are purchased also include integrated RT+ support.

In March 2010, BW Broadcast introduced an RDS2+ encoder, and in July 2010 offered a software upgrade for

the encoder knows the proper Content Type, Start and Length markers for RT+ tags. In time, especially with customer demand, these systems will adapt to address these encoders.

Many older RDS encoders cannot be upgraded to support integrated RT+.

If you do not have RDS on your station, consider getting it. If you do, consider ways to add RT+ to your existing RDS data stream.

their RDS3 encoder, enabling both products to have integrated RT+ support.

In October 2010, the low-cost Pira32 RDS encoder offered a free firmware upgrade that adds integrated RT+ support. In March 2011, Kvarita added RT+ to its RDS500 and RDS1000 products.

And at the NAB Show in April 2011, Audemat introduced a new lower-cost RDS encoder model, the FMB50 that supports RT+.

SUPPORT

However, many of the major broadcast automation vendors do not yet directly support these encoders' RT+ features. While most automation software can send basic commands to the RDS encoder, there are additional lines or a different syntax needed so

Understandably, it might not be in the budget to buy a new encoder just to support RT+. I think there's a large market for solutions in this area. There are a couple of software and hardware products mentioned above that can work in conjunction with older RDS encoders to provide RT+ tagging without necessarily replacing the encoder; but I think more vendors should consider offering solutions in this area.

Overall, all vendors should support this standard in order for it to be deployed widely by all broadcasters. Costs associated with implementing RT+ should not be significant, and they should be one-time fees.

Over time, as RT+ encoding demand grows and this need is relayed to software and hardware vendors, more solutions

will come to market. Interoperability among automation systems, third-party software and RDS hardware manufacturers will improve.

Ask your vendors for RT+ support when seeking new products or making upgrades/changes to your systems. And I would encourage everybody to look into the options at adding RT+ to their RDS broadcasts. Having RT+ computability should be a requirement for any new purchases.

I covered this topic in my NAB Broadcast Engineering Conference paper entitled "Understanding and Deploying RT+" at this year's spring show.

In our next article, we'll discuss things we all should be doing to ensure the information we display via RDS is clear and concise.

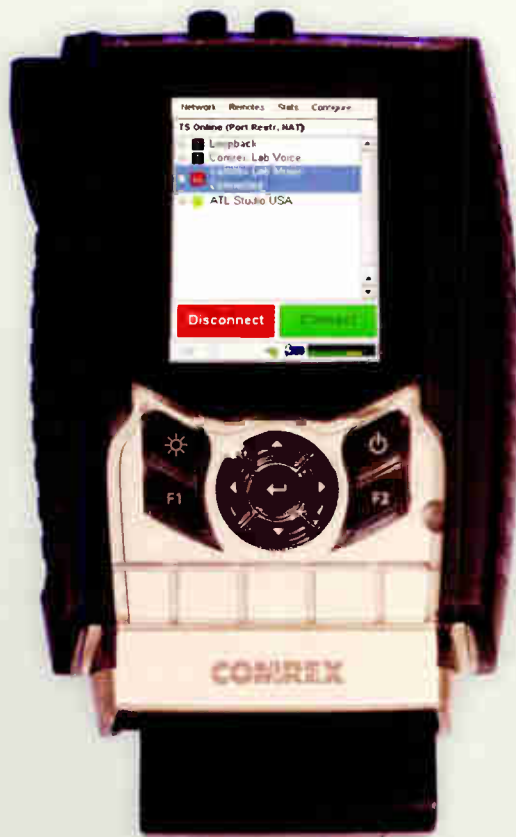
Alan Jurison is a senior operations engineer for Clear Channel Radio Engineering and Systems Integration Group in Cincinnati. He holds several SBE certifications including CSRE, AMD, DRB and CBNT. Opinions are his own and not necessarily those of Clear Channel or Radio World.

GET THE MOST OUT OF RDS

This is one of a series of articles to help you get the most out of RDS. Read them all at <http://radioworld.com/RDS>



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STATE EAS

(continued from page 1)

However, the overall success of EAS does depend on individual state plans that promote cooperation and coordination among broadcasters, the National Weather Service, FEMA, the FCC and State Emergency Communications Committees, said a person familiar with alerting plans.

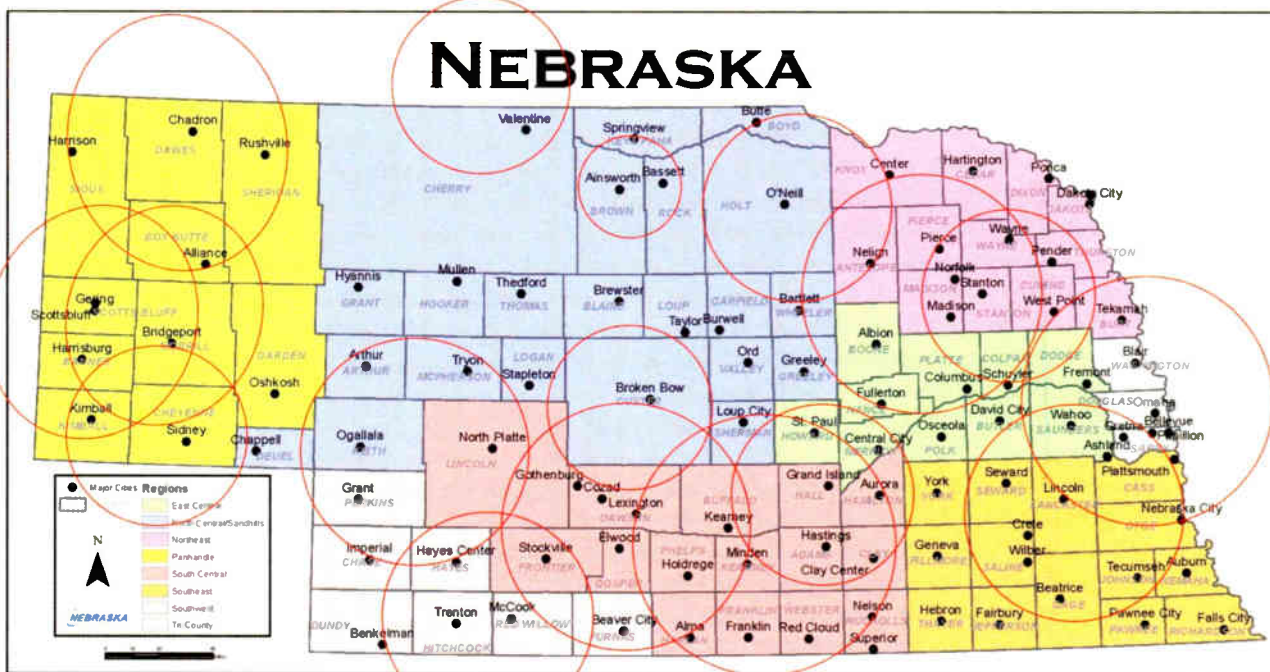
There is no absolute requirement for states to have an EAS plan; but if they do, the commission must review the document to make sure it's consistent with national EAS plans and FCC regulations, according to the FCC's Public Safety & Homeland Security Bureau. Those state plans are key in how local alerts are delivered.

The plans are written to promote preparedness and structure response. Essentially, alerting managers for each state develop their own plans to coordinate EAS activity among broadcasters, state government and public safety organizations.

JUNE 30

Responses to Radio World's questions for this story varied; but the majority of state planners contacted want federal agencies to settle the remaining EAS obstacles quickly.

"Connecticut is continuing to work on the plan. Once the rules are released we will have a minimal amount of work to finish the plan," said Wayne Mulligan, the Connecticut SECC chair.



Nebraska State Emergency Communications Committee

An image from the draft EAS operational plan for Nebraska. Most, if not all, local stations and cable systems in Nebraska can receive one of the 17 Local Primary One (LP-1) radio stations, FMs that normally operate 24/7.

The June 30 deadline for broadcaster CAP compliance is not necessarily the date for states to have new EAS plans ready, but many are using it as a guide, several SECC chairs told Radio World.

"As far as I know the state plan will not have to be revised by June 30, but we are going to shoot for that anyway. CAP does present some challenges and will probably be a rather large rework," said Lloyd Collins, Missouri SECC chair. "Reasons for this are the age of the cur-

rent plan and that it was based on an FM relay plan that is not reliable enough."

The ultimate purpose of a state plan should be to guide participants like stations in how to connect with the EAS state system and what type of communications they should expect from the state, he said.

In Missouri, where work on a new state plan has just begun, lack of a current CAP server and complications with a new statewide alert system from

(continued on page 10)

INSIDE THE ALABAMA STATE EAS PLAN

State EAS plans vary in detail and length, often depending on the thoroughness of state and local emergency planners and how active State Emergency Communications Committees are. Many state broadcast associations also assist in such emergency communications planning.

Alabama, prone to tornados and hurricanes, is considered by some observers to be proactive when it comes to emergency planning.

The state's EAS plan, formulated in 1996 and 21 pages long, is being updated to include the information from the new Part 11 revision, according to Larry Wilkins, the Alabama EAS coordinator.

