

#####  
 8BXNNTQJ \*\*\*\*\*AUTO\*\*SCH 3-DIGIT 856  
 80009383 1# ROMA E0711  
 TOM MILLER 204  
 ASST CHIEF ENGINEER  
 KTZR  
 2033 S AUGUSTA PL  
 TUCSON AZ 85710 7905

**Cruisin' and Playin'**  
 Buc Fitch reflects on the special place radio enjoys in our cars.  
 Page 22

**Tight Corners**  
 Important obstacles lie around the bend on digital radio's road to success.  
 Page 20



Photo by Benjamin Earwicker

# Radio World

\$2.50

The Newspaper for Radio Managers and Engineers

February 1, 2008

## INSIDE

### NEWS

▼ With FEMA in the lead, the next generation of EAS is being developed. A recent meeting coordinated by the SBE brought together major players in the process.

Page 3

▼ Webcaster and performer royalties get headlines, but existing music licensing fees for radio also have increased steadily over the past five years.

Page 10

### ENGINEERING



▼ In *Workbench*: A handheld digital thermometer can zero in on hot spots.

Page 12

▼ *Supply Side* talks with Eric Wiler about the Jones Digital Audio Server.

Page 18

### GM JOURNAL

▼ Beloved of jazz listeners, Marian McPartland is now a Hall of Famer.



Page 24

▼ What bugs Harry Cole about 'localism.'

Page 32

### OPINION

▼ Numerous shortwave facilities that are being eliminated by the BBG are irreplaceable, Jack Quinn and Nick Olguin say.

Page 37

## With Radio Blogs, Stations Practice the Art of the Possible

by Tom Vernon

As broadcasters in the Internet age sought new ways to connect with their audience, many stations added Web pages, started streaming program audio and initiated podcasts. Some in the past few years also have added station blogs.

This variant on Internet technology offers radio stations benefits but also some traps. Station managers have learned useful lessons about blogs even as these online content vehicles have become more mainstream.

#### Character attacks

Blogs (short for "Web logs") are sites where entries are made in chronological order and typically displayed in reverse chronological order. Many sites allow readers of the blog to leave their comments.

While most blogs are text-based, photo, video and audio posts are becoming more common.

Stations may design blogs in several ways. There can be a separate blog for each announcer. Blogs can be set up for a program, and moderated by a host, or they may be organized by topic: music, movies, politics, etc.

WGN(AM) in Chicago started station blogs in the summer of 2005. While an exact figure for the number of visitors isn't available, Promotions Coordinator Jenny Eck notes there has been a steady increase in use as blogs become more mainstream.

"It has definitely been a positive experience for the station, and is a way for hosts to extend the reach of their radio shows."

She notes that typical submissions from hosts may be about questions they should have asked guests, or additional material

See BLOGS, page 6 ▶



## Clear Channel's KKGN Adopts a Makeover — and Lines up With Environmental Trends

The first in a series of articles about how radio is "going green" to save both energy and money.

Page 16

## WHEATSTONE adds features and saves money



This G-7 is NEW and LOADED with FEATURES: event recall, automation interface, bright source displays, and EQ/Dynamics and panning, all recallable on EVERY input channel for production or mic processing—the list goes on.

With the Wheatnet™ network design you'll get a simple, reliable, low latency system with high-speed digital audio, meters and logic commands—all in Real Time. PLUS we'll assemble, test and configure the entire system right in our plant, assuring you a smooth on-time installation.

WHEATSTONE—WE MAKE THE GOOD STUFF.

www.wheatstone.com  
 copyright © 2006 by Wheatstone Corporation

Do you love the history of radio technology? Enjoy Buc Fitch's Milestones column, archived at [radioworld.com](http://radioworld.com)

# NEWSWATCH

## Radio Ad Revenue Diet Ahead?

**NEW YORK** Radio ad revenue will be flat in 2008, though overall U.S. media ad revenue will pick up. That's according to Wachovia Capital Markets.

Following a year of tepid 1.4 percent ad growth, the company foresees U.S. ad revenue improving by 3.8 percent this year, "with budgets continuing to shift to below-the-line advertising as well as more targeted media such as cable networks, the Internet and outdoor. From a sector perspective, we favor ad agencies,

Hispanic media and cable networks."

Radio, it said, continues to face secular and cyclical challenges, and "therefore we anticipate another slow year with political and non-spot revenue keeping the industry flat rather than down." Wachovia thinks radio will see a 1 percent drop in local ad revenue, a 1 percent increase in national and 10 percent growth in nonspot/online.

## News Roundup

**NEW ROYALTY FORM:** SoundExchange introduced a new royalty form. Law firm Fletcher, Heald & Hildreth

reported that in future, commercial Webcasters must calculate monthly royalty payments for digital performance of sound recordings on a per-performance basis. Most stations had used the aggregate tuning hour method to calculate payments by counting the number of listeners per hour. The per-performance option is harder, states FHH, because it requires the Webcaster to know exactly how many listeners heard each song that was streamed.

**D-E CONTRACT:** Directed Electronics and Sirius Satellite Radio extended their contract to Aug. 31. Directed has made Sirius aftermarket satellite radios since fall 2004. Directed President/CEO James

Minarik stated that changes to the agreement regarding returns are meant to enhance cost recovery and improve the predictability of Directed's earnings in the satellite radio category. "While the pending merger between Sirius and XM has added a degree of uncertainty to the satellite radio market during 2007, as well as our agreement renewal discussions, we believe this amended agreement will serve as a template for future extensions we plan to discuss after regulatory review of their merger is fully resolved in the coming months," stated Minarik.

**WORLDSPACE:** An injection of available cash will allow WorldSpace to continue its European business implementation while pursuing more financing, the company says. The Maryland-based firm said it has secured a financing facility for up to \$40 million of subordinated financing from Yenura Pte. Ltd., a company controlled by WorldSpace Chairman/CEO Noah Samara.

**CHANNEL 6:** The Association for Maximum Service Television says proposals to end radio protection of TV Channel 6 and possibly Channel 5 spectrum and turn those allotments over to the FM band after the DTV transition are "without merit and procedurally flawed." RW's "The Leslie Report" recently reported on a proposal by Mullaney Engineering, which cites the change as a way to ease overcrowding on the FM band. Another petition, filed by EME Communications, echoes the proposal. It's too late in the DTV allotment process to take channels out of the assignment pool for full-power stations, nor should anyone expect those viewers to accept interference from radio stations, according to MSTV.

# Wheatstone

## The Evolution Series



A SINGLE E-SERIES surface and E-SAT audio frame can behave just like a stand-alone console, with your controls in the console surface and your ins, outs and mixing in a studio frame.

### E-6 Networked Digital Audio Control Surface

*It's the WHEATSTONE You Can Afford!*

BUT CREATING A SOPHISTICATED AUDIO NETWORK of OTHER studios, frames and surfaces has never been easier. With our exclusive WHEATNET® Network Switch, a simple CAT-5 cable can replace a mountain of wire: 128 channels of audio, machine logic and communication all in one link.

AUTOMATION? No problem! Our Windows.wdm driver installs easily on any PC, and the Wheatnet ET card gives you 32 channels of streaming AoIP where it's best suited—talking to your automation and acting as a secure gateway to your network. It also provides serial control between the Wheatnet system and your automation, and of course eliminates the cost and performance limitations of sound cards.

