



# RADIO WORLD

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Huck Conrad led his LPFM operation down a unique path. — Page 20



## EAS Suppliers Ramp Up Production

Encoder/Decoder Makers Strive to Meet Increased Demand

BY RANDY J. STINE

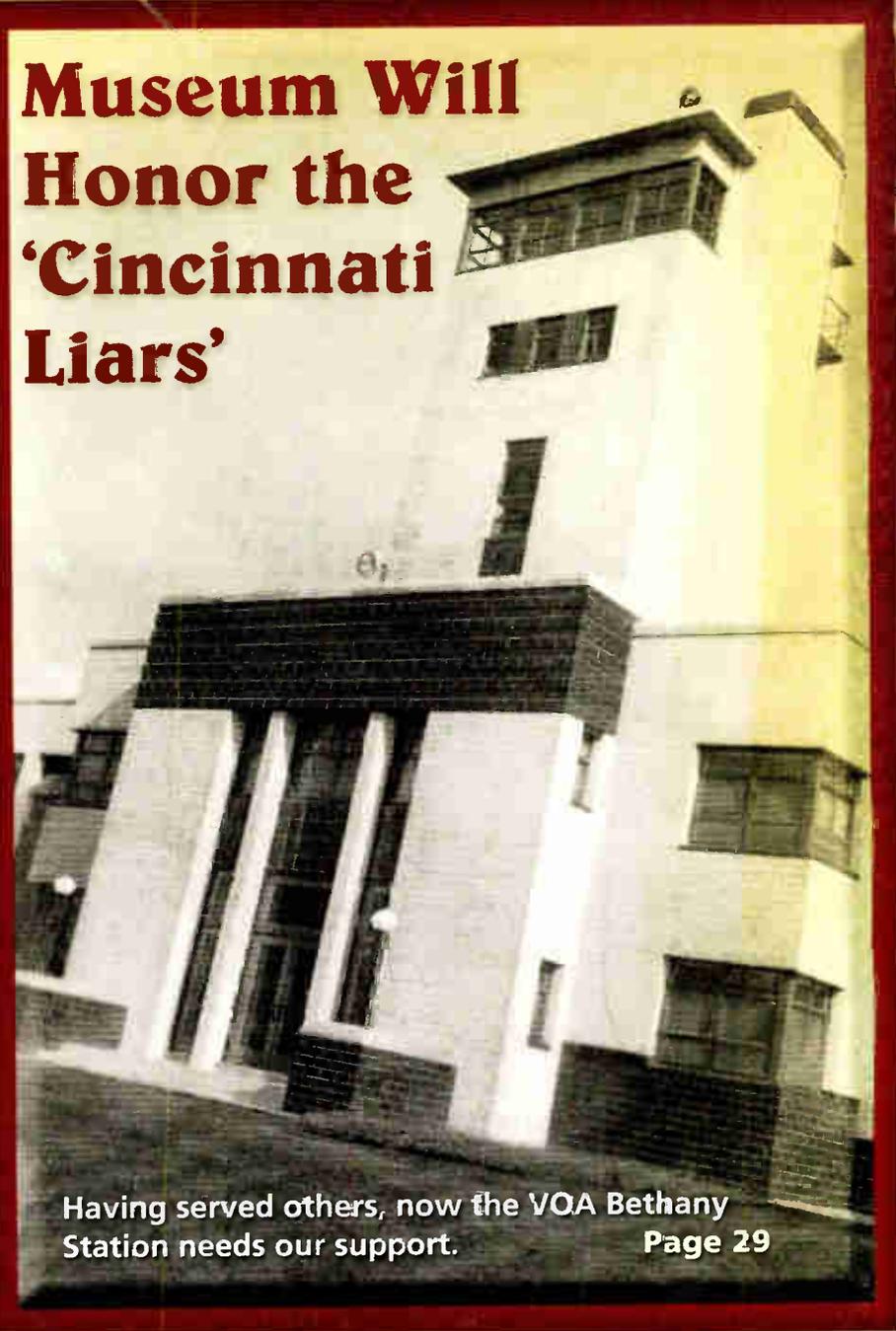
WASHINGTON — Emergency Alert System equipment manufacturers are being pushed to meet demand as the deadline for stations to begin receiving and transmitting Common Alerting Protocol messages nears.

The FCC has set Sept. 30, 2011, as a hard date for broadcasters to be able to receive and transmit CAP-enabled alerts. CAP is an XML-based data format for exchanging all-hazard emergency alerts and public warnings over all kinds of networks.

The commission could extend the deadline; however, it had not done so as of July. Numerous broadcasters favor

*(continued on page 6)*

## Museum Will Honor the 'Cincinnati Liars'



Having served others, now the VOA Bethany Station needs our support. Page 29

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Selected content from Radio World's "The Leslie Report" by News Editor/Washington Bureau Chief Leslie Stimson.

## GOUCHER CALLS FOR NATIONAL ALERTING GROUP, MORE TRAINING

Maine Association of Broadcasters President/CEO Suzanne Goucher says emergency alert originators need more training in next-gen EAS, and she thinks Congress should consider creating a national working group on alerting.

During a hearing on alerting before the Emergency Preparedness, Response & Communications Subcommittee of the House Homeland Security Committee, Goucher said it's great that FEMA plans to expand existing training for local emergency managers who originate alerts,



Photo by Leslie Stimson

Maine Association of Broadcasters President/CEO Suzanne Goucher, seen here in a webcast video, says emergency alert originators need more training in next-gen EAS.

because more is "desperately" needed. But she would like to see even more than what is planned.

Some local emergency managers don't know how or when to send an EAS message or just choose not to, she said, and either way, that situation is unacceptable.

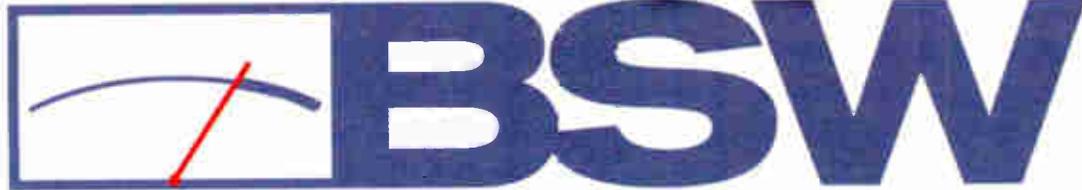
Broadcasters "stand ready to deliver the message, but first we need someone to deliver it to us," she told committee members, speaking on behalf of the National Association of Broadcasters in July.

FEMA Assistant Administrator for National Continuity Programs Damon Penn assured Rep. Laura Richardson, D-Calif., that the agency will expand its planned training for message originators. He said the challenge is not only to provide them access to the CAP-EAS system but to make sure the right kinds of messages go out, such as alerts, warnings and notifications.

But Goucher told subcommittee Chair Gus Bilirakis, R-Fla., that the planned FEMA

(continued on page 5)

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## NEWSROUNDUP

**NAB SEEKS CAP-EAS EXTENSION:** NAB asked the FCC to extend the deadline by which broadcasters must be able to accept Common Alerting Protocol-formatted EAS messages. In comments filed with the agency, NAB asked for a six-month extension. NAB said the current Sept. 30 deadline wouldn't give stations enough time to consider the rules adopted by the agency as they buy CAP-compliant EAS equipment. NAB also said it's uncertain if the FCC will certify EAS equipment, separate from FEMA's conformance testing. NAB believes it's also appropriate to extend the deadline because "the large majority of EAS message originators," like state and local authorities, "will not be prepared to send a CAP-enabled message for the foreseeable future." Reply comments were due Aug. 4 to Docket 04-296.

**AS DO STATE BROADCAST ASSOCIATIONS:** State broadcast associations representing the fifty states, the District of Columbia and Puerto Rico agree with NAB that the FCC should extend by 180 days the deadline by which broadcasters must be able to accept CAP-EAS messages. No broadcasters should be required to buy EAS gear with-

out knowing whether it will be FCC compliant, said the associations. Several religious licensees including Houston Christian Broadcasters, the Moody Bible Institute of Chicago and others are pushing for a one-year delay, saying it's impossible for non-profit, non-commercial broadcasters to meet the current deadline during a recession, when donations to their operations are down. Prometheus Radio Project also supports a year-long extension, saying the cost of buying new EAS equipment is a "significant burden" for many smaller, volunteer-run stations.

**MANUFACTURERS MIXED:** EAS equipment manufacturer Sage recommends the FCC keep the current deadline, but allow EAS participants to have "90 days (or Dec. 31, 2011, whichever is later), to actually begin receiving messages from the IPAWS server, and 90 days after a state plan is approved by the FCC to begin receiving state messages." This would give both stations and state emergency staffs more time to train their personnel on the new system, according to the manufacturer. Gorman-Redlich favors extending the equipment installation deadline by 18 months. Monroe Electronics believes the current deadline is sufficient.

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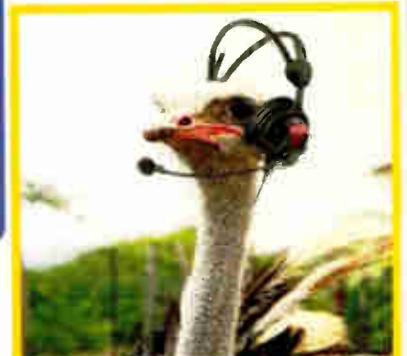
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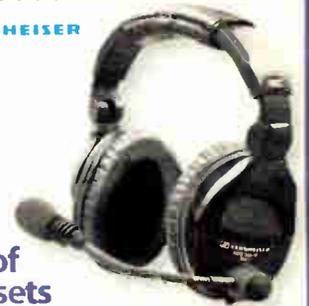
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Ben Foy  
WMCT radio

# You Talk, I'll Nap for a Bit



Readers Comment on This 'n That While I'm Off Building Sand Castles

I'm on vacation this week, playing with nephew and nieces in the sand at the Outer Banks of Virginia Beach. What better way to relax than to turn this page over to readers?

Here's a roundup of recent comments posted online about stories that appeared in Radio World and on our website in the last two months. Story headlines are in italics, reader comments in quotation marks:

*Hard-Disk Lawsuit Threatens Stations* — "When is the Patent Office going to be held accountable for all the money wasted because of the invalid patents that they keep granting?"

*Radio Netherlands Worldwide Seeks Help* (regarding big planned budget reductions) — "Please, please, don't cut the best international broadcast we have!"

*AM Coverage: Frequency vs. Conductivity* (a Richard Fry article in RW Engineering Extra) — "Of course, the optimum would be 50 kilowatts on 540 kHz. That would guarantee monster coverage of the 0.5 mV/m contour, along with massive signal intensities for quite some distance. It is however also of note that skywave is better on the higher frequencies: a 50 kW station on 1600 located in, say, Maine, would probably be heard in California more often at night than a 50 kWer on 540 in the same location."

*Voice of Russia Opens U.S. Studios* — "Excellent move for the Russians. In case you hadn't noticed, the world has changed. Being ranked No. 3 behind BBC and VOA is quite a statement. Where's Al Jazeera on this list?" (The organization said a Swiss survey had ranked it third in popularity after the BBC World Service and Voice of America.)

performance that continues its slide, this makes it even less significant."

*Ford Expands Sync AppLink Connectivity* — "They should fix all the bugs in the system before they start putting it into additional models."