The state upgraded its EAS alerting infrastructure in 2011 by adding Global Security Systems' GSSNet satellite delivery system. Alabama designated GSS Alert Studio as the official origination and retrieval tool for Alabama's Emergency Alert System.

Alabama, which features two distribution networks — the Alabama Public Television Network and GSSNet Satellite Network — requires all radio stations to monitor two sources. Alerts and tests are originated via the GSSNet Alert Studio Web portal. Messages are fed in the CAP format to all GSSNet-equipped stations and cross-fed to Alabama Public Television master control, Wilkins said.

Only designated officials at the state's Emergency Operation Center and the Alabama Department of Transportation (Amber Alerts) are able to activate emergency messages, he said.

State EAS plans may be read at the website for the FCC's Public Safety and Homeland Security Bureau. Find it via the links page for this issue, <http://radioworld.com/Apr-25-2012>.

— Randy J. Stine



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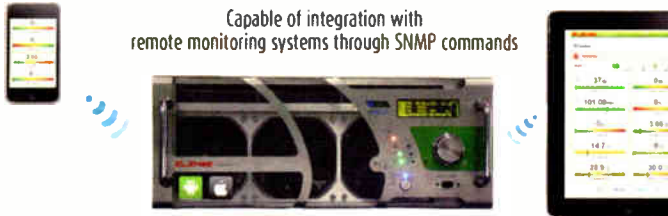
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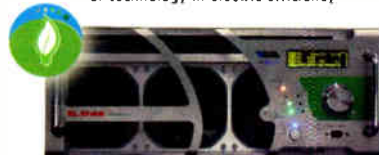
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STATE EAS

(continued from page 8)

Spectra-Alert, Collins said, has caused delays. The State Emergency Management Office is studying ways to correct problems or possibly replace the system.

"We will continue efforts to get a good statewide relay. For now, national alerts will be relying on monitoring PEP stations, which is difficult in some [outlying] areas," Collins said.

We want to move on to using CAP. The trouble is making it compatible with the federal system and just as importantly with neighboring states," Skinner said.

One Midwest SECC chair says he's worried about the lack of progress his state has made on implementing CAP protocol or re-writing the state EAS plan.

"Illinois Emergency Management working with FEMA should be the driving force behind CAP and any changes to the plan in Illinois. And to date there

No more surprise rules changes that change everything. I appreciate state's rights, but EAS is a federal mandate. We want to move on to using CAP.

— Jim Skinner

Meanwhile, emergency planners in Nebraska are forming a separate committee to analyze and recommend what the state should do for state CAP servers and CAP generation, said Nebraska SECC Chair Jim Skinner.

"I expect that about a year from now we will come out with a new state plan that includes state and local CAP. I doubt it will be much sooner," said Skinner. "Some states already have a CAP system but most do not. There are some drawbacks to early adopters. State emergency management in each state needs to get a vision for the value of CAP."

In addition, Nebraska emergency planners are hoping the FCC and FEMA present state emergency planners with clear guidelines soon.

"No more surprise rules changes that change everything. I appreciate state's rights, but EAS is a federal mandate.

has been nothing done," said Wayne Miller, chairman of the Illinois SECC. "I don't see the situation in Illinois changing in the near future.

"I am disappointed that no one at the federal or state level is taking the lead in developing the system. It appears they are leaving it to unpaid volunteers to develop it for them and then complain when they don't like it. [Officials] are so afraid of making a decision and being blamed."

But Adrienne Abbott, chair of the State Emergency Communications Committee for Nevada, said: "States that have active EAS SECCs are involved in the rewrites to include CAP. But there are a lot of states — maybe as many as half — where there's no active SECC and no effort to get state and local emergency managers to buy CAP equipment and software."

NEWSROUNDUP

FARBER, HALEY SWITCH: Erica Farber is the new president and chief executive officer of the Radio Advertising



Jeff Haley

Bureau. Jeff Haley, who headed the RAB for five and a half years, left to lead traffic and billing software firm Marketron. Farber has been executive vice president of RAB since 2011 and spent 15 years at the former

Radio & Records, holding various leadership positions. Some 80 percent of U.S. radio advertising dollars flow through Marketron systems, according to the company. Both Farber and Haley assumed their posts April 16.



Erica Farber

SIRIUSXM: It remains to be seen how SiriusXM's attempt to go around SoundExchange and the American Association of Independent Music — in order to conduct business directly with music labels and lower music licensing fees — will turn out. The satcaster sued the two organizations, saying groups want SiriusXM to rely exclusively on them to obtain music licensing that has been negotiated with the music industry or on the outcome of regulatory rate-making proceedings. SiriusXM is trying to lower its music licensing costs.

What will you do with all the extra rack space?

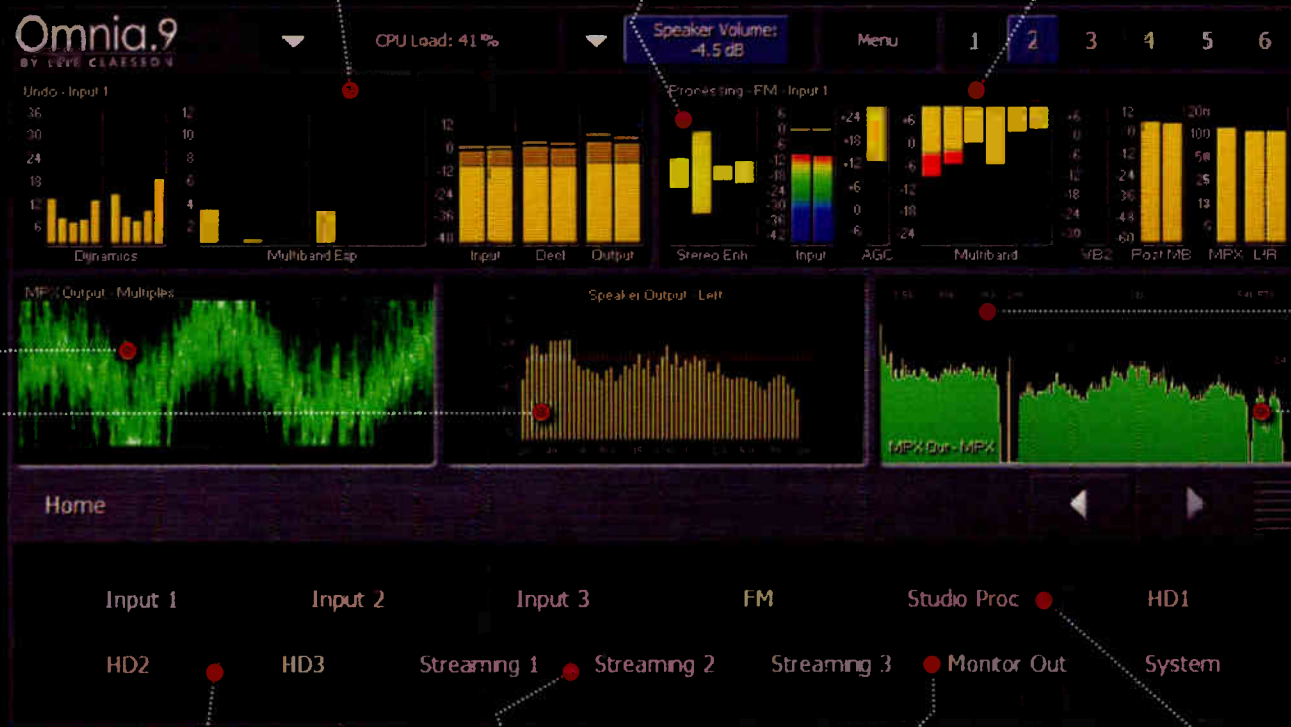
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Brighten Your Remotes With Duck Tape

'Get the Duck to Do It' — From Gray to Groovy Tie-Die

I visited a Lowes the other day and came across something for your remote kit.

Colorful Duck Tape comes in more than 20 colors and patterns; there's even a neon color that can't be missed.

WORKBENCH

by John Bisset

Read more Workbench articles online at radioworld.com

If you're worried about people tripping over your cables at live events, and the possible lawsuits to follow, put your mind at ease now. This stuff *will* be seen, and it adheres to most surfaces.

While it's a bit on the pricey side, the \$7 investment is good insurance against someone yanking your cables or worse. If you shop on the Web, prices are about half of what you'd find in a bricks-and-mortar store. Google search "colorful Duck Tape," or pull up the Radio World links page for this issue; the URL is at the end of this article.



Fig. 1: Use colorful Duck Tape to protect wiring at live events.

conversation with Tom McGinley, a longtime broadcast engineer and technical advisor to Radio World, who shared an interesting tip about installing Caller ID on your studio phone system.

There are still lots of radio stations using the old POTS and 1A2 keyphones with hybrids and controllers like the Telos legacy gear for studio use. A number of engineers with whom Tom has spoken are under the impression that

they have to add expensive PRI trunk lines and/or replace their entire studio phone system for big money in order to get Caller ID.

This is simply not true: POTS lines have carried the Caller ID header info for years. You can add a Caller ID display feature to any POTS-based phone system by using a nearby PC with the *Whozz Calling?* data box and free software from *CallerID.com* to show the ID

info as soon as calls come in.