Naturally WHEATSTONE provides you with all the controls, hardware and software switches needed, right up to the Glass E computer based virtual console. And because all our controllers are ethernet based, you can operate and administrate from anywhere on or off your site.

The WHEATNET SYSTEM is the most reliable, easy-to-install and comprehensive network audio system you can have.

copyright © 2008 by Wheatstone Corporation | tel 252-638-7000 | www.wheatstone.com/series.htm | sales@wheatstone.com

## Index

### NEWS

<b>With Radio Blogs, Stations</b>	
Practice the Art of the Possible	1
NewsWatch	2
Plans for New EAS Move Forward	3
'Much Ado About Almost Nothing'	4
Public Radio 'In the Book'	5
The Computer Ate My Life	8
Licensing Fees See Steady Rise	10

### FEATURES

Workbench: Zero In on RF Hot Spots	12
Who's Buying What	14
KKGN 'Green 960' Seeks Greener Pastures	16
JDAS Is a 'Specialized Industrial Computer'	18
Turning Some Tight Corners for IBOC	20
Radio Has a Special Place in the Car	22

### GM JOURNAL

Marian McPartland and All That Jazz	24
Sending Out E-Mail Like It's 1999	26
RAB Seeks Bold Signals for 2008	28
What Bugs Me About 'Localism'	32

### OPINION

Reader's Forum	36-38
Don't Close Shortwaves, Improve Them	37
FCC Should Not Require 24/7 Staffing	38

# Plans for New EAS Move Forward

*But Next Generation Is a Year or More Away and Equipment Requirements Remain Uncertain*

by Randy J. Stine

**WASHINGTON** Saying EAS needs improvements but not replacing, the Society of Broadcast Engineers along with a number of governmental entities continue working toward the launch of a next-generation emergency alerting system.

A meeting coordinated by the SBE in the fall brought together the major players in the process, including officials from the Federal Emergency Management Agency, NAB, the FCC, the National Oceanographic and Atmospheric Administration and the National Alliance of State Broadcast Associations.

Engineering sources familiar with the meeting say FEMA is taking the lead in mapping the future emergency alerting system, which will include the Common Alert Protocol and incorporate non-broadcast wireless devices.

Broadcasters most likely will be forced to replace existing EAS equipment with CAP-capable decoders, according to the SBE. The FCC's first Report and Order on EAS was released in 2005. Subsequently, second and third reports have been issued. The first stated that all participants will be required to have the

already producing EAS equipment that is CAP-capable and others are close to doing so," Freinwald said.

The EAS is a national public warning system that requires broadcasters to make their communications facilities available

**There is a strong likelihood that existing legacy EAS equipment will need to be replaced.**

— Clay Freinwald,  
National SBE EAS Committee Chairman

to the president during a national emergency. State and local emergency authorities can also use the system.

Freinwald said yet to be determined is the "standardization of plans, equipment and procedures" of a next-generation EAS, including exactly what role broadcasters will play.

EAS is undergoing a tremendous transition from an audio voice-based

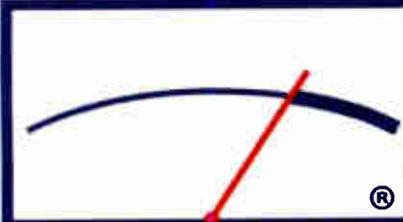
NAB is involved in EAS redevelopment to make sure broadcasters have a voice in the new system, said Kelly Williams, NAB senior director of engineering.

"FEMA is at the very top of this and has asked for our input. There still needs to be methodology put in place for us to do so. They have not established ruling proceedings or advisory committees yet," Williams said.

"At least we know which federal agency is driving the bus."

Williams said the NAB would look for ways to minimize the cost and burden, particularly for small-market radio stations, of any new EAS equipment requirement.

FEMA was expected to present a first assessment of architecture of a new EAS to White House staff at the beginning of



**BSW**

Lowest Prices and Largest Inventory on EVERYTHING For Broadcast

**BSWUSA.COM 800-426-8434**

capability to receive CAP-compliant EAS messages.

**Replacement gear**

"There is a strong likelihood that existing legacy EAS equipment will need to be replaced," said Clay Freinwald.

approach to more of a text-based system, he said.

"Quite likely what we'll find is the text message will be created by whomever and that message will be read by a text speech device built into the new EAS decoders at the broadcast stations. It

**FEMA is at the very top of this and has asked for our input.**

— Kelly Williams,  
NAB Senior Director of Engineering

national SBE EAS Committee chairman. "The gear and technology is 10 years old in some cases. Most of the current EAS equipment is not compatible with CAP. There will be replacement EAS gear that will be feature-rich and capable of CAP."

Any launch of the next generation of EAS is at least a year away, Freinwald added.

"There are some manufacturers

would be similar to 'Craig' and 'Donna,' the automated voices of the National Weather Service," Freinwald said.

**Broadcasters' voice**

Freinwald compared a new EAS to "a public warning tool box" with options for local emergency managers to "reach into and determine the best means to get the attention of the public, whether it's reverse 911, sirens or broadcast alerts."

2008, Freinwald said.

Rob Kenny, spokesman for the FCC's public safety and homeland security bureau, said, "The whole transition from analog to digital EAS is going to bring benefit to the American public, primarily through better integration of digital messaging."

The FCC's EAS Report and Order requires all EAS participants to be able to capture CAP messages within 180 days of FEMA adopting CAP.

"Broadcasters have been receptive to these changes. We haven't heard or seen any major issues with them that would lead to a delay in rollout when it is announced," Kenny said.

FEMA and NWS officials declined comment for this story.

The major stakeholders in EAS were expected to meet for further discussions in late January. More details of the next generation of EAS may become available during the National EAS Summit, a joint effort coordinated by NAB and NASBA, scheduled for Feb. 24-25 in Washington.

For a summary of the EAS Second Report and Order and Further Notice of Proposed Rulemaking, which revises the FCC Part 11 EAS Rules, go to: [www.sbe.org/documents/SBE-EASRO-FINAL.doc/](http://www.sbe.org/documents/SBE-EASRO-FINAL.doc/)

30,593 products in stock at press time!

**Wheatstone Has Landed At BSW**

Wheatstone



**Wheatstone Evolution 6**

- Configurable as standalone consoles or as an entirely scalable audio/control network
- Legendary Wheatstone ease-of-use and quality
- Entire network interfaces with standard CAT-5 cable

**CALL BSW FOR CONFIGURATION & PRICE**



**Harris Intraplex STL: Transmit Program Audio, Data & Phone over T1 or IP**

Harris Intraplex is a digital STL specifically designed for IBOC conversion for HD Radio. It's the ideal choice for a single studio-to-transmitter link or multi-location wide area audio, telephone and data network. Choose 16-bit uncompressed or 24-bit compressed apt-X audio transfer. Call BSW today.

**Call BSW For Lowest Price • 800-426-8434**



**Vorsis FM5 Full-Featured FM Audio Processor**

- Delivers loudest and clearest FM signal
- 5-band Vorsis Multiband Dynamics Controller
- Precision 10-band final limiter with clipper
- Reference-grade multiplex encoder

FMS List \$7,995.00

**Call BSW For Lowest Price 800-426-8434**



**Henry SixMix USB Broadcast Mixer**

- 10 inputs, 6 channels, with AD/DA codec
- USB interface for quick, efficient connectivity
- Stereo Program mixing bus
- Mix-Minus output
- Cue bus with internal Cue speaker
- Talkback, plus Guest headphone facilities
- Accurate audio level metering

SIXMIX List \$1,195.00

**Call BSW For Lowest Price: 800-426-8434**



**BSW**

**Broadcast Supply Worldwide**

**Same Day Shipping**  
BSW stocks a huge warehouse in Ohio for faster delivery to you. Stock items ship the same day. Just order by 7:00 PM Eastern Time.  
**Experienced Sales Staff**  
BSW's sales professionals have decades of real-world broadcast and recording experience to offer expert help with your purchase.