*Mendes Comments on RW's BBG Report Story* (the director of engineering and technical services for the International Broadcasting Bureau had responded to a Radio World story about BBG's technology strategy; this reader then reacted to Mendes' comments) — "The phrase 'driven by audience habits and the relative costs of transmission' is telling. But I defy anyone to truly measure the relative cost of transmission accurately with international audiences. A SW transmission actually listened to by 10 listeners is worth 10 times more than an Internet story that 'bots' scan for inclusion in search engines 3,000 times and is read by one person, but how do you measure that? While it 'sounds' cheaper to ditch the expensive transmitters and go Internet only, what has been the listener experience for R[adio] Netherlands or R[adio] Sweden who have both ditched or severely limited radio transmissions in favor of Internet delivery?"

*It's Time for a Lighthouse Protocol* (Nick Leggett's suggestion to use the 30 to 300 GHz for local broadcasting) — "Um, rather, why not use millimeter-band communications for nationwide broadband, and leave AM, FM and TV bands alone?"

*Broadcasters Press FCC to Change Public File Rules* — "A student of ours asked for the public inspection file at Clear Channel Lancaster, Calif., and was told to get lost twice. A return visit got the same result with a witness present. Could be why the public gave up on trying to inspect files."

*Toyota Scion Expands Standard HD Radio Offerings in 2012 Models* — "Scion represents such a small percentage of cars sold that this won't even show up on the radar. Given Toyota's poor sales

*Johnston Laments FM Noise* — "I am pleased to see Steve [Johnston] is continuing his work on this persistent problem. His NAB

## FROM THE EDITOR



Paul McLane

presentation on the same topic last year was a real treat."

*N.Y. Pirates Soon May Walk the Plank Faster* — "Give them the LW band. Give them a section of TV Channel 5. New York, worry about muggers, burglars, drug dealers, scam artists, but radio pirates shouldn't even be on your agenda. What a waste of time. Yes, they are a pain, tell them to shut down (or at least move frequency) and take their hardware upon second warning. Simple enough."

*Station, Redefine Thyself* (Dan Slentz's commentary urging broadcasters to redefine what they do) — "Verizon has joined AT&T/T-Mobile in eliminating the unlimited data plans that make 'iPhones, Droids and myriad smart portable devices' so attractive. Without that unlimited, flat-rate data plan, costs to the end receiver will skyrocket, while traditional AM and FM (and TV) remain free for the listening."

*Fraunhofer Institute for Integrated Circuits: Developers of Audio Coding* (in Radio World Engineering Extra) — "Fraunhofer may be [a] good research institute but [it suffers from] expensive, not-well-marketed products and lack of customer support. ... I have had very bad experiences with a lot of Fraunhofer products in the domain of digital cinema."



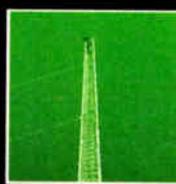
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AUGUST 10, 2011

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iStockphoto/Larry Merz

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**ALERTING***(continued from page 3)*

training will certify that someone can use FEMA's Internet aggregator to originate an alert. What is needed, she said, is a mechanism to give local emergency managers an incentive actually to use the EAS system. She suggested that grant funding for emergency management be tied to completion of training.

Goucher testified that stations are spending from \$1,200 to \$3,000 to upgrade EAS equipment. While group-owned, large-market stations can handle such costs, smaller, independently-owned broadcasters are finding the costs a hardship. Her state association "is looking at creative ways to help them afford" EAS gear, she said.

In Maine, Goucher said, "state coffers are bare." It would be helpful if FEMA would specify in its local and state grant guidelines that EAS equipment purchases are an acceptable use of federal grant money, she said, so states and local areas actually have the money, and training, to send CAP-compliant EAS alerts.

Creation of a national EAS working group would go a long way to helping message originators and alerting distributors get together and iron out problems, she said, but there's no mechanism for them to meet except in an informal way. She urged lawmakers to support creation of such a group.

I recall the FCC has an EAS advisory group that meets periodically, consisting of representatives of all the industries it regulates; but Goucher is suggesting on behalf of NAB a larger forum that would include all federal agencies responsible for alerting, the White House and representatives for state and local emergency management agencies.

Broadcasters also need credentialing from state and local authorities to allow them access to their studios and transmitter sites during emergencies. Congressional action on this issue would help broadcasters deliver vital information during emergencies, according to Goucher.

As he wrapped up the hearing, Rep. Bilirakis didn't say what, if anything, the next step would be.

**RADIO NOT ONLY ONE SEEKING MOBILE DEVICE TOEHOLD**

Much of that House subcommittee hearing about alerting was devoted to details of a Commercial Mobile Alert Service under development by the wireless industry — a 90-char-

acter, geo-targeted alert capability to let consumers carrying a mobile device know there's an imminent threat.

Lawmakers on the subcommittee were especially interested in whether urgent 911 text messages sent from mobile phones and other devices will actually reach 911 operators.

Chris Guttman-McCabe, a lobbyist for CTIA — The Wireless Association, assured lawmakers wireless providers could begin to roll out these features in April 2012.

Testimony on this issue from Jamie Barnett, chief of the FCC's Public Safety & Homeland Security Bureau, was chilling. During the massacre at Virginia Tech in 2007, students hiding from the gunman "had to be quiet, and they were texting 911. Those messages didn't go through," Barnett said.

The FCC is preparing a rulemaking on "next-gen 911" to enable the wireless delivery of video, still photos and text messages to 911 operators over mobile devices. Most 911 call centers are not set up for the necessary upgrades, including a broadband connection, that the technology would require, Barnett said, and the commission is trying to get a handle on those costs now.

Of course the subject of enabling FM chips in mobile phones came up.

Goucher said NAB is no longer asking for a congressional mandate but rather for "a little encouragement to

the wireless industry" from lawmakers.

Referring to the CMAS system under development by the wireless industry, Goucher said, "If you receive a 90-character text message, wouldn't it make sense to get all that from one device?"

This is a gem from the former radio news director: "For a tornado warning ... how long do I have before the tornado touches down, I grab Toto and get into the cellar?"

Wireless representative Guttman-McCabe was not so moved. He said there are 41 handsets on the market that have an FM chipset. He didn't say whether all of those actually worked in the United States, as opposed to Europe, where more mobile phones do have working radio chips. He also said radio is one of several industries clamoring to get their capabilities enabled in wireless devices. The paging industry and television also want DTV chips enabled in mobile devices.

After all those requests, "We decided to let consumers decide" what features they want in their cell phones, said Guttman-McCabe. "NAB has moved away from the desire to have a mandate. We think that's a good thing. We've gone from a few handsets [with FM chips] to 41. I think that's what consumers want."

Like automakers, wireless providers are only going to include features they think will help them sell the product to consumers.



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## EAS SUPPLY

(continued from page 1)

an extension, according to public comments filed with the agency, while manufacturers are split (see page 3). The date already was extended once, from March 29, 2011. An FCC spokesman declined to comment on the possibility of another deadline extension.

Meanwhile, manufacturers are completing compliance reviews and final reports on equipment that passes the IPAWS conformity assessment. Those that do are eligible for posting on FEMA's Responder Knowledge Base website at [www.rkb.us](http://www.rkb.us).

While EAS equipment manufacturers contacted for this story declined to release sales figures, one source familiar with the industry said it's likely that approximately 9,000 new CAP EAS encoders and decoders had been sold as of July.

"The number can't be much below 7,000 right now. I'd say between 50 to 70 percent of EAS participants have received new units or have them on order," the person said.

The industry veteran, who spoke on the condition of anonymity, estimates that of the 14,000 radio and TV EAS participants in this country, at least 3,000 likely share a unit with another station in their cluster. That leaves a total market of about \$25 million, he said.

Another industry executive, Harold Price, president of Sage Alerting Systems, said his company has seen the expected jump in sales this summer. To prepare, it placed advance orders for certain com-



**Harold Price of Sage, center, is shown at the spring NAB Show. He said the company 'told all of our suppliers that we'd have a sprint at the end, so everyone was prepared.'**

ponents that might have long lead times.

"We also told all of our suppliers that we'd have a sprint at the end, so everyone was prepared," said Price. "We use U.S. sources for our bare boards and build them up here. Soldering, electrical and visual inspection, sheet metal bending, punching, painting, final assembly and functional testing is all done in the U.S." He added: "We selected U.S. suppliers that could handle the burst."

Price, who believes the FCC deadline will not be changed, declined to release sales totals for Sage Alerting Systems but indicated they were on its projected target, "based on what we sold in 1996, increased competition and increased use of single Endecs controlling multiple stations."

increase significantly," said Bill Robertson, business development manager.

But, he continued, a number of broadcast groups large and small, have yet to place orders for CAP-compliant equipment.

"Several have waited for the Third Report & Order to be fleshed out — perhaps holding out that something would either change or create a discontinuity in current equipment that, if they purchased something before it was



**In July, Bill Robertson (also shown at NAB) estimated that Digital Alert Systems was processing hundreds of orders a week for broadcast radio and television customers.**

Digital Alert Systems manufactures emergency alert equipment including the DASDEC-II EAS/CAP messaging system. "We have seen orders for the DASDEC

settled, might render the purchase obsolete and they'd be forced to buy something again," Robertson said.

(continued on page 8)

## CAP CONVERTERS RAISE QUESTIONS

CAP converters are called "intermediary devices" by the commission. The validity of the converter approach has been a point of disagreement among EAS equipment manufacturers.

An intermediary device is integrated into an existing EAS system, essentially adding another receiver, according to the FCC. In its NPRM to change Part 11 rules, the commission asked whether it should allow such devices.

Some manufacturers dismiss converters as a cheap, temporary fix that will rely on original EAS equipment that could be 15 years old. Others believe converters are an economical solution for some stations.

Cost is a consideration for many broadcasters faced with replacing aging and non-compliant EAS equipment, one industry executive said, so converters may be attractive. Various vendor sites show the Gorman-Redlich CAP-DEC1 converter listing for \$1,350, and TFT's CAP-EAS converter 3320 at \$1,600. New CAP-compliant encoder/decoders list for \$2,695 or higher depending on configuration. But all of these prices are retail and don't reflect presumed discounts being negotiated, particularly by group buyers.

Several EAS equipment manufacturers contacted

by Radio World believe the FCC will allow intermediary devices once it is done reviewing public comments to its NPRM to change Part 11 rules (Docket 04-296).

"Absolutely the commission will allow CAP converter devices. I don't know of any argument they can make against them," said Darryl Parker, senior vice president of TFT Inc., which makes both converters and encoder/decoders.

Some manufacturers contend that a CAP-to-EAS converter may not be a viable application because it won't be able to handle the "Governor Must Carry" message, which will be a part of an enhanced EAS system but isn't yet standardized.

Parker said TFT's Model 3320 CAP-to-EAS Converter will convert the Governor Must-Carry message.

FEMA earlier this year revised the tests for CAP 1.2 compliance to accommodate CAP converters, said Jim Gorman, president of Gorman-Redlich Mfg. Co. There are several CAP converters listed among the hardware that has passed the IPAWS conformity assessment. FEMA's Responder Knowledge Base website is at [www.rkb.us](http://www.rkb.us). The site provides access to product test results.