CallerID.com provides a variety of free software applications that run with *Whozz Calling?* devices. The site also provides a source code for developers with each application. (All applications and source codes are royalty-free and can be distributed without any rights reserved.)

For several stations in Seattle, Tom uses the *Whozz Calling* POS 8, which handles eight lines per box and costs in the hundreds of dollars. He uses this in conjunction with Caller ID software called ELPop, which includes

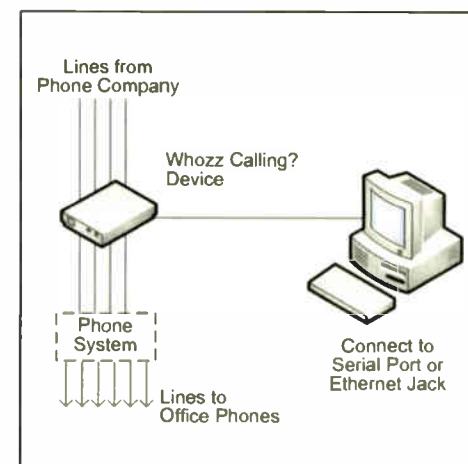


Fig. 2: A graphic from the Caller ID website explains how the POS series works.

Ethernet connectivity to other PCs on the LAN. Four- and eight-line units can be chained to provide up to a maximum of 96 monitored lines.

Applications are divided into two basic types. The ELP programs work with Ethernet-linked *Whozz Calling* devices; the Listener programs work with the RS-232 Serial Port *Whozz Calling?* devices. Determine which type you are using and select the appropriate application.

Tom's suggestion about adding Caller ID can be helpful in other ways, too. Such was the case when we suspected that a former station employee had been calling the transmitter site and monkeying with the remote control functions, raising and lowering power, running the aux transmitter into the dummy load, then finally just turning off the transmitter. What a big joke!

A Caller ID box was worth the investment. This former employee's name and number popped up. We contacted the local sheriff; he called the number, identified himself and informed this person that a police report was being filed. If there were any more problems, he'd be the primary suspect.

The problem stopped.

Tom McGinley can be reached at tom.mcginley@cbsradio.com. To learn

(continued on page 14)

GR
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The CAP-DEC1, Gorman-Redlich is a stand-alone CAP-to-EAS converter for use with your existing emergency alerting equipment. This cost-effective device allows broadcasters to easily meet Common Alerting Protocol (CAP) compliance requirements mandated by the FCC without requiring the purchase of an additional encoder/decoder system or other costly

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World Radio History

MARKETPLACE

SPORTS AUTOMATION: Skyview Networks released F.A.S.T. Web Automation, a tool for play-by-play broadcasters.

"The system debuts break-specific commands, in place of relay technology, and utilizes a Web interface," the company announced, adding that it will be offering it first to Major League Baseball organizations. The system integrates with Skyview's satellite receivers.

"This Web version increases network broadcast success and allows affiliates access to game logs from anywhere an



Internet connection is available, with no software to install."

Skyview says the tool helps a network grow and eases the operational burden on affiliates, in part because it eliminates the need for a board op.

Instead of relay technology as used in network broadcasts, it takes a "break-specific" approach in which local, ID and network breaks have break-specific commands.

"This new model keeps network stations on format, decreasing the possibility of missed breaks, covered breaks or late rejoins," according to the supplier.

Schedules and audio are updated automatically to the satellite receiver through the portal.

"For stations, going Web-based provides immediate real-time access to logs and as-played reporting. For franchises, the automation offsets station costs associated with broadcasting its play-by-play programming."

Users include Marc Garda, director of broadcasting for the Pittsburgh Pirates.

Info: www.skyviewnetworks.com/services

SKYVIEW
NETWORKS

WORKBENCH

(continued from page 12)

more about CallerID.com or about becoming a member of SBE, visit the Radio World links page listed below.

In reference to a *Workbench* article in the March 11 issue about worn-out gear in the photocopy machine, Channel 1 Images' Wayne Eckert writes that the old gear appears to be some form of a reinforced polymer.

At best, that material was a compromise between cost and life expectancy. Eckert says that the new material looks like DuPont Delrin, which is a resin almost as tough as steel. The compound is not only long-lasting; it is self-lubricating (dry, no dirt attraction — find the PDF via our links page).

As such, there is a good possibility that the new assembly will outlast the remaining mechanics within that copy machine.

Wayne Eckert can be reached at W.Eckert@channellimages.com.

The links page for this issue of RW is <http://radioworld.com/Apr-25-2012>.

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

Author John Bisset has spent 43 years in the broadcasting industry, and is still learning! He is SBE Certified, and is a past recipient of the SBE's Educator of the Year Award.

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Shortwave Station 9XF in Chicago

The Windy City's Blustery History Of Shortwave Radio

BY ADRIAN M. PETERSON

There's no place like Chicago.

Situated on the western edge of Lake Michigan, it is one of the largest cities in the United States. Its greater metro area — estimated at 10 million people or so — extends almost 50 miles inland, stretching up into Wisconsin and down into the northwestern part of Indiana.

AMERICAN SHORTWAVE

For most of the 20th century, Chicago was the second largest city in the United States after New York, a fact that earned it the nickname "Second City." This was a disparaging term out of New York but later appropriated by the city's famous improv troupe whose alumni include Bill Murray, Stephen Colbert and Tina Fey.

Chicago is famous for its rebirth after the tragic fire of 1871, the Prohibition gangster heyday of Al Capone, the grandeur of its tall towers and the passion of its arts scene.

However, there's one piece of this city's history that's less widely known: its role in the days of broadcasting via shortwave before World War II.

In the mid-1930's, the total number of shortwave stations on the air in Chicagoland was more than 50. Most of these were in use either for direct communication with other stations or for the broadcast of experimental TV or for the old Apex system of program broadcasting that pre-dates FM use. However, sufficient evidence exists for us to presume that a dozen or so of these shortwave stations were actually on the air during the pre-war years, with broadcast radio programming for direct reception by shortwave listeners in the United States and beyond.

On June 1, 1927, Samuel Insull, owner of the Great Lakes Broadcasting Co., bought the highly popular medium-wave station WENR from E.N. Rauland, owner of the All-American Radio Corp, headquartered in Chicago. The sale was finalized on April 17, 1928 with the transfer of \$1.5 million. If that sum sounds big today, imagine what it was back then!

Before the sale even finalized, Insull's company had applied to the Department of Commerce for a license to operate a special land station on 1040 kHz under the call sign 9XF. Almost immediately, plans were made to build a complete new broadcasting station at an outer suburban location in Downer's Grove, a facility that would include

offices, studios and several transmitters.

The brand-new headquarters for the two stations was launched in the middle of 1929, the year the Department of Commerce approved an extension of the 9XF license to include three shortwave channels: 6020 kHz, 11800 kHz and 21500 kHz.

When NBC took over, it stated that the shortwave broadcasts from W9XF would continue with programming from the Blue network, though they did close the mechanical TV service from W9XR. New NBC studios in Chicago were installed in the Merchandise Mart, according to a 1932 article in Broadcast

NBC's WENR-WMAQ over the shortwave outlet W9XF stayed on the air about a decade, heard throughout the United States, Europe, South America and the South Pacific, even as far away as New Zealand.

In April 1932, American radio magazine Broadcast News stated that the New Zealand Broadcasting Service "has had remarkably good results in re-broadcasting signals from this station" — even at a time when the power of the transmitter would have been rated at just 5 kW.



What broadcasting looked like in NBC's Chicago studio, early 1930s.

From John Schneider's photo collection

At WENR, the transmitter was a 50 kW AM medium-wave unit; W9XF used a 5 kilowatt shortwave unit. In all likelihood, the shortwave transmitter used for W9XF also was used for an experimental mechanical television station called W9XR, also owned by Great Lakes.

Incredibly, shortwave W9XF showed up in logs from Australia in August of 1930, on 6120 kHz with a program relay from medium-wave WENR, which was at that point operating its on-air studios in the electrical generating plant of Commonwealth Edison, at 72 West Adams St., near Grant Park.

Despite some success, however, GLB sold its radio and TV facilities a few months later, including the Downer's Grove station, to a new kid out of New York: the National Broadcasting Co.

News magazine. The Merchandise Mart remains the "world's largest commercial building" to this day, according to its website.

Programming from NBC was broadcast over several transmitters, including WENR, WMAQ and W9XF. Interestingly, an additional call sign was taken into use for W9XF, in 1933; this was W9XQ. Both call signs were in use on the same channel, 6100 kHz, at the same power level, 5 kW.

In 1937, NBC lodged a request with the FCC to install a 50 kW shortwave transmitter, but this was denied. The reason behind the rejection may have been that NBC already was involved with a large shortwave station located at Bound Brook, N.J.

At any rate, programming from

The shortwave service closed entirely in late 1938, when the WENR-WLS transmitters were re-sited to Tinley Park.

The Downer's Grove site was sold to Frank J. Curran in 1942 to be used as a wartime manufacturing facility during World War II. After the war, it followed a story familiar to many industrial sites in this country: the facility was used to make small items like mothballs, plastic ashtrays and disinfectant cakes, but after manufacturing ceased there in 1990, the building fell into ruin, demolished six years later to make way for a townhouse development.