# 'Much Ado About Almost Nothing'

Winter is a good time for reading. (But then again, so is summer.)

Here is a handful of new or updated titles that caught my eye and which I think you might enjoy or find profitable. I have more books to tell you about in a future column, too, I can't keep up!

Is there a book you'd recommend to Radio World readers? Let me know, write me at [radioworld@imaspub.com](mailto:radioworld@imaspub.com). (Also note, we're moving to our new headquarters and will have fresh e-mail addresses around the time you read this, so you'll be seeing new contact information for RW. But this address will continue to come to me for some time.)

"*Much Ado About Almost Nothing: Man's Encounter With the Electron*" — Hans Camenzind is a consultant in analog IC design who designed the first integrated Class D amplifier, introduced the phase-locked loop concept to ICs and is credited with inventing the semi-custom IC.

He wrote this book for the general public; it's a history of electronic invention through profiles of people like Michael Faraday, Nikola Tesla, Guglielmo Marconi, Lee de Forest and William Shockley. Professing an interest in the "oddballs and eccentrics who tamed electricity," he walks us through scientific history from the Greeks of 600 B.C. to the era of 1 GB RAM with 8 billion transistors.

The book suffers from sloppy editing, and my copy arrived with a sheet of subsequent corrections spotted by readers. On page 165, for instance, Camenzind states the date of the attack on Pearl Harbor as Dec. 7, 1939; there are other errors in dates and spelling that are unseemly in a book about science.

The text is not for a serious student;

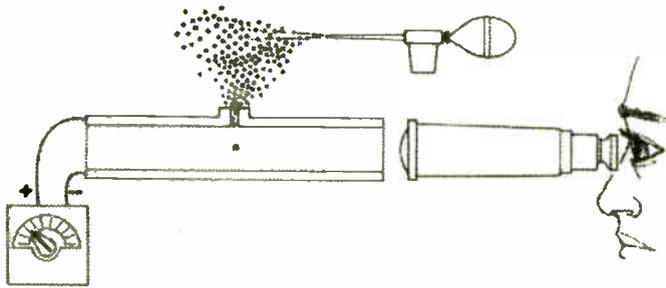
other writers have covered these topics in more depth and with more substance. But I appreciate Camenzind's enthusiasm for his topic, and it's a fun essay into the realms of science, including a refreshing focus on more recent innovators like Ted Hoff and Bob Noyce.

Published by BookLocker.com, this 240-page soft-cover retails for \$14.95.

★ ★ ★

"*Sound System Engineering*," Third Edition — A substantive textbook for people involved in sound system design, substantially updated.

"The first two editions were oriented toward those planning systems from components available in the existing market-

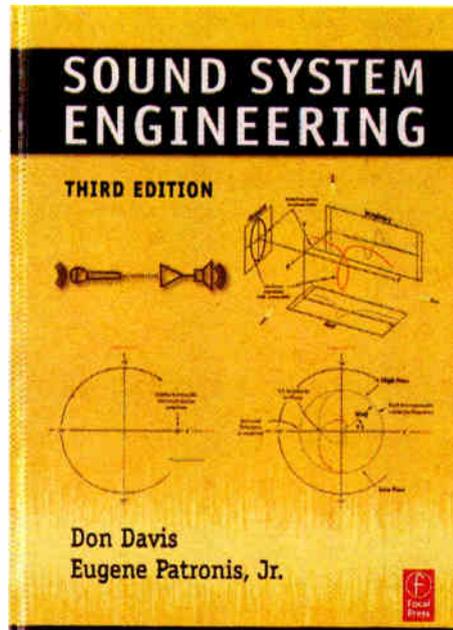


Robert Millikan's oil-drop experiment, from which he determined the properties of a single electron. From 'Much Ado About Almost Nothing.'

place, i.e. they were treated as boxes on a diagram," the authors write in their preface. Those editions mostly ignored component design and analysis.

This version, published in 2006, adds the expertise of Eugene Patronis Jr. to that of author Don Davis in an effort to bridge the worlds of audio — the realm of wave equations, Fourier, Hilbert and Laplace transforms with that of Ohm's Law, Sabine and Hopkins Stryker, as the authors put it, combining academia with real-world experience.

Their subjects include mathematics for audio, using the Decibel, interfacing electrical and acoustic systems, loudspeaker directivity and coverage, the acoustic



## From the Editor



Paul J. McLane

Valerie Geller's book "*Creating Powerful Radio: Getting, Keeping & Growing Audiences*" is updated and well worth a read by programmers, managers and talent of non-music stations.

She's a consultant specializing in news, talk info and personality radio; her aim is to help readers identify talent, build better

Here is a handful of new or updated titles that caught my eye and which I think you might enjoy.

environment, measurements, small-room acoustics, microphones, system EQ and much more.

Some of these topics are more relevant to radio applications than others; you may never have to worry about large-hall acoustics, for instance; but all of it is of interest, and there's plenty of deep tech for the radio/audio engineer who wants to understand how sound systems work and who isn't afraid of the math.

Published by Focal Press. The 490-page hardback retails for \$83.95; I saw it used for around \$68 online.

★ ★ ★

programming and increase ratings. She takes a personal, chatty tone without pretensions; if you read our *Promo Power* columnist Mark Lapidus, you'll enjoy Geller, who takes a similar straight-forward, commonsense approach to the area of radio programming topics.

Geller also quotes numerous radio consultants and experts who offer productive ideas, so you're getting a lot of good advice here — practical, helpful ideas to keep a radio news or personality programming team on track.

Published by Focal Press, 340 pages, soft-cover. Retail \$39.95.



Valerie Geller

## BURLI. COMPLETE NEWS PRODUCTION SOFTWARE FOR RADIO.

BURLI. A computer newsroom system with tools to let you gather, edit, share and deliver the news:

- Full support for XML and RSS newswire data
- Audio recording, editing and play-to-air
- Group-wide sharing of news content between newsrooms, bureaus, laptops
- Export content to websites, podcasts in industry-standard formats.

TO FIND OUT HOW BURLI CAN WORK FOR YOU...

[www.burli.com](http://www.burli.com) | [info@burli.com](mailto:info@burli.com) | +1.604.684.3140



# Public Radio 'In the Book'

Researchers Find Similarities When Comparing PPM to Diary

by Leslie Stimson

While public radio is showing strength during morning drive, its gains are not coming at the expense of commercial radio.

That's according to an analysis of data by Paragon Media Strategies from Arbitron's Portable People Meter for public stations in New York, Houston and Philadelphia.

In the diary, public radio statistics show up in some, but not all, Arbitron reports. In PPM markets, public radio shows up in "the book." Public radio researcher John Sutton and Mike Henry of Paragon Media said during a presentation at Arbitron in December that their research shows public radio remains a niche medium.

Indeed, they concluded that PPM data have, so far, not changed public radio station 12+ and 25-54 rankings in their markets, and that listening recorded with meters throughout the day is similar to that recorded in diaries in the three markets.