Bill Robertson, business development manager for Digital Alert Systems, said his company doesn't

offer converters.

"There has apparently been some pressure to allow intermediary devices with the thought that they either reduce cost or provide some other advantage over an integrated CAP EAS unit," he said.

"We strongly believe there are some serious flaws to that logic. Even if the FCC allows these so-called intermediary devices, we do not feel they are a wise investment for both economic and operational reasons.

"Economically, the market pricing of basic EAS CAP encoder/decoders has been driven down to levels that are not too far off from an intermediary CAP-only box," he continued.

"Further, there may be additional equipment needed for the converter box — like an IP router or relay cables or signal bypass units for to handle the Governor Must Carry. All these drive up the price of intermediary devices close to and (in one case we know) over the price of an integrated EAS CAP encoder decoder. So it's not entirely clear a broadcaster will save money with an intermediary device — both in the short term and even less likely in the long-term."

— Randy Stine

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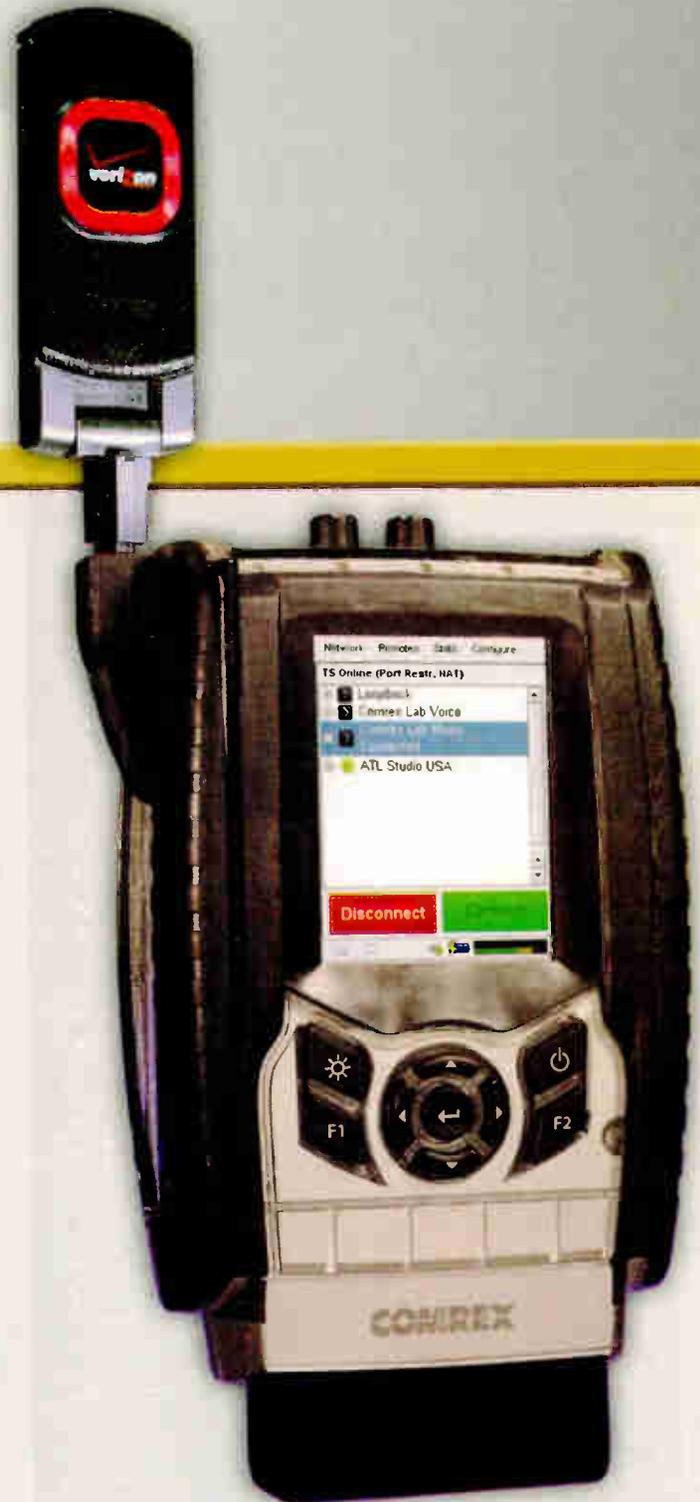
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## EAS SUPPLY

(continued from page 6)

"Others have counted on further extensions, and a small number have told me directly they'll take their chances with the FCC and won't buy anything now."

Digital Alert Systems began planning for the increase in production well in advance of the compliance deadline, Robertson said, anticipating the FCC's desire to maintain the Sept. 30 deadline.

"All indications we have at present are the commission desires to keep the current date unless some truly extraordinary circumstances arise. Moreover, we believe now it would be harder to justify an extension since there are multiple products on the market that are IPAWS-conformant and FCC-certified." The Integrated Public Alert and Warning System is the federal government's new emergency messaging system, which will use multiple platforms for warning, including cell phones and the Internet along with traditional broadcast.

In July Robertson estimated that his company was processing hundreds of orders a week for broadcast radio and television customers. It added technical support staff to assist customers.

"These new devices and future interfaces are IP-based, so our new hires have extensive networking certifications and experience."

### PREPARATION

Darryl Parker, senior vice president of TFT Inc., which makes CAP-compliant encoder/decoders and converters, said his company has seen a "slight increase" in demand this summer.

"EAS participants are using this initiative to strengthen their EAS flexibility. Some are adding EAS encoders for additional streams or unique switching requirements, Parker said. "EAS participants seemingly are doing routine upgrading but not panicking in light of the deadline."

TFT, which hired employees to strengthen support and test operations for the new equipment rollout, announced earlier this year that FEMA added the TFT model 3320 CAP-to-EAS converter to the conformity assessment list. The TFT converter is placed in front of an existing encoder/decoder.

But still unclear is whether the FCC is going to allow stations to use CAP converter devices. The commission asked about allowing converters in its NPRM to change Part 11 rules (see sidebar, page 6). Initial public comments were due by July 20 to Docket 04-296 and reply comments by Aug. 4.

Such unanswered questions make Parker think the September compliance deadline will be moved again.

"I don't think it will be maintained. Neither the FCC nor FEMA are ready for the deadline this fall. The FCC will not have issued a Report and Order on the open Further Notice of Proposed Rulemaking for Part 11" by then.

Gorman-Redlich Mfg. Co., which makes the CAP-DECI converter, has built up inventory to handle the demand this summer, said President Jim Gorman. He is another industry vet who believes the FCC will again extend the CAP deadline for participant compliance.

Meanwhile, equipment dealers contacted for this article also have seen a nice bump in sales numbers thanks to EAS purchases.

Matt Cauthen, sales manager for SCMS Inc., said, "Sales have been very brisk. We've been getting lots of questions about the deadline moving or availability of equipment."

EAS equipment sales at BSW have been very good, said Sales Manager Shannon Nichols. "Broadcasters are especially interested in software upgrades if there are any changes made [to the EAS rules] down the road."

As for delivery, Cauthen said SCMS had hundreds of CAP-ready EAS units on backorder but expected to have all cleared by mid-August. "No one is panicking. We expect to be able to fill all EAS equipment orders by the FCC's deadline," Cauthen said.

At BSW, orders for Sage gear placed in July were expected to ship by the end of August while Digital Alert Systems units were backordered about two weeks from date of order, Nichols said.

The stimulus effect of the EAS CAP process on broadcast equipment sales may be felt beyond the deadline.

In June, writing in a blog, Radio World U.S. Editor in Chief Paul McLane quoted Steve Davis, Clear Channel Radio's senior vice president of engineering and capital management, saying Clear Channel had adopted a tiered approach to its rollout and that equipment was on order to arrive in July and August. Clear Channel chose Sage gear.

The initial phase involves 246 new units that will allow Clear Channel to meet the compliance deadline for all of its approximately 890 stations. "We will undertake a second rollout in 2012 to add enhanced functionality once the [Governor] 'Must Carry' rules are solidified," Davis stated.

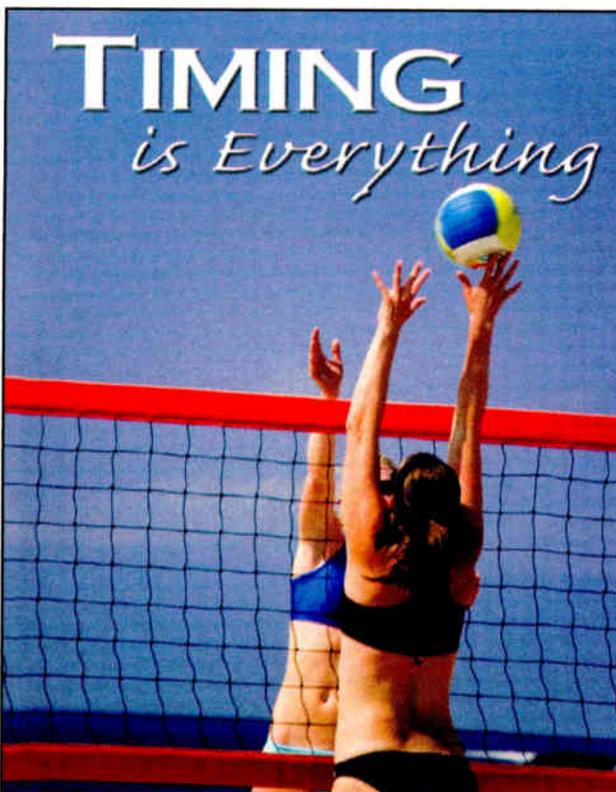
## NEWS ROUNDUP

**FRANKEN FMS:** The FCC has established a hard deadline for LPTVs, Class A TV stations and TV translators to stop analog operations and convert to digital. The decision means radio could be living with so-called "Franken FMs," LPTVs on Ch 6 using or leasing their analog aural carrier on 87.7 MHz, until 2015. The FCC rejected re-purposing analog TV Ch 6 as part of the FM band, "apparently deciding to maintain this channel for TV use for the foreseeable future," according to Davis Wright Tremaine attorney David Oxenford. "The FCC did note, however, that LPTV stations, as secondary stations, must protect full-power FM operations in the noncommercial band.

### LPFM MARKET 'TIERS' PROPOSED:

To resolve how many new LPFMs and FM translators can fit in each market, the FCC proposed LPFM "channel floors," based on market size, in the top 150 radio markets. It also proposes to dismiss pending FM translator applications in markets where there's not enough spectrum for LPFMs, but to process translator applications in markets that meet the LPFM channel floors. The proposed tiers are eight LPFMs in the top 20 markets, seven LPFMs in markets 21-50, six LPFMs in markets 51-100 and five LPFMs in markets 101-150. FCC Audio Division Chief Peter Doyle told Radio World going by this formula, about half of the pending translator applications in the top 50 markets would be dismissed.

**2012 LPFM WINDOW:** The FCC hopes to open an application window for new LPFMs by summer of 2012. It also plans to drop the planned cap on FM translators that one organization can have and is taking public comments on these goals to Dockets 99-25 and 07-172. The agency also asks for comment on ways to prevent trafficking.