Sadly, all good things must come to an end.

Dr. Adrian M. Peterson is coordinator of international relations and DX editor for Adventist World Radio.



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WRPO Celebrates a Decade

With More LPFMs Pending, Here's How One Station Did It

BY KEN DEUTSCH

In Russell's Point, Ohio, the population of 1,530 more than doubles during tourist season. Situated on scenic

LOW-POWERFM

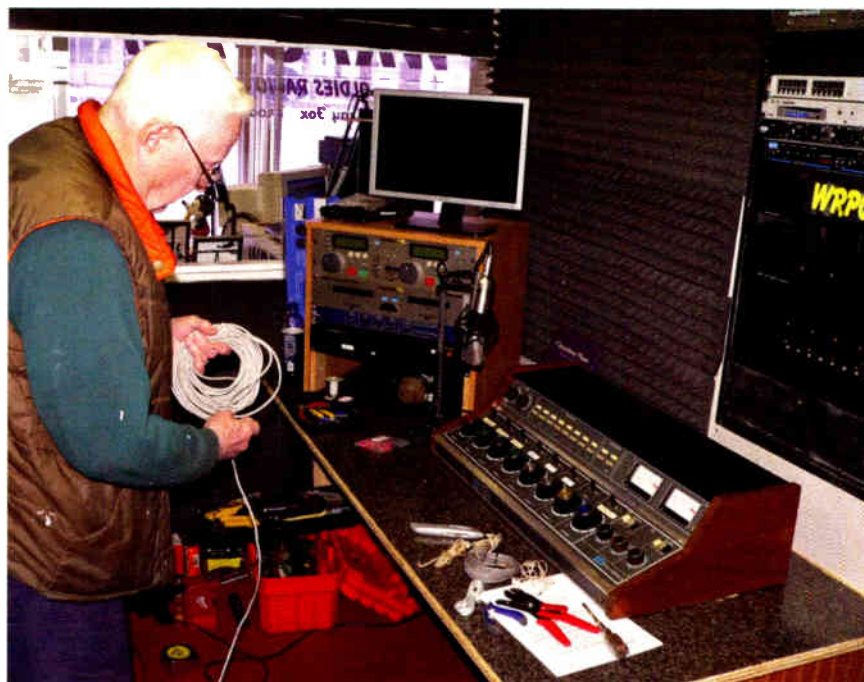
Indian Lake, the village is home to the annual Eagles Crappie Tournament, a maple syrup festival and daffodils popping up every spring. (Each of these events qualifies as "tourist season.")

Russell's Point also is home to WRPO(LP), an oldies-spinning, community-servicing 100-watt operation heard on 93.5 MHz, licensed to the city itself and run since its inception by Gray Fox Broadcasting. WRPO signed on Memorial Day weekend, 2002. It is about to turn 10.

Everyone involved with the station is a volunteer, even General Manager Gene Kirby, the gray fox of the company's name (and not to be confused with the late, famous American sportscaster). He splits his time between WRPO and a part-time job as director of operations at WQTT(AM) in Marysville.

'COMMUNITY MINUTE'

"I have a place up there in Russell's Point that we use during the summer," Kirby says. "Since I've been in radio for 50 years, starting this station



Gene Kirby wiring new Studio B.

seemed like a good thing to do, so we approached the town council."

WRPO began as a hobby for Kirby. He says that after retiring from General Electric Mobile 16 years ago, "I wanted to get back into broadcasting. You never get enough of radio because once you get the bug, it's hard to get rid of."

Program Director Kevin Fodor noted

that two years ago the station asked a local church to undertake a phone survey of 100 area residents, asking about their music preference: 60 percent said "oldies." Thus the format was switched from smooth jazz to hits of the 1950s through the 1980s.

"Hey, if you can get a consensus from two out of 10 citizens, that's

excellent," said Fodor. "If you're getting this strong a message, you should go with it. We play the standard 600 oldies but we also have another 600 in our 'B' category."

Unlike many low-power operations, the station features local news and weather, as well as a "Community Minute" segment aimed at born-and-bred Russell's Pointers and enthusiastic newcomers alike. Because the local police and government offices are in the same building as the station, the latest news is easy to come by.

On the weekend, you can tune in to shows devoted to the Beatles, bluegrass music and local church services. "Debbie the Lunch Lady," a real-life food service employee at Indian Lake Schools, presents the daily K-12 lunch menus.

One surprising feature of WRPO is a mini-broadcast museum, situated in the hallway. "Some of the equipment is on loan from our GM," said Fodor, who uses the on-air moniker Jason Michaels.

"We have old TV cameras and radio tubes along with a Collins console that looks like it's circa 1968," Fodor said. "What I hate are those stations where it's nothing but one guy running it with his iPod."

ARBITRON, SCHMARBITRON

Like Kirby, Fodor has a full-time job elsewhere in broadcasting, at Cox Media's group of stations in Dayton. He knows it's important for WRPO to pay attention to listener response.

"I was sitting in a local watering hole and a lady there spoke up when I mentioned the station and told me she loved our Beatles show, without any prompting from me," he said, adding that the number of underwriters the station employs has grown from 12 to 50 since they started their oldies format.

Fodor said the station gets lots of emails and letters from regular listeners, complimenting the station on its technical quality (engineering by Kirby and production by Fodor).

"Last year we purchased a digital audio processor known as Breakaway Broadcast by Claesson-Edwards, and it caused an immediate improvement to our sound over the old 1980s-vintage analog processor that the station had for years," he says. "While we do play MP3s for our music, we only play 320 kilobyte files."

Perhaps it's respect from the community that has led to the cash donations totaling "four figures in the past, which is not bad given the size of our community," Fodor said.

(continued on page 22)

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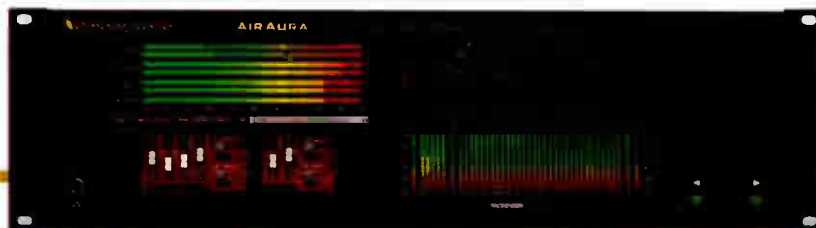
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WRPO

(continued from page 18)

The LPFM service is about to expand, as RW has reported.

According to a recent FCC report to Congress prepared as part of that process, typical LPFMs have "negligible ratings by all available measures," yet tend to attract loyal listening as evidenced by high time spent listening.

Because the service itself has existed only for a dozen years or so, not much documentation exists about them. Therefore, the commission also under-



Dale Madison doing a remote broadcast at Indian Lake.

Photo courtesy of Gene Kirby

took a small study of eight LPFM broadcasters as part of its report. In the end, it determined that "none of the sample stations stated that maximizing revenues or listenership is among their goals."

The survey also determined that most LPFMs work within a budget of between \$5,000 and \$15,000 annually.

This is certainly true of WRPO, which operates out of space provided by the village of Russell's Point. The village also supplies Internet service so the station can be programmed remotely. This facilitates emergency weather updates from wherever station personnel might be. WRPO's annual budget of less than \$7,000 is barely enough to pay the music licensing fees and keep the lights and phone operating.

"It's a challenge," said Fodor, simply.

'A BREAK-EVEN THING'

When full-power broadcasters over the years have expressed concerns about possible interference from LPFMs, their concerns have usually taken the form of NAB opposition to its expansion.

In 2007, the association stated in a press release, "The 232 million weekly listeners of local radio should not be inundated with the inevitable interference that would result from shoehorning more stations onto an already overcrowded radio dial."

But when a compromise to expand the service became law, NAB expressed satisfaction that the legislation had confirmed the primary status of full-power stations and provided spacing rules to protect stations.

Kirby believes interference is not an issue in Russell's Point.

"We have never had a problem with that because we operate under the guidelines of the FCC and watch our ERP output. We are well-liked by other local broadcasters and try to keep them happy," he said.

"I wish we could use a translator, as I know of some other LPFMs that use them and they help a lot. I also wish we could use an FM booster station, but that is not an option for us since we are allowed only one station license."

Kirby does not see WRPO as competition for the local commercial broadcasters with respect to programming either: "This is a break-even thing. We don't make money, nor do we want to. We're here for the people with our music, school menus and events calendars. It's strictly a little community station."

Ken Deutsch is from a small town in Ohio, where he confesses that he once stole a comic book from a drug store. Since this occurred 50 years ago, he is hoping the statute of limitations is up.

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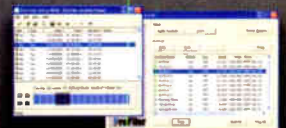
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PEOPLENEWS

Jeff Smith was hired as the chief engineer for Randy Michael's **Merlin Media LLC** in New York City. He will be in charge of WEMP(FM)'s technical facilities.