PPM introduces a new dynamic into ratings, said Sutton, capturing listeners' real-time response.

"It matters because in the last few years we've heard about lots of public stations showing up in the top five markets. Many public stations are number one or two in the market in morning drive." Public radio consistently ranks in the top five in the 25-54 demo in several markets including Boston, Washington and Portland, Ore., he said.

The study concluded that PPM has not changed public radio stations' rank in their markets, either in 12+ or 25-54. For example, NPR's "Morning Edition" ranks 9th (12+) in Philadelphia, 10th in New York and 11th in Houston, according to the analysis.

While the researchers say public radio shows strength in morning drive, commercial all-news stations in the select-

Mon-Sun 6a-12m. Persons 12+	Cume	AQH
WNYC A/F New York NPR News/Talk	- 19%	- 45%
KUHF-F Houston NPR News/Classical	- 4%	- 50%
WHYY F Philadelphia NPR News/Talk	9%	- 15%
WXPB-F Philadelphia AAA	12%	- 49%
WRTI F Philadelphia Classical/Jazz	22%	- 48%

ed markets are strong, and the data show that commercial radio news stations still share more listeners with other commercial stations than with non-commercial outlets.

Comparing noncom diaries to PPM for the three markets, AQH was cut in half in all three markets for Mon-Sun. 6 a.m.-midnight, persons 12+. Non-commercial news and talk stations saw cume declines, while non-commercial music stations such as Philadelphia's WRTI(FM) (+22 percent) and WXPB(FM) (+12 percent) have seen increased cume, according to the analysis, which is available online at [www.paragonmediastrategies.com](http://www.paragonmediastrategies.com).

In general, PPM results compared to diaries for commercial stations show higher cumes, lower TSL and similar AQH, according to analysts.

Sutton and Henry also studied the impact of pledge drives on audience behavior, learning that not all fundraising drives listeners away.

Recovery time, or how quickly listeners tune back in, was shorter than expected. They demoed a product from Media Monitors that allows the users to synch up PPM data with station audio — to make it more clear how listeners react when certain program elements come on-air.

"Tune-out can't always be blamed on the programming. Lifestyle plays a major role," said Sutton. "The lessons probably apply to all of radio."

Observers cautioned that these are still early days for PPM data and that diary results vs. PPM data can only be compared in three markets so far.

### Public Radio in the Book

- ❖ No major impact on the 12+ and 25-54 rankings, so far
- ❖ College graduates are a critical demo for public radio
- ❖ Public radio shows strength in morning drive

Indeed, Mike McVay, president of McVay Media, conducted a diary-PPM comparison for AC-formatted stations in the three markets and found similarities to the pubcaster study.

In addition, he found that for AC stations, real AM drive spikes at 8:30 a.m. and 9 a.m., coinciding with "at-work" listening, that can also be "at-home" listening. Diary results are similar, he said.

PPM will show audience turnover more rapidly than diaries, said McVay, meaning on-air formatics "must be executed flawlessly." His study, "AC Through the Eyes of the PPM" is available at [www.mcvaymedia.com](http://www.mcvaymedia.com).

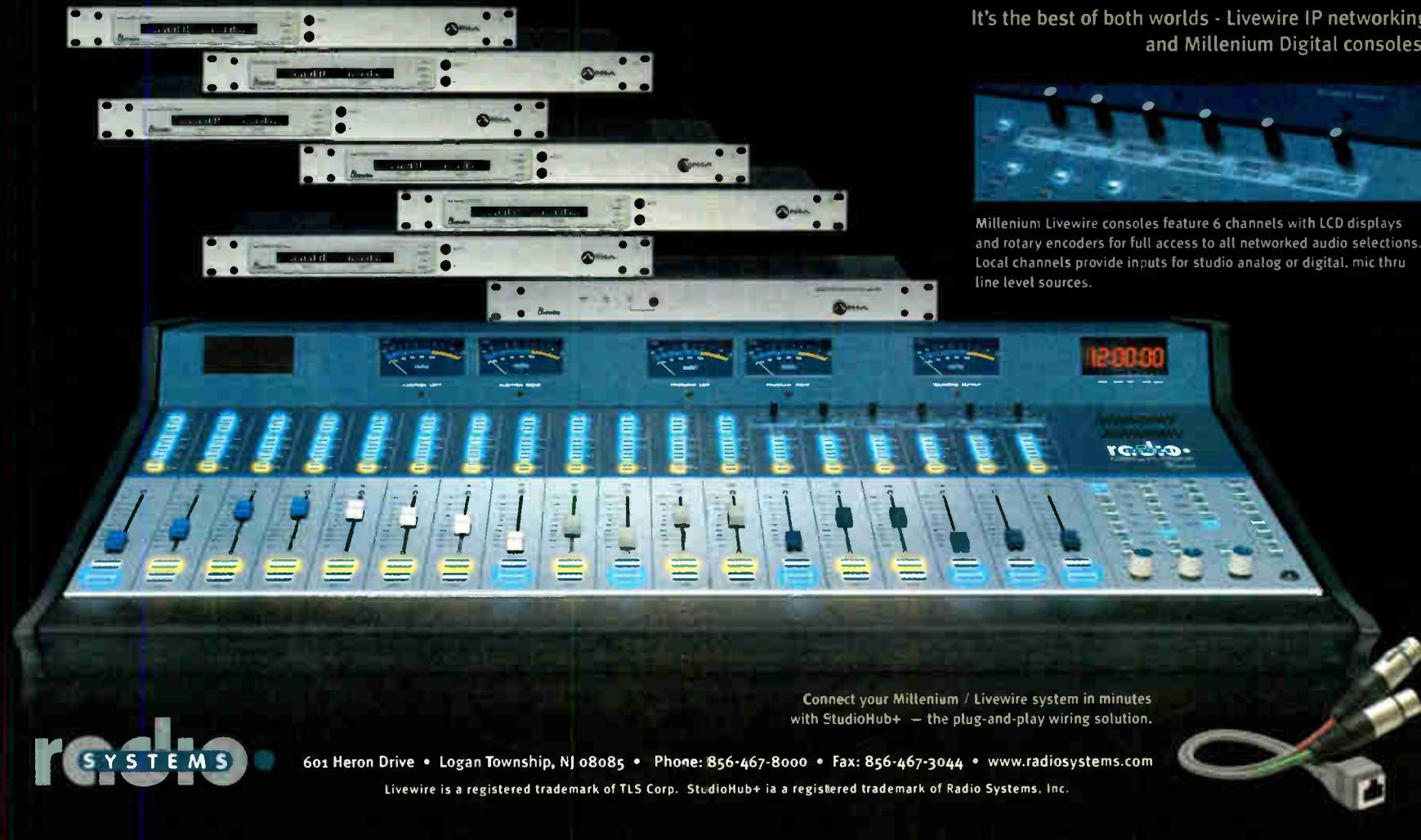
## Try Livewire on Us!

Livewire IP networking is now available built-in to our Millennium Digital consoles. You can wire and mix your studio sources locally and economically, while accessing facility-wide sources via the Livewire network. Scale-up your system anytime by adding more consoles, Axia nodes and software — all connected via a standard Ethernet network.

It's the best of both worlds - Livewire IP networking and Millennium Digital consoles!