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# FEMA Drafting EAS Best Practices

Federal Agencies Preparing Stations, Others for Upcoming National EAS Test

**WASHINGTON** — In its quest to create a more functional and resilient Emergency Alert System, the Federal Emergency Management Agency and its federal partners the National Oceanic and Atmospheric Administration and the Federal Communications Commission, are planning a nationwide test of the presidential alert code on Nov. 9.

To prepare broadcasters and other test participants for that exercise, FEMA has begun crafting a set of best practices related to EAS antennas, receivers/tuners and equipment installation and configuration. It is working with broadcast and cable associations, local governments and other EAS participants in doing so.

You can contribute to the discussion at the National Dialogue on the EAS website at [nationaldialogue-emergencyalertsystem.ideascale.com](http://nationaldialogue-emergencyalertsystem.ideascale.com).

FEMA hopes to have a draft of the best practices ready for discussion during a webinar planned for Aug. 15. A Sept. 1 webinar is slated to cover EAS equipment operation and maintenance.

The national test "is not a pass or fail measure," nor will it test Common Alerting Protocol equipment or procedures, according to Manny Centeno, EAS test program manager for the Federal Emergency Management Agency's Integrated Public Alert and Warning System.

Those who originate alerts should make sure messages are clear and free of distortion. Centeno said during a webinar in July, describing one of the draft best practices. While that advice may sound basic, "The audio will go through several levels" as a message moves through the EAS system, he said. "There will be degradation, so we need to make sure it starts clean."

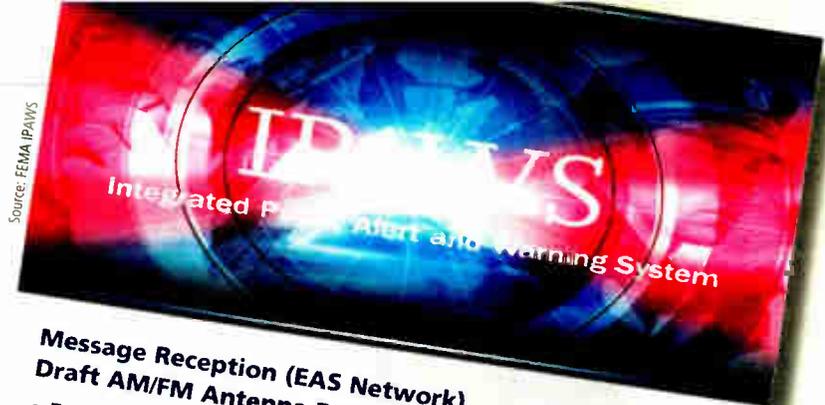
FEMA notes that EAS message reception at stations is more challenging in rural environments and in locations subject to manmade electric noise sources such as dimmers, overhead power lines, computers and electric motors including those on fans, blowers and compressors. Some of the best practices under discussion would mitigate these challenges to AM and FM reception.

Tips include evaluating your signal acquisition needs; selecting a suitable antenna; using an external antenna whenever possible; and using a whip or loop antenna for AM and a directional antenna for FM.

Using these antennas, "you're stacking the odds so you have a better signal coming into your EAS receiver," Centeno said, and are better able to transmit an audible alert to the next station in the chain and/or to the public. See more of the recommendations at right.

One more note about the upcoming national EAS test: the Washington, DC location code will be used for the originating message. Centeno said most EAS encoders/decoders can relay the Emergency Action Notification that will originate out of FEMA without stations needing to re-program the device, adding that more information on the EAN will be forthcoming.

— Leslie Stimson



Source: FEMA IPAWS

## Message Reception (EAS Network) Draft AM/FM Antenna Best Practices

- Evaluate your signal acquisition needs and select a suitable antenna.
- Whenever possible, use an exterior antenna for better performance.
- For AM, a tuned whip or tuned loop antenna may prove useful.
- For locations with high station density, a directional antenna may be preferable.
- Observe proper grounding.
- Use high-quality, low-loss coax to reduce signal loss and interference.

## Message Reception (EAS Network) Draft Receiver/Tuner Selection General Best Practices

- The use of a high-quality tuner or receiver is highly desirable.
- Select a tuner/receiver with good sensitivity and selectivity.
- Select a receiver/tuner with external antenna inputs.
- Ensure that the receiver/tuner has appropriate audio output connections.

## Overview of EAS Equipment Installation and Configuration Draft EAS Device General Best Practices

- Conduct Required Weekly Tests and Required Monthly Tests, as required.
- These actions test the encoder and audio output of the EAS device to the air chain. These also check for contact closures/GPI interfaces and serial outputs for text crawl, etc.
- Ensure EAS device audio inputs and outputs are in working order.
- Alert audio input circuitry could have been compromised unknowingly.
- This is important if you do not receive regular alerts or tests (especially for LP-1 and other primaries). Check for proper grounding.
- Ensure that your monitoring source (tuner/receiver, etc.) is feeding clear audio to the EAS device.
- Most EAS devices allow for monitoring through the device's internal speaker.
- Audio presence and quality can also be checked at the input terminals of the EAS device.
- If your facility is a primary EAS participant (LP, SP, etc.), ask your alerting authorities to conduct coordinated tests (even if these are not placed on-air).
- Doing this exercises the decoder functions of your EAS device.
- If your facility receives alerts from other EAS participant relays (radio, television, cable), as described in your State EAS Plan, ensure that you are receiving their RWT and RMTs (check the device's logs or printouts).
- If you are not receiving these test messages, alert your EAS source stations and check your receiver/tuner and other source devices.
- If your receiver/tuner is working properly, contact your relay or activation source and let them know you are not receiving their RWT/RMTs.
- Ensure the correct state and county FIPS Codes are programmed.
- Ensure the station call sign is programmed.
- Ensure that the appropriate Originator and Event Codes are programmed for forwarding/relay.
- Check the EAS device for Automatic/Manual message relay setting. Set to your facility's desired action.
- Check auxiliary or other necessary external equipment, such as distribution amplifiers, audio switching equipment, text crawl generators for proper connections and operation.
- Periodically check the operation of the device printer (if one is included) or log output to a PC.
- It has been discovered that some devices reboot when alerts are received. Check power supplies for proper operation.
- Check and adjust all audio levels to and from the device to minimize distortion and noise.

To contribute to the Best Practices Guide, visit [nationaldialogue-emergencyalertsystem.ideascale.com](http://nationaldialogue-emergencyalertsystem.ideascale.com).

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# Track Down That Studio Whine

It's There, All Right, Though You Might Not Be Able to Hear It

Alan Peterson, production director at the Radio America Network in Arlington, Va., was puzzled by an unusually strong whine that kept showing up in voiceovers and short-feature recordings made in one of

## WORKBENCH

by John Bisset

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the network's production studios. The whine was, for the most part, inaudible, revealed only when his editing software was switched to Spectral Mode.

In that mode, it would show up as a strong band just a little under 16 kHz; see Fig. 1.

At that frequency it would have been brick-walled before heading up to the satellite. Still, it was a stray signal that should not have been there. It was present only when a mic was open.

Alan swept the room with a precision flat-response Earthworks microphone. He pointed it into every duct, device, rack and cabinet.

When he pointed the mic towards an older CRT-type TV set in the studio, running 24/7 to capture news audio, his levels went off the scale. Turns out that the horizontal oscillator, operating right around 15.6 kHz, is the culprit. When the TV was turned off, the whine disappeared.



Fig. 1: The 15.6 kHz 'mystery whine' in Al Peterson's production studio. You could hang a picture on that straight line.

"This was a sound all of us could hear as kids," Alan says. "Now, as adults, most of us don't hear it anymore, so it gets ignored. Flat-screen TV users have likely never heard it."

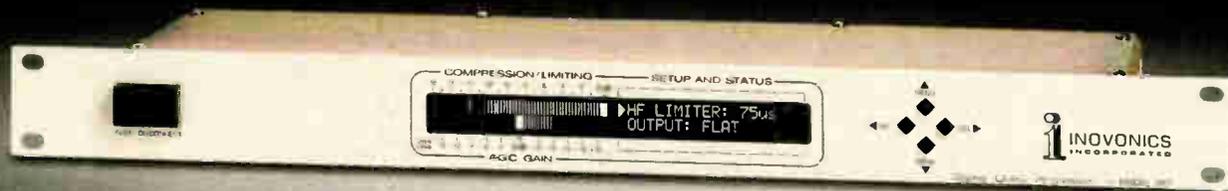
He notes that many radio newsrooms around the country have TVs on in the background. If these are CRT units, the same condition could happen.

If audio purity is your goal — and until flat-screen



Fig. 2: Mother Nature takes a swipe at an AM tower. The top section eventually broke free.

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units replace all your obsolete tube sets — check that the horizontal oscillator isn't adding noise to your studio.

You know, there was a day when stations were required to conduct an Annual

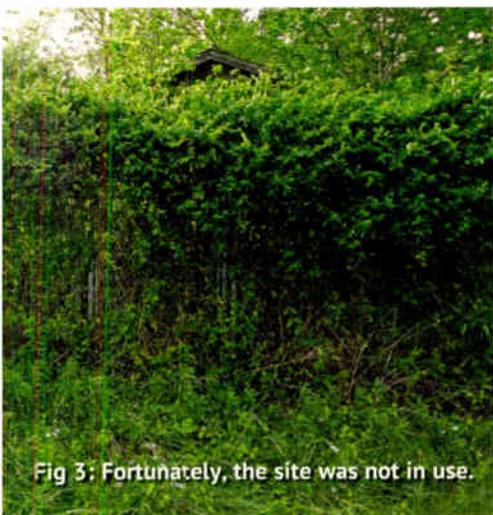


Fig 3: Fortunately, the site was not in use.

Equipment Performance Test that would “proof” out the audio air chain.

Such a test undoubtedly would miss the cause of Alan’s problem; with a proof, the audio oscillator is fed directly into the console microphone input, thereby bypassing the mic and any noises generated in the studio. But for engineers who performed these annual tests, hum, noises and distortion were pretty obvious and could be corrected.

No one seems to have the spare time to conduct a proof nowadays, unless there’s some glaring problem with the audio. Nonetheless, spending even a half hour monitoring the off-air signal with a good pair of headphones can provide some level of confidence as to the quality of your signal.

Reach Alan at [apeterson@radioamerica.org](mailto:apeterson@radioamerica.org).

It seems that storms have plagued pretty much every corner of the continental United States the last few months.

Engineer Chris Adams snapped (pardon the pun) the pictures seen in Figs. 2 and 3 after a severe one moved through Tennessee. The first image documents wind damage. The tower was swaying back and forth as Chris took the pictures; eventually the hanging section broke off. It was gone several days later. A number of nearby homes also were damaged in the storm.

Fortunately, the AM structure hasn’t been used in a number of years, as suggested by Fig. 3.

It’s tempting to blow up one of these pictures and tape it to the office door with a note: “Gone to check the transmitter site!”

Chris Adams can be reached at [christopherhadams@yahoo.com](mailto:christopherhadams@yahoo.com).

Wayne Eckert is president of Channel 1 Images ([www.channellimages.com](http://www.channellimages.com)). He offers a point of

clarification about our “green trumps white” segment at the end of the July 1 *Workbench*.

The white “Euro” connector does not in fact have a screw that makes contact with the wire. Instead, the screw pushes down on a brass tab within the port of the connector, which in turn makes contact with the wire, in a manner similar to a Phoenix connector’s. As such, it will not damage the wire in the manner described.