Jeff Smith

Bill Hickey was promoted by program syndicator **Premiere Networks** from vice president to senior VP of engineering, continuing to oversee technical operations for

Premiere's studios in Los Angeles, New York, Seattle, Chicago and Florida.

Transmitter maker **Continental Electronics** named **Kerry Cozad** as director of engineering. He formerly was vice president of broadcast engineering at **SPX Communication Technology** (formerly Dielectric Com-



Bill Hickey

munications).

Klarn DePalma, senior vice president and general manager of Hartford/New Haven station **WFSB(TV)** and Springfield, Mass., station **WSHM(TV)**, was elected as chair of the **Connecticut Broadcasters Association**. DePalma, a faculty member at **Howard University** in Washington, has been with **WFSB-TV**



Kerry Cozad



Klarn DePalma

3 for some 20 years.

Germany-based **Yelowtec** hired former **Baseline 21** marketing director, **Caroline Dreier**, to handle marketing and media efforts for the company, a newly formed position.



Caroline Dreier

Dreier is now based in Germany.

Harman appointed **Paul Shorter** as technical services manager for its **Soundcraft, Studer and AKG** brands.

Australia-based codec maker **Tieline Technology** announced the appointment of **John Lackness** as vice president of sales for the Americas. Lackness makes the move from **SCMS**.

Spanish Broadcasting System (SBS) President and CEO **Raúl Alarcón Jr.** was named honoree at the American Cancer Society's Florida chapter 2012 gala held April 21 at the InterContinental Miami hotel.

Former Federal Communications Commissioner **Michael Copps** joined the board of directors for **Public Knowledge**.

Marketron named **Jeff Haley** as CEO and president. He had been president/CEO of the **Radio Advertising Bureau**.

Erica Farber replaced Haley. She is former chief operating officer, president, publisher and chief executive officer of **Radio & Records**. She also founded **The Farber Connection**.

FM transmitter manufacturer **Elenos**



John Bisset

USA hired **John Bisset** as director of technical services and education. It recently named **Mary Ann Seidler** director of North American sales. Bisset has worked for transmitter companies

Harris, Broadcast Electronics and Nautel, as well as **Tieline Technology** (where he worked with Seidler) and other manufacturers. He writes **Radio World's Workbench** column and is a past recipient of the **SBE Educator of the Year** award.

Laurie Andres, marketing and public relations specialist for **Full Compass Systems**, was promoted to senior marketing coordinator of the equipment distributor.



Laurie Andres

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Pandora: Confusing the Marketplace

The Algorithm-Driven Setup Is Not 'Radio,' Cridland Argues

COMMENTARY

BY JAMES CRIDLAND

I met Tim Westergren a while ago, when we were both keynote speakers at a conference here in the United Kingdom. He's a nice man: passionate about his product but also down to earth. (He wore a t-shirt. Not many conference speakers wear t-shirts. I think there's a law against it.)

Westergren has a product, Pandora, that's worth being passionate about. If all you want is music, it's a great jukebox service. I loved it when it was available in the U.K., and whenever I'm back in the U.S., I sneak a little listen every now and again in hotel rooms wherever I am — that is, if I can't find something on the radio that I like.

CURATED, LIVE, LOCAL

Radio, as a brand, stands for a live, local, shared experience curated by human beings. Pandora isn't radio — it's a jukebox driven by a computer algorithm.



An exterior shot of a 'real' radio station in the UK, taken by the author.



James Cridland

so to speak, is a whole lot of confusion.

Westergren can't reach agreement with the music rights holders in order to get Pandora into the U.K., so what does he do? He goes after the radio industry.

In a recent interview for the website PaidContent, Westergren boasted, "The number of Internet radio hours streamed by all services in the U.K. in a quarter is roughly equal to the number of Internet radio hours streamed by just Pandora on a single day."

Of course, that statement is flawed, and not just because the U.S. clearly has a larger population than the U.K. (who knew?!). More importantly, Westergren didn't read the U.K. radio research figures properly, mistaking a week's Internet streaming figure for an entire quarter.

In fact, if I might fly the flag for British radio, when you compare the figures correctly, U.K. radio performs just as well as Pandora online. We're doing something right on this small damp island after all.

STAR QUALITY

Pandora is not "radio," no matter how hard the company claims it is. I will never start a conversation with "did you hear Pandora this morning?" I won't tune in to Pandora in a new city to find out what's going on. I won't hear amazing stories on Pandora, nor something that'll make me smile.

The company clearly wants a bit of radio's star quality, and that's to be expected. Ninety-three percent of the U.S. uses radio every week, after all. But to be part of that success, it helps if you don't try to destroy the very thing you aspire to be.

This is not the way to gain allies, old chap. No matter how many t-shirts you wear in conferences.

Cridland is a radio futurologist and managing director of Media UK, www.mediauk.com.

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Listening to Pandora, I stand little chance of knowing when my electricity will be turned back on or when the hurricane will get worse. I don't know when the subway isn't working, or who won the big game last night or exactly what will come out of Limbaugh's mouth next.

Musically, I don't hear something that surprises me; I don't hear a great story behind a song, or any information about the artist that I didn't already know. I don't hear exclusive live performances, and I don't even hear a good segue.

I understand why the company branded itself using "radio." Radio is a great thing, and Westergren understands that people might use Pandora more readily if "radio" is part of their product.

However, because Pandora has stolen the radio brand, in the mind of many consumers we're one and the same. Those of us in "real" radio have idly sat by and let others redefine what we are.

Pandora hasn't just stolen a brand; they've deliberately confused the marketplace. Pandora CEO Joseph Kennedy claimed recently that Pandora is "one of the largest radio stations in every market in the country" during their last quarterly earnings call. Really?

Let's put Pandora side by side with a large radio operator like CBS Radio, which, just like Pandora, offers a variety of programming for the audience to the same market. Pandora shrinks in comparison. The only thing in Pandora's box,

omnia

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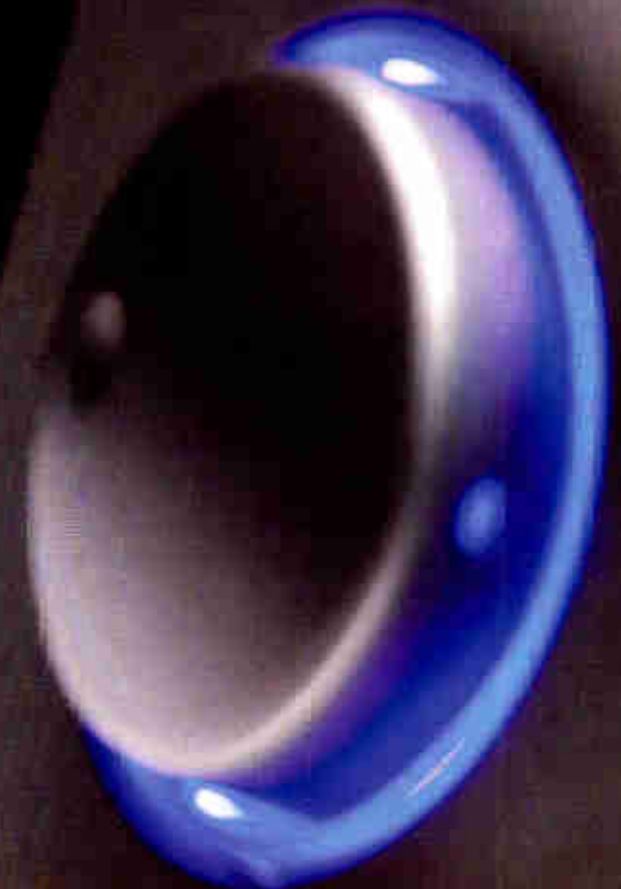
Release Offset

5.6

Gate Offset

-4.0 dB

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Diving Into Social? Check the Water First

Be Realistic About What We Can Accomplish With These Tools

BY MARK LAPIDUS

Because Twitter, Facebook, LinkedIn and other social media platforms are the darlings of the media world, the radio industry is spending substantial time, and in some cases money, trying to join the party.

There are excellent reasons to participate, but we must be realistic about what we can accomplish and how we can utilize these tools to drive ratings and revenue.

The goal of this overview is to motivate your top managers to have an informed discussion about how deeply you should delve into social media.

INVEST IN EXPERTISE

If you decide to go all in, you should not rely on someone who simply uses Facebook a lot, or who "lives" on Twitter. It's not uncommon to find that

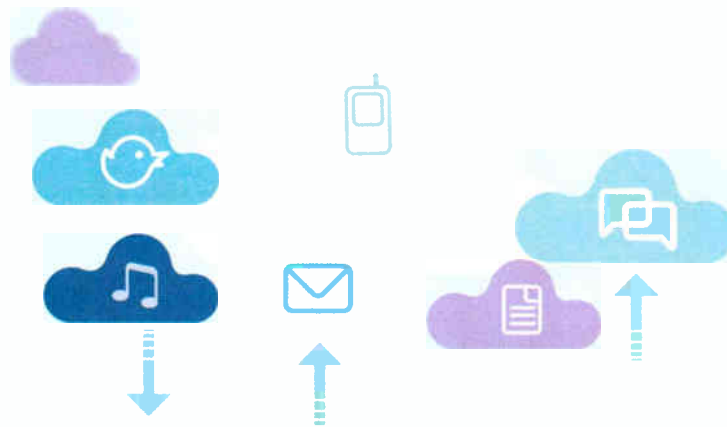
With so much noise about Facebook and Twitter, it takes a strong leader to remind staff that these are just complimentary features.

the person at a radio station in charge of social media is in that position simply as a volunteer, or because he or she has the rudimentary knowledge about how to share material.