Millennium Livewire consoles feature 6 channels with LCD displays and rotary encoders for full access to all networked audio selections. Local channels provide inputs for studio analog or digital, mic thru line level sources.



Connect your Millennium / Livewire system in minutes with StudioHub+ — the plug-and-play wiring solution.

**radio**  
SYSTEMS

601 Heron Drive • Logan Township, NJ 08085 • Phone: 856-467-8000 • Fax: 856-467-3044 • [www.radiosystems.com](http://www.radiosystems.com)

Livewire is a registered trademark of TLS Corp. StudioHub+ is a registered trademark of Radio Systems, Inc.

# Blogs

► Continued from page 1  
that could not be presented due to lack of time.

Listeners may express feelings that the host let a particular guest off easily, and should have asked tougher questions. Currently WGN maintains nine blogs on its Web site.

Reflecting on ideas to build a successful station blog, Eck said, "One of the most important things is making a commitment to keep up with it, and make sure there is new and exclusive content." In this way, she adds, it is similar to maintaining a Web page.

While blogs can provide another way for listeners to connect with the station, there can be a downside.

Debbie Chavez, program director for KGMI(AM), a news-talk station in Bellingham, Wash., said, "We started the blogs about a year and a half ago, and allowed listeners to post comments. Things quickly deteriorated into negativity and character assassination.

"It became clear that when you allow people to be anonymous, it brings out the worst in some of them."

Even worse, Chavez noted, was an incident where a poster made libelous comments and signed using someone else's name. The potential of bad PR for the station and legal liability for slander was enormous.

KGMI quickly changed its blog policy, requiring posters to e-mail their com-

ments to station hosts, who could elect to post them on the blog, or not.

"With the new policy, the mean-spirited messages virtually disappeared," said Chavez. "People still had criticisms about some of our programming, but they were much more civil and thoughtful about how they presented themselves."

She said stations thinking of adding blogs should assign someone to screen all the postings. "Some people will scream about freedom of speech, but you need to think about the station's image and reputation."

For WFMU(FM), a listener-supported station in Jersey City, N.J., with a freeform radio format, blogging has been a successful venture, but not in the ways



Blog page at KGMI

## Online Strategy

There can be many facets to an online presence: a Web page, streaming content, podcasts, blogs and emerging media.

As the aggregate audience for traditional AM-FM broadcasts has declined, many observers believe stations need a comprehensive plan for how to embrace established and emerging online technologies.

At WFMU, General Manager Ken Freedman and staff have developed an online strategy that develops a new audience and engages them in unconventional ways. Freedman notes that blogs are just one part of a larger online strategy, which includes streaming both FM radio and independent content, a Flickr presence, a Myspace presence, online archiving of radio and Internet content and starting next year, legal downloads of music.

Freedman notes that the online audience for WFMU's streams has been increasing while the radio audience has declined slightly.

Despite its rather large online presence, WFMU has a staff of three. Freedman said the station has been able to deputize listeners and readers to develop much of the content. Initially the staff did most of the writing and production, but that quickly changed.

"Any big site ends up using readers to do the work." He cites Fark.com and Wikipedia as examples.

initially expected.

General Manager Ken Freedman said, "When we launched 'Beware of the Blog' in 2004, we thought it would attract listeners to the radio programming. But the blog is such a different medium that we were not able to attract the blogosphere audience to radio.

"Instead, it brought listeners, viewers and readers to our world, but not to the radio side." He said there is some crossover between the two media, but it has been minimal. Some bloggers donate

money to WFMU during radio fund drives, but this too is a small number.

## Content

The trick for success with blogs, according to Freedman, is for radio to think of itself as a content provider, delivering photos, articles, videos and alternative radio programming via the Web.

"The rules of radio don't apply to the blogosphere. Blogs can be more powerful than radio in some ways. Radio is ephemeral, while blogs leave a fingerprint."

He cites an example of post on the station blog about a man in Romania with a

See BLOGS, page 8 ►

# KINTRONIC LABS

1.423.878.3141 FAX: 1.423.878.4224

VISIT US: [www.kintronic.com](http://www.kintronic.com)

EMAIL: [kti@kintronic.com](mailto:kti@kintronic.com)



## 5-TOWER AM TRIPLEXED DIRECTIONAL ANTENNA SYSTEMS

## PROUD TO SERVE AND MANUFACTURE IN THE USA SINCE 1950



OUR CUSTOMER IS FIRST PRIORITY!