Contributor Paul Sagi writes that he enlarged the photo of the connector and found the construction as described. Paul goes on to say that the connectors



Fig. 4: This ‘Euro’ connector has a screw that pushes down on a brass tab within the port. The tab makes contact with the wire.

he buys from supply houses in Kuala Lumpur lack the brass tab.

Thanks to both. Paul Sagi can be reached at [pksagi92@gmail.com](mailto:pksagi92@gmail.com). Wayne Eckert can be reached at [w.eckert@channellimages.com](mailto:w.eckert@channellimages.com).

Wayne and Paul bring up good points. In an effort to lower manufacturing costs, some vendors may lower the quality of their components. Check parts carefully.

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# Netbook + Cheap Software + Handheld Recorder

Wherein the Warrior Finds Big Capacities In Small Low-Cost/No-Cost Packages

BY PAUL KAMINSKI

Can a netbook computer be used as a serious radio news tool?

Can an open-source (read: free) audio editing program be used to produce short- and longer-form radio news submissions?

## RADIO ROAD WARRIOR

Columns are archived at [radioworld.com](http://radioworld.com)

In May 2010, I purchased an Asus Eee "netbook" with Windows 7 starter operating system, a 1.6 GHz Atom processor and a 250 GB HD in two partitions, with 1 GB PC6400 800 MHz RAM out of the box. The Eee also was equipped with an onboard SD card reader, three USB 2.0 ports, RJ-45 Ethernet, 802.11 b/g/n wireless, touchpad, webcam and a VGA video port as well as audio inputs and outputs on 3.5 mm TRS mini jacks.

The battery life ranges anywhere from 5 hours to an advertised 8.5 hours; if one attaches power-guzzling USB peripherals like an external hard disk drive with two USB ports, the additional AC power adapter is all but necessary.

### BEEFING UP THE NETBOOK

When using multiple programs, the Eee is a little slow compared to computers with quicker Pentium and Celeron

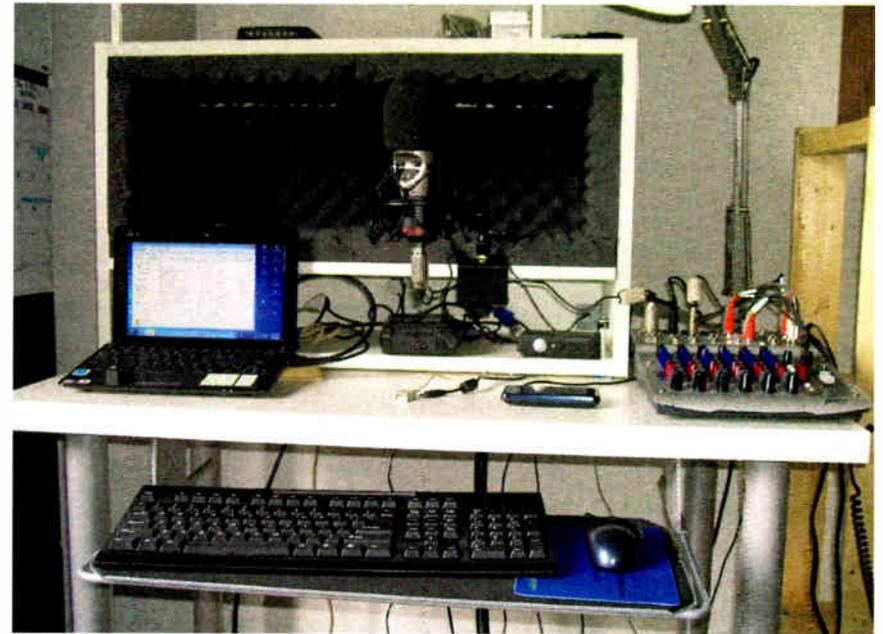
processors. The Windows ReadyBoost feature allows the caching of files on a USB drive or other removable media if that option is selected when installing those devices.

I began using a 2 GB SDHC card in the card reader for ReadyBoost, and it helped the speed somewhat. I upgraded the RAM to the system max of 2 GB, which speeds up the processing. I also replaced the 2 GB SDHC card with an 8 GB SDHC card. I divided the card space between ReadyBoost (up to the card maximum of 4 GB) and the remainder of the card capacity for the Audacity temp file. Audio files (and Solitaire) loaded faster once I made the change.

For this column, Olympus provided me with their small, pocket-sized LS-11 audio recorder for use. I have an LS-10 as a backup recorder, so I was interested in the changes to their small format audio recorder family and wanted to test the LS-11 during Speedweeks at Daytona International Speedway.

The LS-11 has 8 GB of onboard memory and has additional capacity via an SDHC card. The onboard 8 GB allowed me to record up to 25 hours of 16-bit, 44.1 kHz mono WAV files. The LS-10 will only record in stereo. The LS-11 has basic track divide editing and can transfer files via a 2.0 USB interface. Mono WAV files take up 5 MB per minute, stereo 10 MB.

If you work on deadline, you can



The Warrior's home-made studio rig, replete with his Asus Eee netbook.

save time when voice tracks load into audio editing programs by recording in mono, assuming your recorders have that capability.

I record all of my voice tracks, actualities and natural sound in WAV (16-bit, 44.1 kHz sampling rate, CD quality) and convert the finished product to MP3 to send or upload it. Some newsroom management systems may not like 128 kbps MP3 encoded files. I find files of 128 kbps travel well by either FTP/email. Since they are only one generation compressed from the original, the files so transmitted or accessed are less likely to exhibit artifacts.

### AUDACITY RAVES

Many years ago, the license for my Cool Edit audio editing program expired about the same time that my laptop became uneconomically repairable. Facing the possibility of buying a replacement laptop or buying a copy of Cool Edit's successor Audacity, I took a look at Audacity, an open-source (again, free) audio editing program

I've happily used it to produce my syndicated Motor Sports Radio Network programs and news reports for CBS News Radio. The Audacity community has an active user forum for those who

(continued on page 18)

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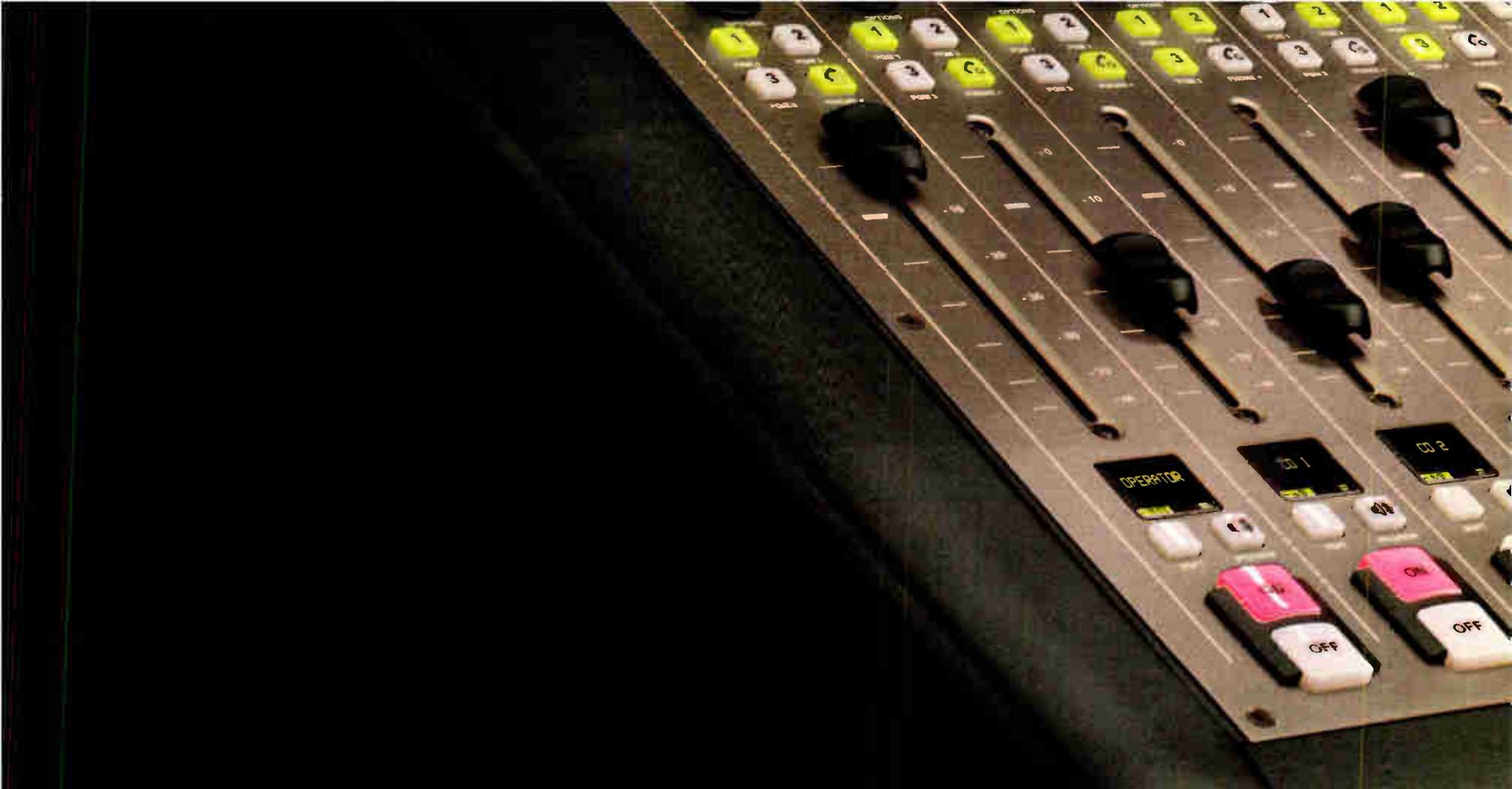
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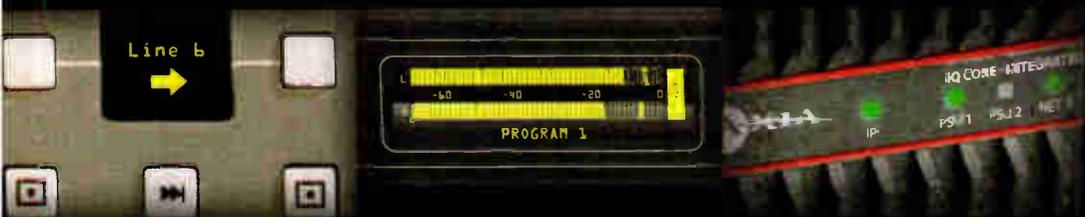