When you hear someone say either, "I'm a social media expert" or "Here's a list of social media best practices," get details about his experience.

True social media experts are rare, and many so-called "best practices" in social media turn out to be nothing more than a series of habits, which lack real research or bona-fide statistical evidence pointing to their efficacy in the business realm.

How does one locate a social media



istockphoto/Jesus Sanz

PROMO POWER



Mark Lapidus

"expert?" With some exceptions, those who really know how to manipulate social media have had the necessary financial funding to access or execute perceptual and focus group studies. An expert in the social media field will also have had extensive experience utilizing several of the top real-time Web topic measurement tools, which are expensive and typically affordable only to major agencies and big brands.

Hiring a qualified consultant with a portfolio of success stories can drive fast, measureable results. Which brings us to my main point: If your social media strategy isn't structured to drive ratings or revenue, your investment in this area should be small.

You may still want to participate, but you should do so while creating boundaries in terms of staff time spent on social media and on-air emphasis in promoting these platforms. Having a strong community on Twitter may be a great way to build loyalty for your morning team; just make sure the morning crew doesn't spend so much time tweeting about themselves that the show's actual content suffers.

It is vital to discuss and strategize how to deal with social media issues. But no matter how far you decide to go with social media, remember that your number one communication asset is still your own airwaves. With so much noise about Facebook and Twitter, it takes a strong leader to remind staff that these are just complimentary features.

Mark Lapidus is president of Lapidus Media. Email marklapidus@verizon.net.

SOCIAL SAVVY

Here are just a few issues you are likely to encounter sooner or later on these platforms:

1. Racism and sexism from people who post. What's your plan when hate messages appear in comments on your station-sanctioned Facebook page? Do you have someone monitoring the comments regularly? If so, have you directed them to remove questionable statements, or do you want them to engage in discussion?
2. What's your plan to deal with on-air talent who tweet or re-tweet "news" that was not verified and has the potential to create conflict?
3. Will your on-air talent be permitted to maintain "personal" Facebook pages and/or Twitter accounts that they use only for friends and family?
4. If copyrighted material (like photos) gets posted by
5. your staff, who takes it down? (Attribution is not enough to protect you).
6. Who holds passwords to your social media accounts? If the person who set the accounts up suddenly departs your organization, are they able to hold you hostage?
7. Who determines how often your station posts to Facebook or tweets? Who is in charge of tweeting back to someone who tweets to you?
8. Who monitors your analytics?
9. Who answers questions posted on Facebook?
10. How does your social media plan integrate with your SMS (text messaging) plan?
10. How do your social media assets tie to your website?



1664: Just what it looks like. Two tin cups and a string. But it transmitted sound!



1876: Alexander Graham Bell's commercially viable telephone.



1900: Phones become fixtures in more well-to-do and steam-punk homes.



1920: Every home is working toward having a telephone!



1936: The advent of the dial desk phone. No more asking the operator to connect you.



1963: Push buttons usher in the thoroughly modern world. Touch tones enter pop culture.



1983: The mobile phone is a reality. Plots in all TV shows get a boost!



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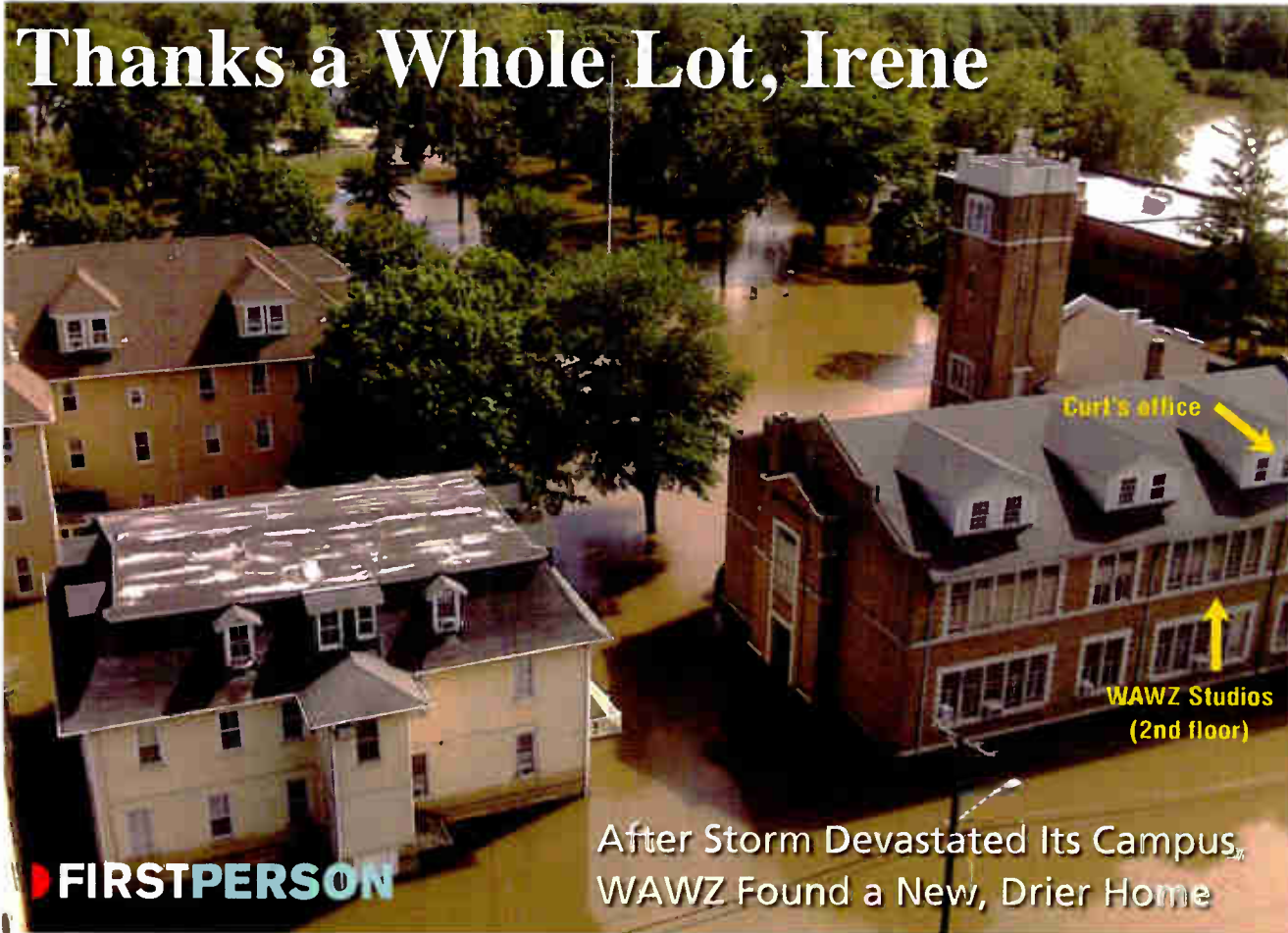
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Thanks a Whole Lot, Irene



After Storm Devastated Its Campus, WAWZ Found a New, Drier Home

Margaret Collier

FIRSTPERSON

BY CURT YENGST

Ever have one of those days? How about when “one of those days” for six months straight?

Those of us at WAWZ(FM) in Zarephath, N.J., were having “one of

those days” in August last year as we prepared to meet “that nasty girl,” as General Manager Rea Crawford calls her: Hurricane Irene. She was headed straight for the town, which has been home to our Christian radio station since 1931.

By the time it got to us it would be

A view of Irene’s work at the Zarephath campus taken from a water tower.

weakened to tropical storm level, but we were bracing for more than just a little wind and rain. Zarephath is only 60 feet above sea level, bordered to the north by

the Millstone River and to the south by the Delaware River and Raritan Canal.

Sure enough, by the time Irene was finished with us, Zarephath and the surrounding area — a campus that includes several other Pillar of Fire International ministries besides WAWZ(FM), as well as the Zarephath Christian Church and Somerset Christian College — were under almost eight feet of water.

The good news was that the residents had been evacuated. The bad news was that property damage was extensive.

WAWZ’s studios were on the second floor of a chapel building; we were spared the worst of the damage. The only casualty in terms of station equipment was our studio generator. Amazingly, the studios never lost power during the storm, despite the fact that the main distribution panel for the building was under water.

THE BUNKER EARNS ITS KEEP

To prevent the water damage from becoming mold damage, the first floor of every building on the campus eventually would have to be gutted. Hardwood floors would be uprooted and drywall and plaster removed, leaving the muddy campus looking like a war zone. The resulting pile of debris would dwarf most houses. Then there was the inevitable stench of muddy river sludge and mildew, making all but the heartiest unable to linger more than a few hours at a time.