DESIGNED FOR IBOC

FEATURED: WKOX, WRCA, WUNR AM RADIO BOSTON, MASSACHUSETTS

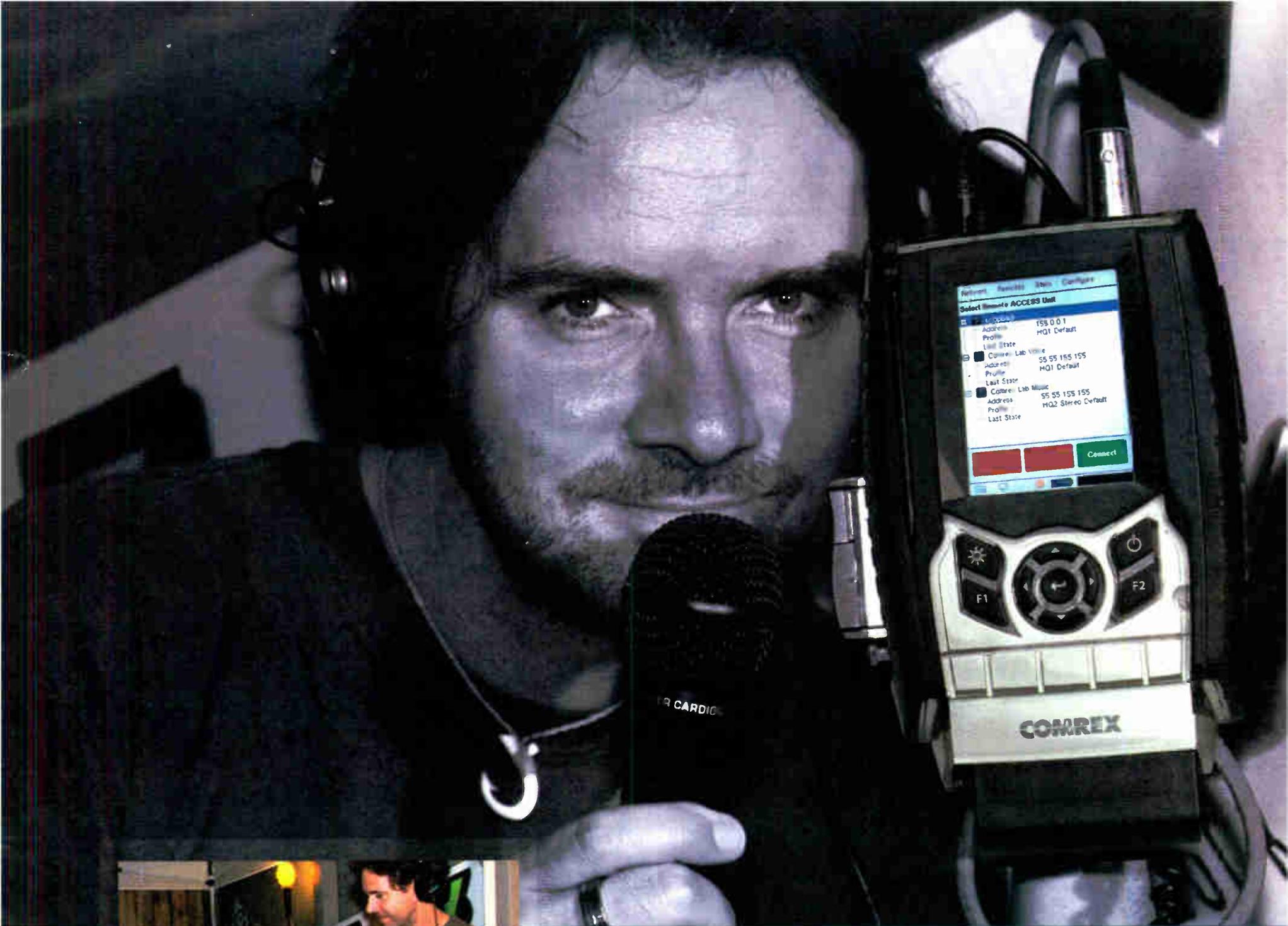
WKOX- 50kW/50kW, DA-2 ON 1200kHz

CLEAR CHANNEL COMMUNICATIONS WRCA- 25kW, DA-D & 17kW, DA-N ON 1330kHz

BEASLEY BROADCASTING WUNR- 20kW/20kW, DA-2 ON 1600kHz

CHAMPION BROADCASTING

# SATISFACTION! CRAFTSMANSHIP! DEPENDABILITY!



Shark, shown interviewing BERT MCCRACKEN, lead singer for THE USED, says: "When Comrex told me that their internal code name for ACCESS was "THE NEXT BIG THING" I got it right away. This IS BIG - I was live, on the air, in places I could NEVER have gone with regular old technology. THANKS COMREX!"



## Impossible Remote? Nah, You've Got ACCESS.

### Meet Another Real-World Super Hero...

Live coverage of *Next Big Thing 7*, Tampa's 15-band, two-stage, 20,000 screaming fan concert, seemed daunting. But it couldn't have gone smoother for Shark, Cox Radio's 97X Program Director and afternoon host. When covering an event like this, Shark would normally be battling for a frequency with all the wireless mics, and getting back stage to interview all 15 bands with a live wired mic was just impossible. ACCESS pulled it off without a hitch. Shark went live with the push of a button and not a care in the world. Covering even the gnarliest live event is a natural for ACCESS.

ACCESS delivers mono or stereo over DSL, Cable, Wi-Fi, 3G cellular, satellite, POTS (yep, ACCESS is a full featured POTS codec and works seamlessly with Matrix, Vector and Bluebox)—plus some services you may not have even heard of. Given the challenges of the public Internet, it's no small boast to say that ACCESS will perform in real time over most available IP connections.

Contact Comrex today and find out how ACCESS can make you become a Real-World Super Hero—wherever you are!

«ACCESS»

Toll Free: 800-237-1776 • www.comrex.com • e-mail: info@comrex.com  
19 Pine Road, Devens, MA 01434 USA • Tel: 978-784-1776 • Fax: 978-784-1717

Put Comrex On The Line.  
**COMREX**

FIRST PERSON

# The Computer Ate My Life

by Richard Factor

In accord with our page 1 story about blogs, we share this recent related posting from Richard Factor, chairman of Eventide. Read more of his personal musings at [www.priups.com/rikblog](http://www.priups.com/rikblog).

What have I done with my blog? I have migrated it. Note that it didn't itself migrate, which would confirm "migrate" as a *v.t.*, because, even though blogs seemingly have a life of their own, they do not possess volition. So, contra-dictionary, but in tragic accord with current usage, I have, in the best *v.t.* fashion migrated the blog to my new computer.

Q: What new computer?

A: My new Mac Pro.

Q: You got an Apple computer? After all your whining to and about Steve Jobs?

A: Yes I did. But not in a spasm of conversion or even remorse, as you will see.

How can you tell when it's time to get a new computer? Simple! As you demand more and more from the old computer, it starts slowing down.

I'm an open-window kind of guy, and it had gotten to the point that switching

favored purchasing a new one.

I asked a few computer experts at work: "I need a new Windows computer that won't waste my time." They universally recommended a "Mac Pro." (A small universe, to be sure.)

My protestations that I wanted to run Windows impinged on rigid cilia: "You want a Mac Pro, it will run Windows better than a Windows machine," I quote with sufficient accuracy.

I agonized over this for many months. I would go to the Apple site and configure my new machine, a remarkably simple process. I would look at the price, a remarkably irritating process, and finally abandon my quest. Until I clicked on something on the old computer and was forced to wait.

The logjam finally broke when I asked one of the gurus whether I could order the Mac with one of the smallest hard drives, and then replace it with several much larger disks instead of having the OS live on the small one. I'm used to the unending hassle of trying to replace a Windows OS disk with a larger one, and I was told that the Apple isn't like that at all. A good thing, too, because Apple overcharges for disks by even more than Dell and HP.

**Q: You got an Apple computer? After all your whining to and about Steve Jobs?**

**A: Yes I did. But not in a spasm of conversion or even remorse, as you will see.**

between windows was taking more time than I have. Adding applications, as one tends to do, was like pouring molasses on the CPU. Each time I clicked on something and had to wait, I would calculate whether I could commission a new computer in less time than I would spend over the next year or so waiting for this one to do its job.

Because that calculation always worked out in favor of the *old* computer, I would then add in the annoyance factor of being discommoded many times a day as opposed to spending days setting up the new one, itself only a single incidence of discommodance. *That* calculation

I ordered the Mac Pro and found that redisking it was almost trivial. Apple has a program called "Boot Camp," which allows the machine to run Windows as a native application.

Yes, I considered Parallels, to the extent of actually purchasing it, but I got nervous about it for various reasons and decided I didn't really need a Mac and Linux OS running at the same time as Windows. I may well reconsider actually using Parallels once I get my life back.

#### Mac Pro RIKL Review

Well, no. A RIKL Review of the Mac Pro will take up too much time for this

partially-living, alleged-human. Now that I'm in the Mac camp, at least hardware-wise, I'll consider doing one in the future.

Meanwhile, a few observations:

I'm very used to setting up Windows machines, with the interminable OS upgrades. Getting the latest upgrades into the Mac takes a tenth of the time, if that. A Mac PLUS. The rest of the setup seems to be of Windows-equivalent difficulty, or lack thereof.

One complaint: The monitor jacks, in the rear of the machine, are labeled in the tiniest font they could find. Steve baby! It's on the back of the machine — you can easily make it legible without offending your sense of "style"!

And, since I mentioned Steve Jobs, let me mention the "out of the box experience."

- The first thing you see is a small box labeled "Designed by Apple in California." Tasteful and nice, especially, since it was probably printed in China or Taiwan or Singapore along with the manufacture of the computer.

- The next thing you notice is how easy the Mac Pro is to remove from the box. The large handles and carefully designed packaging are a far cry from the usual Windows-box struggle. (The fact that the handles prevent you from actually putting anything large on top of the Mac is only a

small inconvenience. As a last resort, you can probably saw them off.)

- The final thing, and Steve will absolutely hate hearing this, even though it isn't a whine of mine: *The computer smells!* It's not an unpleasant smell, but a very *recognizable* one. After all the trouble they go to to make the Apple user experience different and exemplary, as soon as you turn on this multi-kilobuck product, the room smells like you just bought a cheap, imported \$100 surround-sound receiver. Poor Steve!