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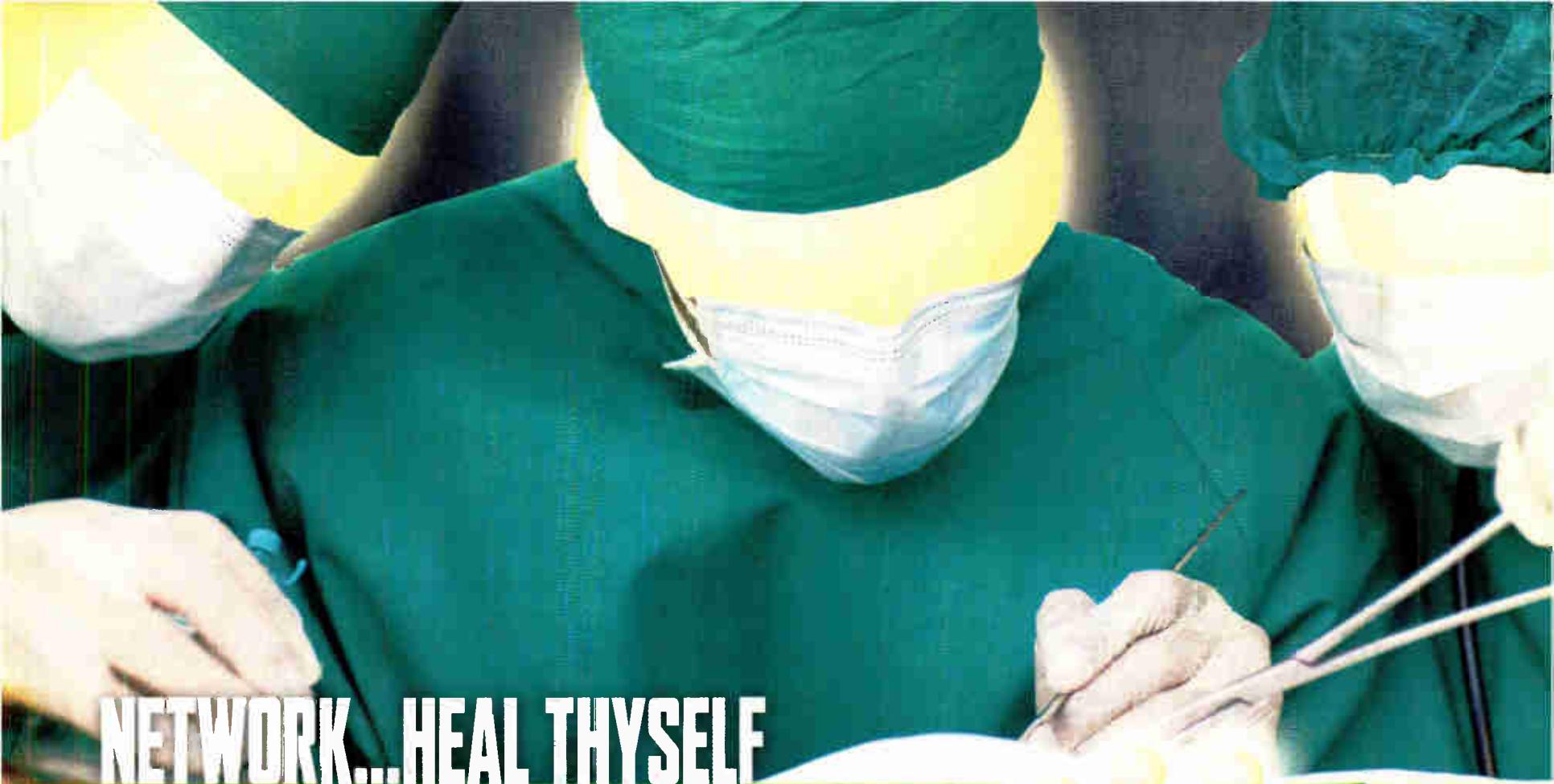
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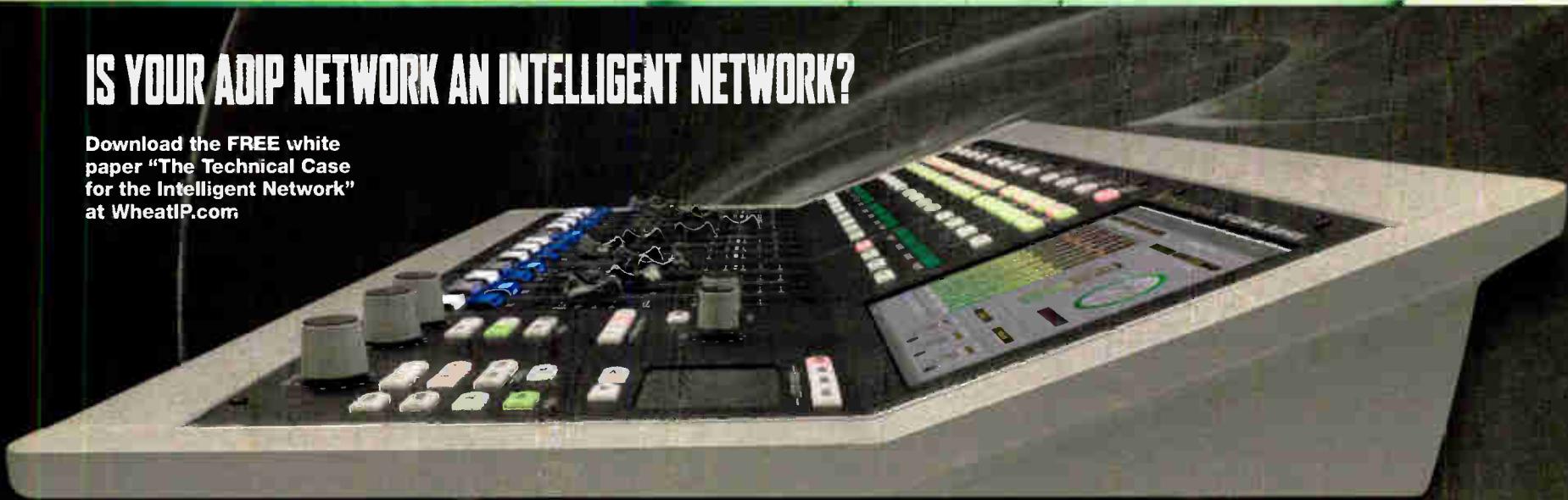


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**STUDIO SESSIONS****WARRIOR***(continued from page 14)*

might have questions the FAQs don't answer. I am using version 1.3 Beta, the version recommended for Windows 7. More information and a download can be found at the SourceForge site for Audacity, <http://audacity.sourceforge.net>. One can also find Audacity installation files bundled with audio equipment.

I suspect, like most fellow road warriors, that I don't use 100 percent of an audio editing program's capabilities. But the percentage I use in Audacity

helps me to produce sonically interesting reports from the field with easy introduction of natural sound and newsmaker actuality.

The effects features (compressor, normalize, equalize) allow me to produce programs from anywhere I can find a quiet place to cut voice tracks. I am not tethered to a studio to use studio-quality effects.

But don't take just my word for it. My colleague Pete Combs uses Audacity for his award-winning work at News/Talk WSB in Atlanta and for his work with CBS. Some of Pete's favorite features of Audacity are the auto-duck and mul-

titrack capabilities.

During a 2011 winter storm that all but paralyzed the Atlanta metro area, Pete rode along with road crews and recorded lots of natural sound and interviews. With Audacity, he was able to produce reports with narration, newsmakers and natural sound and still make a deadline, without a lot of time-consuming procedures.

"I put up my natural sound bed [and] recorded the voice tracks. The auto-duck feature saved me a lot of time adjusting levels on the individual tracks," he said.

Another time-saving feature of



Audacity that Combs likes is the auto-normalize function, which brings levels up to a set point once files are imported into the project. "When using the auto-normalize function, a user can check a box to remove DC bias offset. Again, it saves a lot of time when trying to produce a quality radio report on deadline," he told me.

Pete says, and I agree, that the Audacity learning curve is easy for users of KLZ Innovations 4.5 and Audition, but he cautions that you should invest some time to get the most out of this open-source audio editing program.

"Take at least three hours to learn (the basics) of the program, read the release notes and stay involved in the forums. And make sure you import all the filters and files necessary to make the program work the way you want it to."

Radio newsmen are a small but hardy breed. Many of its practitioners don't or won't have the budget to buy or have the latest software or hardware, but are expected to provide professional results for their listeners nonetheless. If the thinking about what a reporter must do in the field is done before the reporter goes to the field, then those results can be delivered at or even under the smallest of budget — and done easily — with open source audio editing programs like Audacity, and smaller footprint, cheaper, netbook computers, like the Asus Eee. Our next column will survey recently introduced tools for those of us who do radio news in the field.

*Paul Kaminski is the news director for the Motor Sports Radio Network and a contributor and reporter for CBS News. He's been a Radio World contributor since 1997. His e-mail is [motorsportsradio@msrpk.com](mailto:motorsportsradio@msrpk.com). For past Radio Road Warrior articles look under Columns at [radioworld.com](http://radioworld.com).*

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# From LPFM to Commercial FM: It's Complicated

Chuck Conrad Carves Out an Unusual, If Not Unique, Business Path

BY KEN DEUTSCH

Chuck Conrad's quest to start a low-power FM and then convert it to full commercial FM status took more than six years, a period filled with challenges and rewards.

Prior to his entry into the radio business, he had been a peripatetic purveyor of touring sound equipment including wireless microphones. He noticed a strange phenomenon.

"It was a new digital television audio channel on one of the frequencies we commonly used for our wireless mics," he said. "So I started paying attention to what the FCC was doing and eventually learned that there was a filing window for low-power FM coming up. I owned property in east Texas and knew there was a lack of decent radio out here. I checked the qualifications for LPFM owners and formed a non-profit organization."

Conrad knew it was a community of only about 6,000 souls arranged around the largest private lake in Texas, and that would mean his future was tied to the fortunes of small-market radio. Fortunately, making major-market money was not his prime directive.

"I wanted to serve that area," he said. "If there was a weather emergency I knew I could break in live and talk about it on the air. When there was a serious storm out here, no one on the dial had anything about it. It was all satellite and



voice tracks, and I wanted to do something different."

The LPFM construction permit was issued in 2003. KZQX(LP) hit the air the following year. Conrad had read that "Z," "Q" and "X" were the most requested call letters, but nobody seemed to be using all three.

"I later discovered that those letters are incredibly hard to type and even harder for most people to remember in the right order," he said.

Conrad developed a format consisting of music appealing to what used to be known as "old people." Today's demographers use the more euphonious

appellation "baby boomers." He was surprised to discover via phone calls and email from listeners that many young people in the area also enjoyed the sounds of Sinatra and Fitzgerald. The first years on the air were a financial struggle, but the community support grew each month.

"People would underwrite us or just donate money," he said. "Some people just showed up at our door with records. Even local stations gave us stuff. Contrary to popular belief, most broadcasters are nice people. They thought we were cute, and certainly were no threat to them."

But it was when Conrad persuaded

some of his friends to apply for and eventually receive permission to put up three translators in 2004 that the little station's audience increased dramatically.

"Longview, Texas, has about 80,000 people and Kilgore has another 12,000, and we did a pretty good job of covering those," he said. "One day someone from Arbitron called to say we were the first LPFM to show up in the ratings book."

## THE BIG SWITCH

Going commercial was the next hurdle, and luckily a frequency became available. KXAL(FM) was licensed to nearby Tatum, Texas and broadcast at 100.3 MHz.

"It had tried every format including the 'dead air' format," said Conrad. "But the owners wanted to sell it to me because they knew I would not compete with them. The deal was consummated in 2009 and we are still friends with those folks."