So how did we continue broadcasting?

Fortunately, WAWZ has a fully functional backup studio at our transmitter site in Martinsville, N.J., 600 feet above sea level. We lovingly refer to this windowless slab of concrete behind our transmitter building as “The Bunker.” After all, that’s sort of what it was: a refuge and haven.

This was not the first time our facilities had been flooded. For decades Zarephath would flood with severe weather, most notably Hurricane Floyd in 1999, which caused as much damage as Irene.

After a particularly unforgiving Nor’easter in 2006 — one that flooded the basements and parking lot, and turned the adjoining Weston Canal Road into plain old Weston Canal — station management had decided something needed to be done to avoid broadcast interruption.

So in 2008 we looked at a 7-by-18-foot storage room attached to the back of our transmitter building that had housed paging transmitters during that industry’s heyday. As it happened, we’d been planning to remodel our main studio and would need temporary facilities

(continued on page 32)

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Inside this 2RU chassis beats the heart of a giant, with power to run two RAQ or DESQ consoles. Or maybe one of each? It's okay, we don't judge.

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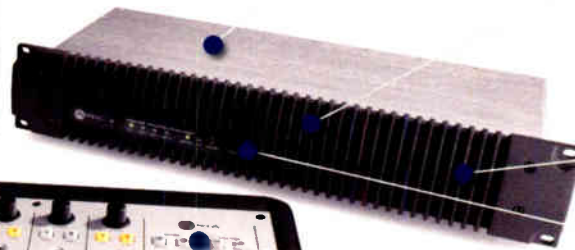
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The more you saw, the more convinced you were that IP consoles made sense for your station. Problem was, you had small spaces to work in. Some behemoth board that looks like a '78 Oldsmobile just wouldn't fit. But there was no way you'd settle for some cheap plastic PA mixer that looked like a refugee from the church basement. "Wouldn't it be great," you thought, "if someone made an IP console that didn't take up a whole room?"

Then you saw the new RAQ and DESQ consoles from Axia, and your problems were solved. With the power and features of a big console, but minus the ginormous space requirements. RAQ will drop right into those turrets in your news station's bullpen -

the reporters can send their finished stories right to the studio. And DESQ is perfect for the auxiliary production rooms.

But what sealed the deal was finding out you could run two RAQ or DESQ consoles with just one Axia QOR.16 mixing engine — you know, the one with all of the audio I/O, the power supply and the Ethernet switch built in. That brought the cost down so low that when you told your GM the price, he actually didn't swear at you (for once). Make another decision like this, and you might just be changing the sign on your door from "Chief Engineer" to "Genius."

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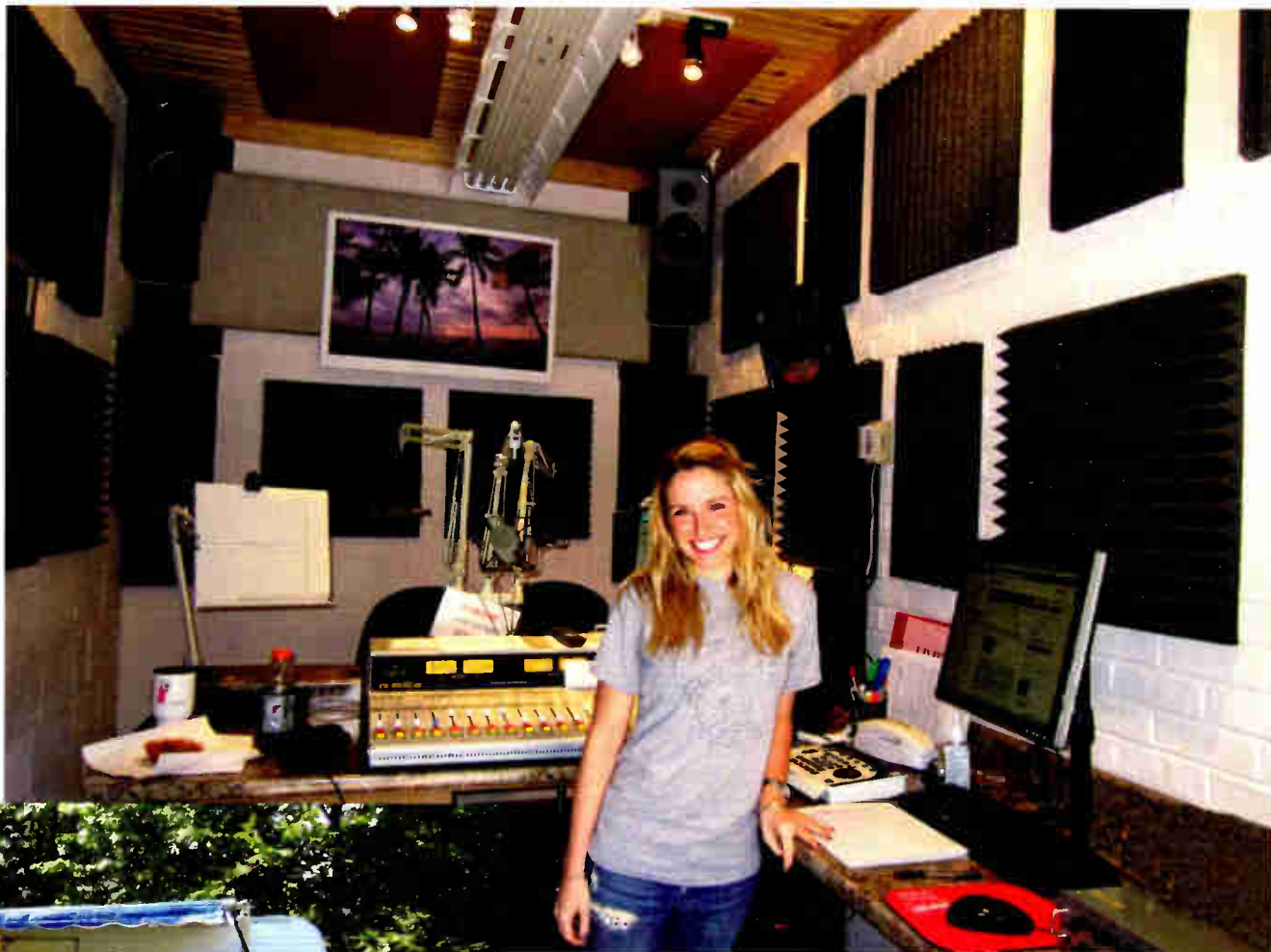
WAWZ

(continued from page 30)

anyway. We decided to build the new backup studio. This met the need for a temporary studio in the short term and would provide an emergency facility from then on (see "Renovations Bring WAWZ Into the 21st Century," Radio World, Oct. 8, 2008).

Years later, in the aftermath of Irene, The Bunker would earn its keep. We moved on-air operations there the night before the storm arrived in Somerset County, carrying a few pieces of production gear with us, and not knowing when we'd be allowed back at home base.

While this kept us on the air and gave us rudimentary production capabilities, it soon became clear that we needed more space. Thankfully, one of our listeners stepped up with a 30-foot travel trailer that he towed to our site and let Chief Engineer Ron Habegger and I equip with electrical and Internet service.



Above: Midday Host Betsy Spina in 'The Bunker'



Left: A listener volunteered this travel trailer to help provide space.

Below: Tom Bruemmer, Ron Habegger and Curt Yengst install furniture.

Once we were allowed back on campus, we collected a couple of production workstations and turned the RV into a production studio, complete with a kitchen and indoor bathroom — a major step up from the Port-a-John we had been using.

THERE'S NO PLACE LIKE HOME

Our home base at Zarephath continued to stink of mildew, diesel fuel and who knows what else.

On top of that, the mold abatement work had left everything covered in dust. Plus, it wasn't a question of if we'd ever get flooded again, but when. So now management reconsidered whether

(continued on page 34)



MEET THE AXIA FAMILY

IQ: The budget friendly expandable console packed with major-market features like automatic mix-minus, 4 stereo mix buses, built in phone integration and avionics grade switches, faders and displays. The IQ is expandable to 24 faders so, as your needs grow IQ can grow with you.



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WAWZ

(continued from page 32)

to move back.

We moved the studios off-campus again and began looking for available rental space. In the meantime, the second floor was given a good cleaning.

In November 2011, three months after the storm, we resumed broadcasting and production from Zarephath, with staff working across the street at the Children's Ministry Center. (The sales staff worked mostly from home, and the station manager worked from any Starbucks with Wi-Fi.)

Sadly, negotiations weren't going well with prospective new landlords. Building a radio station in an existing office space is sometimes easier said than done, especially when you're trying to explain your specific needs ("You want to put a window *where?*" "Why does that corner office need to be soundproof?").

Following some particularly disappointing meetings, our management team was at a loss. We are Christian broadcasters, after all, so we decided to hold a quick, impromptu prayer meeting; then we adjourned for the day.

As Rea Crawford was driving away from the prayer meeting, he happened to pass a local industrial development in neighboring Somerset, and glanced at the large office buildings there. He came upon the headquarters of Village Office Supply and he noticed that the Supply's parking lot didn't look very full for a building of its size. So he pulled in, entered the lobby and asked if they had any office space for rent.