So, my blog has experienced a migration, and I'm typing this on my WinMac or whatever it should be called. I'm still in the process of getting all the stuff off the old computer and making it work as I want it to. Not a trivial task, but one that approaches an asymptote of only minutes per day, leaving some time to blog.

*Update, December 2007:* The Mac Pro still seems to be a fine piece of hardware, and it doesn't smell any more.

It does have one very minor problem occasioned by Apple's propensity to "think different." Instead of using an ON/OFF switch to — you know — turn it on and off, it seems to have a proximity button. One day I accidentally rested my foot against it and the computer shut down, taking all my open windows with it. My options were to either move it back a few inches or remove an important toe.

Call me conventional, but I decided to retain my ability to walk. 🌐

## Blogs

► Continued from page 6

rare skin disease. Pictures led to a discussion of the disease, dermatologists got involved, readers felt moved to get the man some help.

With treatment, the man's condition improved till he was almost cured. "That never would have happened with a news story on radio," said Freedman.

Large media organizations may find other uses for blogs. The Canadian Broadcasting Corp. has the usual fare of blogs for CBC Radio 2 and Radio 3, which enable listeners and viewers to post messages and photos while commenting on programs. They also maintain *insidetheCBC.com*, the official CBC employee blog.

Posted here are stories such as a

description of the arrest of a CBC cameraman while filming a demonstration, the death of a longtime CBC producer and a story about a long-overdue employee promotion. The site is written and moderated by a number of CBC employees.

While blogs and radio are different media, Freedman notes similarities. "An active blog is like a great radio station. They both have a distinct personality and great content."

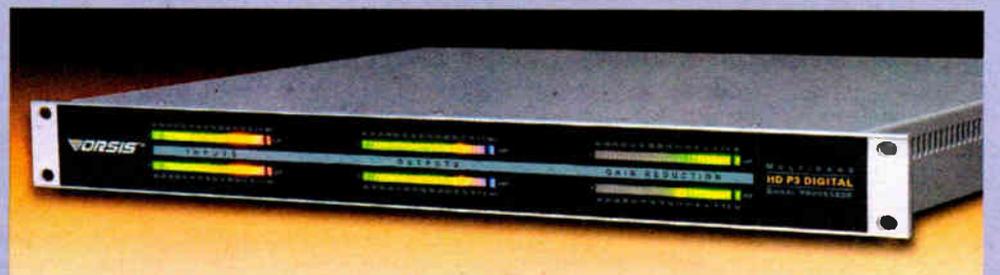
Experts say that as the digital age evolves and terrestrial audiences shrink, stations need to think about how they utilize the Web to extend their brand and connect with listeners. An active Web page, streaming and podcasting are a great start, but more can be done. Music and news/talk stations have different needs, but with planning, both may be able to expand their relationships with the audience by entering the blogosphere. 🌐

The rules of the game have changed... and the Vorsis HD-P3 is ready to play!

### Vorsis HD-P3

Superb for HD2/HD3 channels, monitoring chain, pre-processor, and more!

The old processing strategies from the analog days just don't sound very good on HD2 and HD3 channels. The more aggressive the processing is, the more problems there will be once the audio passes through the HD encoding process. For HD2 and HD3 channels "less is more". The HD-P3 is the ideal balance... enough flexibility and DSP horsepower to create your signature sound, but gentle enough to avoid digital artifacts in the HD coding process.



List price: ~~\$2395~~  
For the best price,  
always call Bradley.

BROADCAST  
**BRADLEY**  
PRO AUDIO

Please call 800-732-7665

[www.bradleybroadcast.com](http://www.bradleybroadcast.com)

attached a picture in white contact me  
for more info. big\_plans #221542

### STEADY SEEKING LADY

I am looking for a male partner (38-50) who is willing to be exclusive with me for a long term relationship. Not asking for marriage. I am of average build, dark hair, brown eyes and am an Indian female. I have a wonderful job and attend some classes a couple of nights a week. I have two kids who stay at home with me. They are very precious to me. And they are not going to be a hindrance to our dating. I have a full and busy life. Therefore, the expectation is to see each other on a steady basis, and at the same time, being flexible. precious\_me #331252

### I LOVE MUSIC. YOU LOVE ME

I'm an indie/hipster girl who adores music and going to clubs and shows. Some of the bands that I'm into are Interpol, The Arcade Fire, Blonde Redhead, Bauhaus, The Smiths, Morrissey, etc. I'm into indie rock, electronica, punk, pretty much anything. I drink and smoke occasionally. I'm 21, 5'8", light-skin, dark brown hair/eyes. I work, am well-educated, funny, spontaneous, nice. #2215234

### HANDSOME RAKE

Out of work leaf raker/bagger seeks whimsical beauty with un-kempt auburn or chestnut hair, cool coarse hands and a penchant for whistling. mellow\_mo, 28, #101318

### LET'S CONNECT

Radio engineer seeks stable long distance relationship. Need to connect immediately. Everywhere I go, I see broadband internet, but I just never hook-up. I need to meet that special someone that will plug me in so I can be heard. Must be reliable, connect easily, forgive errors and adapt to change. Should come from a good family. easy\_going #101352

### SIMPLICITY HERE

Simply put, I'm looking for a fun, casual relationship with only one person. That means one person for me and one person for you. :-). Every woman wants to feel safe with a partner, whether it's serious or not. It's key to her feeling comfortable to express her more intimate nature. I don't ask for much other than to hang out, enjoy your time with me and be available to chill.

### MR. RIGHT

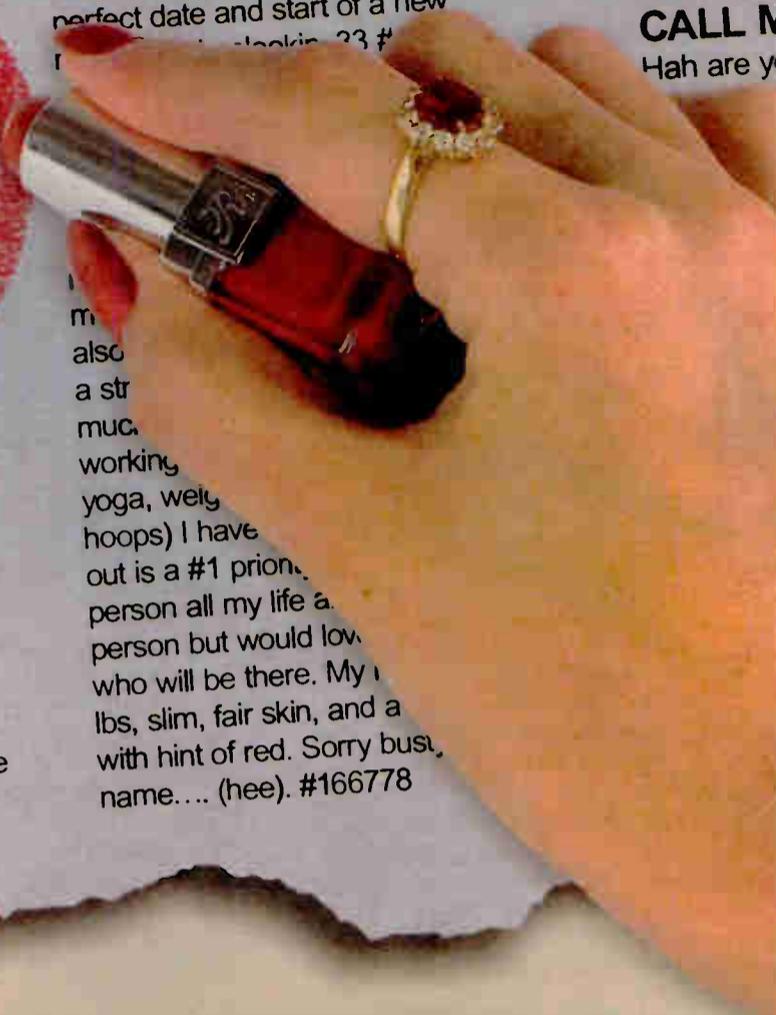
I'm actually posting this on behalf of a friend. Since she's been single she hasn't found the right guy and I'm doing this in hopes of helping her find Mr.Right. After you and I talk, if you are chosen then you will get to go on a date with her and who knows, it could be the perfect date and start of a new relationship. Looking 33 #