But according to the rules, Conrad had to divest himself of the LPFM, so he donated it to a local church. His new commercial FM was christened KZQX(FM) or "QX-FM" for short. It airs the same oldies/standards format as before, but now is pushing out 2,450 watts from atop a 500-foot tower, with a translator in Tyler, Texas. The LPFM he donated to the church took the call letters of the former commercial FM; it is now known as KXAL(LP).

Even though KZQX is now a commercial FM, it still serves a relatively small community and operates on an annual budget that would barely cover the cost of a catered lunch for the owners of some media biggies.

Conrad acknowledged that "nobody is getting rich doing this, but we aren't having trouble meeting our obligations either. In fact, our cash flow has allowed us make substantial improvements in the station's infrastructure."

His goal is to offer affordable advertising to small local merchants. "Thinking small" is what allows his station to prosper.

"I have two employees, so it's still  
*(continued on page 22)*

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## CONRAD

(continued from page 20)

small," said Conrad. "You'll hear all kinds of stuff on the station for community organizations, and our listeners actually like that. It's one of the things we have to sell. We really are local."

The station has now added a trailer, the Q Mobile, for public appearances.

"Most remotes done by other stations around here are just a guy with a card table and a cellphone giving away hot-dogs at a car dealer," said Conrad. "Our vehicle looks like a radio studio of days gone by, complete with turntables and cart machines." (There is also a computer hidden under the console.)

Paul Anderson is senior vice-president of tourism at the Longview Chamber of Commerce. "We see Chuck at all our big events and festivals," he said. "He comes to our business showcase and our boat show and AlleyFest every summer. I consider him a huge asset to our community."

### TO LP OR NOT TO LP

He's not completely sure, but Conrad believes he is the only operator to have made the conversion from LPFM to commercial FM. While he can't say this with certainty, he spends a lot of time on a half-dozen LPFM discussion groups online.

"I have never heard of it happening," he said. "I do know a couple of instances where the principals involved shut down or transferred the LPFM license and moved to the land of commercial radio in another market."

When he first considered the idea of getting translators for his fledgling LPFM, he had no idea if that was even possible.

"I couldn't find anything in the FCC rules that precluded it, so I encouraged my friends to apply under the theory that 'if you don't apply, you certainly won't get it.' The worst the FCC could say was

"no." They said "yes."

Radio World asked Conrad if he thought others could make the leap from LPFM to commercial FM.

"It's possible," he said. "Most LPFMs have a hard time staying on the air due to their usually very limited budgets. Often they reason that if only they could sell commercials,



that would fix everything. It doesn't. It just changes the rules. I've found that the cost of doing business goes up by a factor of nearly 10 including music licensing and power bills."

Conrad also cited the increase in the number of hoops through which a licensee must jump in the commercial arena.

"Public file requirements don't apply to LPFM but they certainly do for commercial broadcasters," he said. "You will need a bigger staff, and they'll want to be paid. These days radio is not a way to get rich quick. Now that the feeding frenzy of consolidation and dismemberment seems to be over, the best way to make money in radio broadcasting is to actually earn it."

### NOT FOR THE FAINT OF HEART

One of the challenges he sees for LPFM is the inherently weak signal.

"During some times of the year, tropospheric ducting renders many of these stations nearly useless. One hundred watts at the equivalent of 100 feet simply isn't enough to do the job," he said.

"It would be more reasonable to make the technical requirements for LPFM the same as those for translators. In fact, allowing translators to originate local programming might go a long way toward the commission's goal of having more local programming options available."

But technical issues are only part of what the low-power broadcaster faces, according to Chuck Conrad.

"Staffing can be a real problem," he said. "Many LPFMs are operated by activist groups, and some are quite successful at being true community stations. Usually volunteers get involved with a lot of enthusiasm, but they can burn out quickly as life's realities seem to get in the way. It takes a lot of managerial skills to pull that off for any length of time."

But the biggest headache for LPFMs comes down to money.

"It's about not going broke," he said. "Most stations either lose money or barely break even. Selling underwriting on a station that is difficult to receive is a very real problem. It's probably why so many LPFMs are owned by churches and are little more than satellite-fed translators for a network."

Conrad is a fan of LPFM broad-



'The Q Mobile' is a retro studio on wheels, made mostly of repurposed equipment and resembling a 1960s or early '70s radio studio (at left). Staffers Alexa Duke and Jim Allen are shown above just before the doors open at the Rusk County Farm, Ranch and Home Expo in April.



Sparky barked at the end of a 'Pet of the Week' PSA and ended up with a radio following for a couple of years. 'Maybe I should put him back on the air,' Conrad said. 'He works cheap.'

casting but says the concept arrived "as a very crippled newborn" thanks to unrealistic power limitations, third-adjacent-channel restrictions, congressionally mandated rule changes and vague underwriting regulations. More low-power FMs are on the horizon now thanks to recent FCC actions, including the easing of interference restrictions, "but finding frequencies, especially in urban areas, is still going to be difficult if not impossible," he said.

"The big questions remain. Will the same filing requirements apply to this round? When will the filing window open? I'm guessing sometime in 2012, but I think the FCC should deal with the remnants from the Great Translator Invasion first," Conrad said. "People who applied almost 10 years ago deserve an answer from the commission, even if it is a 'no.'"

In any event, anyone hoping for an LPFM should be laying their ground work now. "It takes a lot of patience and perseverance."

Ken Deutsch says his first paying DJ gig was at an FM country station that styled itself as the "Home of the Jones Boys." His air name was Ken Jones. With counseling he has made a full recovery.

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World Radio History

# 10 Years Later, We Must Remember

Nationally or Locally, Radio Can Help Remind Us of Our Nation's Strengths

Sportscaster Warner Wolf was on the air via telephone, describing how he was having a morning cup of coffee looking out of the window of his high-rise condo, when he saw an airplane crash into the World Trade Center.

I'm sure you remember exactly where you were when the first plane hit the tower. I was on my way to a radio station, listening to that station's syndicated show "Imus in the Morning."

Like those of us listening, Warner didn't really know what to make of it. It appeared to be an intentional act, but he couldn't quite believe it because it defied logic.

Ten years later, with all the facts we have about the events of 9/11, the tragedy has become part of us. Our sense of loss continues to weigh heavily, and when discussion occurs, we are united in our mourning. We are concerned about the safety of our troops around the world and for the security of our society.

## A NATIONAL GESTURE

Now is the time to prepare for the commemoration of the 10th anniversary of Sept. 11, 2001. It would be remarkable if, as a united body, radio stations from coast to coast could share a moment of reflection.

Imagine tens of thousands of radio stations sharing the same audio introduction, then silence, then an ecumeni-

cal prayer for our country. Last, we could ask people to turn on their car headlights for the remainder of the day.

If the heads of the major broadcast radio groups, plus those of satellite and online radio, got together and could agree on such a plan, no doubt others would join in. What a powerful experience we could create for our citizens.

I am not suggesting this for industry self-aggrandizement. I'm putting this concept out there because it's the right thing to do to remind folks that, regardless of politics, we are all part of one steadfast, moral society — proud Americans who care about one another.

## STATION PLAN

Regardless of whether anyone takes this national concept seriously, you owe it to your listeners to make your local commemoration plans now.

You'll need time to come up with an approach that makes sense for your city, your format and your demo. You may want to gather an advisory panel of listeners, city officials and local relatives of those who lost loved ones. But the time is now.

With a topic as sensitive as this,



you'll want plenty of input about how best to serve the public. Do you use short sound bites throughout the day with people remembering where they were and how they felt? Do you augment this with maybe a 30-minute special? Do you interview experts on the subject during your morning show that day?

There's so much to look into that a program director might want to consider enlisting a project manager to assist in the research, tactical approach and execution.

It's possible that your station or cluster may want to hold a special event at a public place.

Does your city have a 9/11 memorial? Should one be built? If you're able to form strong relationships with city officials and civic leaders, could you help make that happen, or at least start raising funds for it to be built next year? Could you be helping to facilitate seminars or lectures in schools from those

## PROMO POWER



Mark Lapidus

who were eyewitnesses?

For example, I have a friend who was in the hotel at ground zero when the first plane hit. His entire group was saved thanks to some quick thinking by his group leader. I know someone else who happened to be out of his office at the Pentagon for a meeting when the plane struck. He went to funerals for nearly six months and, as you might assume, has strong views on the subject. I was present when each addressed an informal but sizable group, and their presentations were very moving.

If you've made it this far into my plea for participation, perhaps you'll hear me out when I say that some sort of commemoration belongs on every station regardless of format. The natural reaction of many music programmers will be that it's not right for music radio stations to be involved with something so heavy. The reasoning will be that commemoration of Sept. 11 will cause a drop in ratings. After all, one may say, this is truly for the all-news, talk stations and maybe the ever-patriotic sound of country radio.

I say they're wrong. The commemoration of the 10th anniversary of Sept. 11, 2001, is for all American radio stations. It's for good reason that we call our country the United States of America.

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

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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](mailto:ronwtamm@yahoo.com).

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# Museum Will Honor the 'Cincinnati Liars'

The VOA Bethany Station Is a National Treasure in Need of Support

## COMMENTARY

BY KEN RIESER

*The author is president of the board of directors for the National Voice of America Museum of Broadcasting.*

The Voice of America Bethany Station was built in 1944 on a wartime basis under the direction of broadcasting pioneer Powel Crosley. After the attack on Pearl Harbor, President Franklin D. Roosevelt was determined to broadcast radio messages overseas. Powel Crosley committed his innovative team of engineers in Cincinnati to building transmitters and antennae system capable of this.

A 640-acre site was selected north of Cincinnati in the rural community of West Chester and not far from neighboring Crosley's powerful WLW transmitter.

Here, engineers set about building something that had never been built before. Intricate antennae systems would soon be scattered throughout the property and an impressive art-deco structure resembling a WWII airfield control tower was built to accommodate the six new 200-kilowatt transmitters (10 kW was the standard power at the time).

The transmitters were designed and built by Crosley engineers with every component custom-made; and they

would remain in service to the U.S. government for the next 50 years. The technology was top secret and perplexed Hitler and others as America's Voice continued to permeate Europe and South America. Frustrated by the inability to block this powerful voice, Hitler referred to the facility as "those Cincinnati Liars."

The structure itself, while built during the shortages of war, was designed

curved balcony and six transmitters on two podiums. This impressive space in the 1940s would have been a vision of technology and progress.

Powel Crosley referred to this course as "The Temple of Radio."

### UNIQUE AMERICAN MESSAGE

While the structure of the building is significant in an architectural sense, it is the story of The Voice of

of freedom and democracy to be shared with people oppressed by tyrannical leaders yearning for the truth.

For the next 50 years, these engineers used their imaginations and their skills to make sure America's message was always heard, defeating jamming efforts and overcoming technological challenges.

In times of war and in times of peace, The Voice of America Bethany Station delivered the news and culture of America, including the music of Louis Armstrong and others, to victims of war, the oppressed, the curious and service men and women serving their country around the globe.



to highlight and pay tribute to the powerful technology held within its walls.

The art-deco building is made of glazed block with a four-story tower that during time of national crisis held armed guards. The bulk of the building was referred to as the Great Concourse, an open space with a 25-foot ceiling,

America Bethany Station that speaks to our nation's history.