Turns out, Village Office Supply had laid off about 50 employees two years earlier, and they hadn't yet decided what to do with the space. They'd considered renting it but were reluctant to deal with brokers, lawyers, etc.; but when we presented our situation, they decided to open their doors to us, allowing us to do whatever we needed to create the space we wanted. They even loaned us a couple of their delivery trucks for the move. It was a match made in heaven!

In January 2012, we signed the lease and construc-



Johnny Stone, at the board, and the morning crew, David and Stacey, enjoy the new studio.

tion began. On the week of Valentine's Day, we sent on-air staff back to that ever-romantic Bunker for a couple weeks, while Ron and I dismantled the old studio and, with the help of volunteers, painstakingly reconnected everything in our new studio, which is almost twice the size of the old one.

At last, after a labor-intensive several days, we began broadcasting from the new studios on Feb. 23 — without a hitch.

Since that successful first broadcast in our new temporary home, we've made plans to construct a building specifically for the radio station that will be

more permanent. And we've started a capital campaign to raise necessary funds. Meanwhile, after spending the last half-dozen months working from as many different locations, it's great to finally be back together again as one big, happy broadcast family.

Curt Yengst, CSRE, is assistant engineer at WAWZ(FM). For more on the history of the station, see the story "Rea Crawford Hits a Milestone" at radioworld.com, keyword WAWZ.

Thanks to Rea Crawford, LuAnn Schafer, Stacey Stone, Ron Habegger and David A. Dein for photo contributions.

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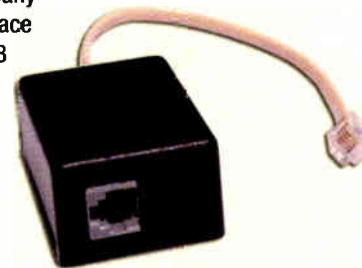
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Looking for a broadcast excerpt of a San Francisco Giant's taped off of KSFO radio from 1959, interviews with Willie Mays, Dusty Rhodes & some play by play excerpts, also features a homerun by Willie Mays and Felipe Alou stealing second base, running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

Looking for KFRC signoff radio broadcast from 1930 Andy Potter, running time is 0:22 & also the KLX kitchen the program guest is Susanne Caygill, a discussion of women's affairs with a long promotion for Caygill's appearance

at a local store. Anne Truax, Susanne Caygill, running time is 13:44. Ron, 925-284-5428 or email ronwtamm@yahoo.com.

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'Terrestrial' Radio Still Relevant to Many

AM/FM Broadcast Embraced by Older Generation of Listeners

COMMENTARY

BY HARRY HOYLER

The author is general manager of KKAY, an AM station in Baton Rouge, La.

I find myself compelled to respond to the letter by Mr. Tim Britt in the March 1 issue of Radio World, "A Dim Radio Outlook."

Tim, I will agree with you that HD Radio may not gain traction. I do disagree with your assessment that terrestrial radio has no relevance to most people.

I am sure that a great many young people have no use whatsoever for AM or FM radio. I believe this to be a sad fact but times do change.

I have an AM station, mono and only a thousand watts day and 67 watts at night. My station does quite well because we provide what Pandora, MOG and the rest of the tech-na-junk won't provide: local programming.

We air youth sports, parades, on-the-spot events, very localized weather. We allow local officials instant access to our programming with the flip of a switch at the EOC, police department, fire department and a few other places.

Our only problem is the systematic destruction of AM radio by the FCC by not allowing standalone AMs first choice on LPFMs or AM translators,

and the refusal to drop all other rule making for radio until there is a quick solution to the problem.

You might think my listeners should jump to new technology. This probably will not happen because most of my listeners are elderly. Many don't even own computers. But they do shop and do business with our clients.

I just pray I don't live long enough to scan the AM or FM bands and hear silence.

I take issue with the supposedly "free" music on Pandora and the rest. This hurts the economy. Retailers are running out of advertising options. Print is cost-prohibitive for many of them, and in a lot of cases a weekly paper simply doesn't do.

We stream our audio and this is a help; so not all of the tech-na-junk is bad.

But the corporate giants are pushing for more ownership of stations, which would diminish local radio further. We recently had some bad weather in our area. Out of the 25+ stations in our mar-

ket only one was on top of the weather situation: We were. The others were too busy cutting costs with satellite programming. I found that even at 67 watts, we had some people who heard our broadcasts about the weather. This is the tragedy and life-threatening situation the FCC has created and continues to ignore.

We operate 24/7 and the phones are answered 24/7. We have announced lost children, way before an Amber Alert

can even be considered ... the elderly who go missing and lost pets. There has been many a night when the phone rings and it is someone who just needs a friend to speak with.

I doubt seriously your Pandora and MOG can provide very much of what I have just mentioned.

We're not "big city," just folks who love radio and enjoy being a vital part of our community in spite of the FCC, corporate giants and the tech-na-junk.

I grew up loving radio in the early 1950s with a little crystal set, something foreign to many people. I just pray I don't live long enough to scan the AM or FM bands and hear silence.

READER'S FORUM

SAVING BETHANY

Thank you for James O'Neal's article about the National Voice of America Museum of Broadcasting, Media Heritage and Gray History museums ("Museums Put VOA Bethany Site Back on Map," March 14).

On behalf of the Board of Directors, we appreciate the publicity and James' thoroughness. We will kick off our major fundraising campaign shortly. If you haven't done so yet, please look at www.voamuseum.org.

David Snyder
Bethany, Ohio



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READER'S FORUM**APPS FOR ENGINEERS**

Laura, regarding your request for engineering-friendly apps ("Apps for Engineers," Jan. 18), here's one to look at: GPS Essentials (for Android), which is free.

Set all the parameters to field your position at a tower site. It includes a beautiful, large, smooth magnetic and marine declination compass (which can be toggled), with declination offset — the only app I know off where you can calibrate your phone's compass too.

Hiking tracker, sunrise, sunset, moon rise/set; set local time, UTC time; see your GPS satellite positions in the sky in real time along with how many "birds" are flying in your view-sphere. (GPS must be phone-enabled in your settings.)

It even ties in with Google Maps, Google Earth or any other mapping app you have installed on your phone. I can even get

GPS Essentials

a minimum of three or four "birds" indoors with my HTC Inspire, which is way better than my Delorme Geomate can do. (It will track a fix on your bearing and location with a minimum of four "birds.") You can customize a "dashboard" to see as many fields as you want in a scrollable table without having to go into each backscreen.

A pro version is available for a fee, but the free version is comprehensive as it stands. One of the best GPS apps I've ever found. It works reliably and I haven't found any bugs. It uses the consumer GPS ground-measurement resolution.

Thanks for a great article in RW!

*Marvin Walther
Chief Engineer
Carroll Broadcasting
Tawas City, Mich.*

CHECK THE iSLIPSTICK

I wrote iSlipstick and iSlipstick RF to help me with basic everyday RF and electronic calculations. Having worked as a transmitter supervisor for 25 years at a CBS O&O installation in Philadelphia, I could have really used these apps back then.

I continue to work in an environment that requires RF and electronic calculations, so I put into these apps what I found to be most helpful for anyone working in the field.

I hope you find them useful and would love to hear feedback for improvements via www.carry-onsoftware.com.

*Sam Virgillo
Carry-On Software
Yardley, Pa.*



iSlipstick RF is among the apps developed by Sam Virgillo, a former transmitter supervisor.

A DIGITAL MULTIMETER FOR IOS DEVICES

One app for the iPhone that I don't think you have covered is iDVM by Redfish Instruments. It uses the phone as the display and interfaces to a wireless remote A/D converter box. Demo is free. I don't have the A/D box yet but it is on my wish list. Thanks for the articles!

*Paul Brown
Technical Director
KVIP Radio
Redding, Calif.*

iDVM by Redfish Instruments**APPS I FIND USEFUL**

I work as a broadcast engineer and electrician and have used several apps that help in both fields:

- AWG Metric Wire Converter by Intineo: Gives U.S. and metric wire equivalents
- Engineering Cookbook by Loren Cook Co.: If you're working with fans and motors to move cooling air etc.
- ElectroDroid by Demetrio Iero
- Electronica by Hacsoft Developments: Great pinouts, scales and other useful tools
- RF Tools -VSWR+ by QubeCAD
- ToneDef by Hacsoft Developments: Excellent tool for modems etc., RF and microwave program

Just look for them by name. Great programs.

*Nick Markowitz
Markowitz Electric and Integration
Verona, Pa.*

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US WEST & CANADA: David Carson, dcarson@nbmedia.com
T: 212-378-0400, ext. 511 | F: 866-572-6156
LATIN AMERICA: Susana Saibene, susana.saibene@gmail.com
T: +34-607-31-40-71
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ASIA-PACIFIC: Wengong Wang, wwg@imaschina.com
T: +86-755-83862930/4050 | F: +86-755-83862920
CLASSIFIEDS: David Carson, dcarson@nbmedia.com
T: 212-378-0400, ext. 511 | F: 866-572-6156

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