This building represents American ideals in so many ways. In service of their country, a group of innovators united to create technology that had only been imagined. They made it possible for the unique American message

With the advent of newer satellite-based technology, ground stations like VOA's Bethany were no longer needed, and the facility was decommissioned in 1995.

Shortly afterward, dozens of radio towers and curtain antennae were razed

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# BETHANY

(continued from page 29)

at the West Chester location, and the facility and about 500 of the surrounding acres were turned over to West Chester Township and Butler County Metro Parks for public use. The VOA Bethany Station and its surrounding 20 acres were given to West Chester Township for historic monument purposes.

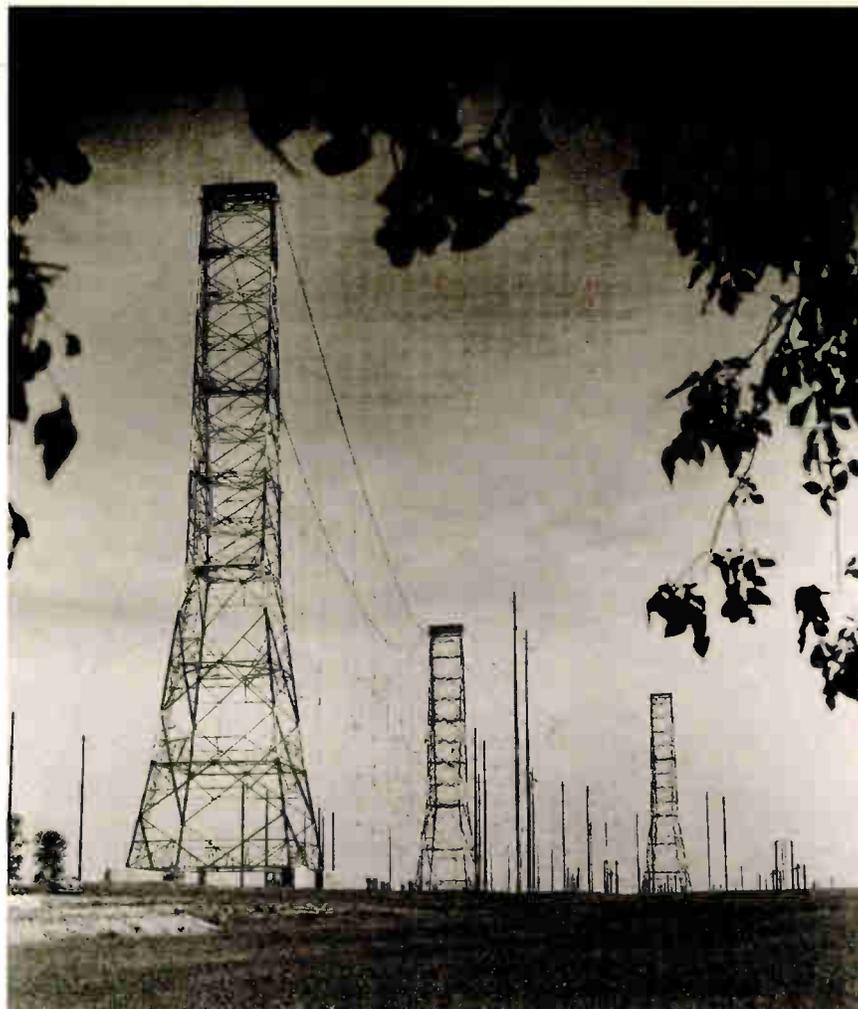
## JOINING EFFORTS

Over the next several years interested citizens worked to convert the Bethany Station into a museum. Most notable among them was the local VFW Post and the West Chester Amateur Radio Association.

As the museum took shape it was evident that the space was larger than needed for just the VOA Museum and West Chester Amateur Radio Association, which was operating an amateur radio station out of the building. At the same time two local museums were looking for new homes. They were the Gray History of Wireless Museum and Media Heritage. Both were excellent fits for the VOA Museum.

The Gray History of Wireless Museum boasts one of the largest collections of antique radio equipment in the country and was assembled by Jack Gray, a former VOA Bethany Station engineer. Media Heritage is dedicated to the preservation, restoration and maintenance of historic broadcast recordings, photographs, scripts, film, printed text, oral histories and other media related to the history of radio and television in the Greater Cincinnati area, the Midwest and the nation. Both of these museums are now housed in the Bethany Station building.

In order to facilitate three museums and an operating radio station (WC8VOA) occupying one building,



West Chester Township formed an independent board. Its mission is to develop and operate the National Voice of America Museum of Broadcasting.

To determine the best way to merge these entities into a cohesive experience the board commissioned Jack Rouse Associates to develop a Concept Master Plan. Meanwhile West Chester Township, with a grant from the state of Ohio, has spent \$1.5 million restoring the building to its original 1944 exterior façade. This restoration was completed in 2011 and they are planning additional major repairs to the building for 2012.

The National Voice of America Museum of Broadcasting Board has

accepted the Rouse Master Plan. The plan can be viewed on the museum website. The fundraising campaign to complete the detail engineering and construction has begun.

The goal is to raise \$12 million to convert the Bethany Station into a museum that will preserve the rich history of VOA, wireless radio and Cincinnati broadcast history. Please visit [www.voamuseum.org](http://www.voamuseum.org) for more information on the affiliated organizations. If you are interested in contributing, please click on [www.givevoa.org](http://www.givevoa.org); it links to the West Chester/Liberty Community Foundation, which is collecting the donations.

**The goal is to raise \$12 million to convert the Bethany Station into a museum that will preserve the rich history of VOA, wireless radio and Cincinnati broadcast history. This 2011 photo shows the restored exterior to its 1944 façade.**



Next Issue of RADIO WORLD September 1, 2011  
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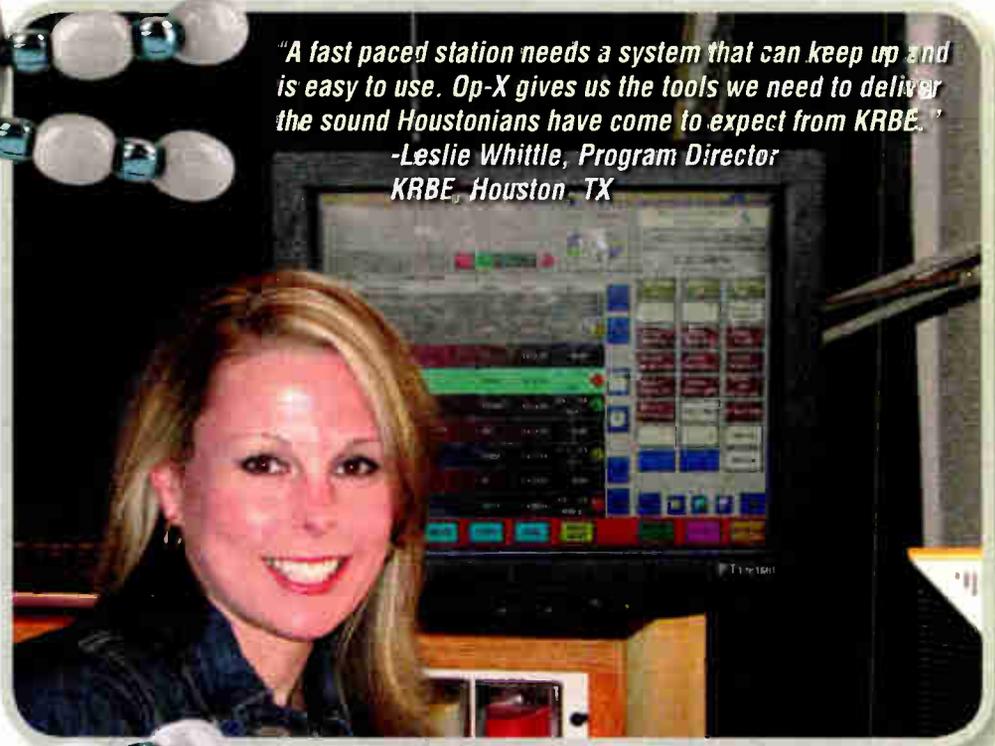
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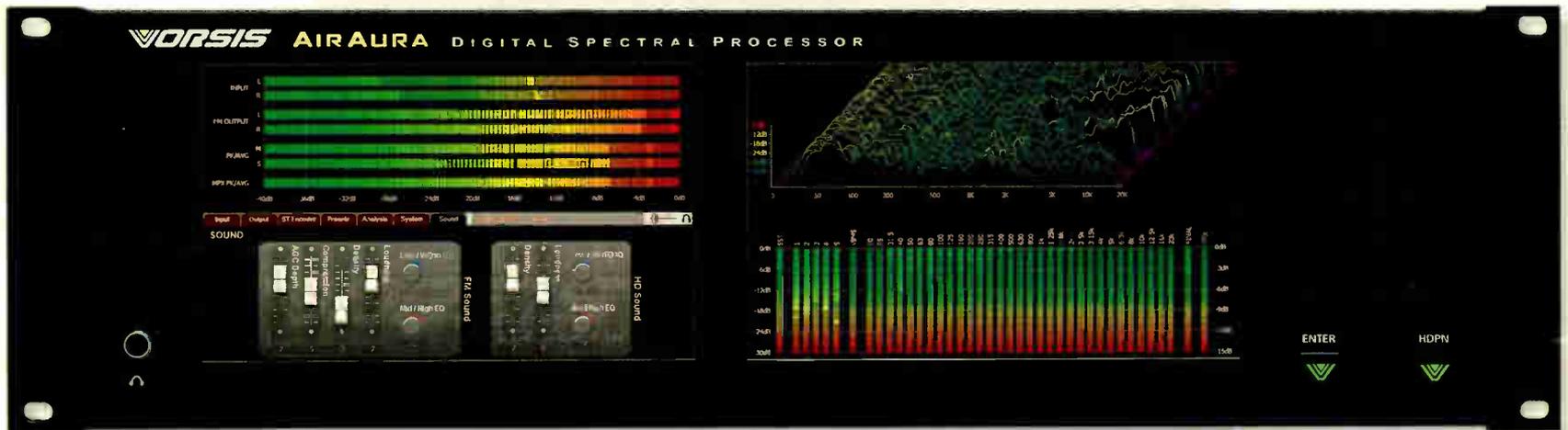


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Feed-Forward signal control instead of feedback eliminates processing errors by adjusting the signal before it enters a processing step, not correcting it afterwards. When the smart control of the AirAura AGC and clipper are combined with the real time information provided by feed-forward technology, true anticipatory processing results.

Add up the differences and you can see that AirAura is a very different broadcast audio processor, built with a unique philosophy to process less and process smarter. But don't take our word for it. We've got tons of testimonials available. Call or email us at the contact info below to arrange to hear the cleaner sound of the AirAura with your own ears.

## Comparison Between Conventional & Vorsis SST Multiband Systems

### Conventional Multiband System

Four step process



### Vorsis SST Multiband System with Feed Forward

Three step process



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YOUR ON-AIR SOUND IN THE RATINGS

Put the Vorsis CleanUp Crew to Work In YOUR Studio. You Won't Believe The Difference In Your On-Air Sound Or Listenership.

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phone 1.252.638-7000 | [vorsis.com](http://vorsis.com) | [sales@wheatstone.com](mailto:sales@wheatstone.com)



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