### IN LOVE

Visiting LA to meet a C must be ea Please send response :

### CALL M

Hah are yo



## Connect with Zephyr/IP: The World's Most Advanced IP Codec

The new Zephyr/IP brings an effective package of sophisticated technology to the world of IP audio codecs. Optimized for operation over the public Internet and mobile phone data services, the Z/IP delivers when others can't.



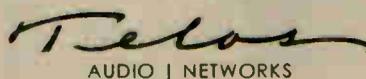
**NEW "AAC-ELD" (ADVANCED AUDIO CODING-ENHANCED LOW DELAY) CODEC:** Z/IP introduces a new codec technology invented by the experts at Fraunhofer Institute, the people who brought us MP3 and AAC. Optimized for interactive IP applications, AAC-ELD combines features from MPEG AAC-LD and the Spectral Band Replication technology used in AAC-Plus. It's the most powerful audio coding tech on Earth, offering outstanding bitrate efficiency, low delay, and support for packet loss concealment.

**NEW TELOS ACT (AGILE CONNECTION TECHNOLOGY):** Z/IP brings automatic on-the-fly bitrate adjustment to IP codecs - a first. The Z/IP constantly monitors the network and sets its bitrate to the optimum value. A dynamic adaptive receive buffer also responds automatically to network conditions, minimizing the effects of the varying bandwidth and jitter that occur on real-world networks.

**EFFECTIVE PACKET LOSS CONCEALMENT:** The Internet usually has packet loss on audio streams, often ranging up to a few percent. The new AAC-ELD codec combined with ACT can conceal this loss, making for smooth audio even with rough network conditions.

**TELOS-HOSTED Z/IP SERVER WITH DIRECTORY SERVICES:** Enables you to look up, view the status and connect to other Zephyr/IP users worldwide, even through the toughest firewalls.

**A STATE OF THE ART USER INTERFACE:** And so you don't feel like you are on a blind date, we give you all of the status information you need on a sharp-looking color LCD which shows live network statistics and trace-route maps in an easy-on-the-eyes graphical interface.



Telos-Systems.com

Telos, Zephyr and Z/IP are registered trademarks of TLS Corp. ©2008. All Rights Reserved

# Licensing Fees See Steady Rise

*RMLC Says ASCAP and BMI Contracts Have Gone Up, Though Not Dramatically*

by Mary Ann Melody

Webcaster music royalty fees and proposed radio "performance taxes" get the headlines, but existing music licensing fees for terrestrial radio broadcasters also have increased steadily over the past five years.

The Radio Music Licensing Committee negotiates the industry rates with two of the three major licensing organizations, ASCAP and BMI. The third, SESAC, negotiates its own fees with broadcasters. These organizations distribute the fees to songwriters and publishers.

Under the current ASCAP and BMI contracts, which expire at the end of 2009, fees will continue to increase about 4 percent each year, said Keith Meehan, executive director of the RMLC. The industry-wide 2007 fees totaled \$214 million, with a contractual 4 percent increase in 2008 and an additional 4 percent in 2009, he said.

"They've gone up but not dramatically," Meehan said. "From 2006-2007, the increase was less than 3 percent — virtually 2.5 percent."

## That was then ...

Traditionally, fees payable to ASCAP and BMI were calculated as a percentage of each station's advertising revenues.

When contracts were negotiated in 2002 for BMI and in 2003 for ASCAP, this practice was changed to a formula in which some stations' fees are determined based upon prior fees and an incremental amount that is audience-based, according to Meehan.

Bob Bittner is the owner of WJIB(AM) in Boston, a small station in a big market. He was taken aback last year when his combined ASCAP and BMI fees for his beautiful music adult standards station jumped from \$5,200 in 2006 to \$33,000 in 2007.

"Stations in the top 100 markets hovering in the middle of the ratings were zapped with ASCAP and BMI fees," he said.

Bittner said while he was not aware of the specific changes in the RMLC fee allocation structure, he did know there was a change in the formula. "I did not know it would be so devastating."

Meehan said to understand why some of the most popular stations in these larger markets are charged fees based on ratings, a little history is needed.

In the radio music licensing fee allocation process, stations are divided into two distinct groups, Meehan said. The first are stations that operate with a program license, mostly the talk, sport and business format radio stations. "They don't do a substantial amount of feature

music," Meehan said.

The second group consists of stations that operate under a blanket license. "Those are stations that do have a music-intensive format," he said.

Stations in this group are subdivided into three categories: those in the top 100 Arbitron-rated Metros that have an average quarterly hour (AQH) of 5,000 listeners or greater; stations in the top 100 Metros that have an AQH of 5,000 or less; and all other remaining stations, Meehan said.

Fees for stations in the first category, with an AQH of 5,000 or greater, are determined using ratings data, Meehan said.

"We calculate the fees payable by those stations using the average of the spring and fall books for the year two years prior to the allocation year," Meehan said. "For the year 2007 we would use the average ratings for the spring and fall of 2005."

By 2005, WJIB's listenership rose above that 5,000 listener benchmark, but the increase in fees did not take effect until last year, which Meehan said is standard.

"In 2005 the station's rating moved over the 5,000 AQH and that's what caused the dramatic increase in fees," Meehan said.

## Base-year formula

Prior to 2002 for BMI and 2003 for ASCAP, fees payable to these organizations were a percentage of the station's revenues, he said.

"So as a station's revenues increased throughout the '90s, stations fees increased rather dramatically," Meehan said.

As things stand now, the year 2002 for BMI and 2003 for ASCAP will remain the base year for the old revenue-driven formula, Meehan said.

"Whatever stations pay for the last year of the revenue-based fee, that becomes the base fee and to that we allocate on an incremental basis the incremental amount that the industry is paying each year over that [base] figure," Meehan said. "So it gradually moves away from the revenue-based license fee."

Meehan said music licensing fees for stations that fall into those other two categories — in the top 100 Arbitron-rated Metros with an AQH under 5,000 listeners and any remaining stations — are not set by ratings.

"All other stations pay a percentage increase each year," he said. "Most stations fall outside of this ratings category."

## Raising awareness

Bittner, who holds a commercial license, is unique in the fact that he does not sell any advertising on his station.

"I'm an odd duck," he said. "I run it as a hobby. I don't sell commercials and I don't want to."

To counter the rise in his rates, Bittner asked listeners to raise the \$88,000 needed to cover operating expenses in 2007. They responded fully and quickly, something he proposes to other small stations in his situation.

"To keep diversity on the air and small, independent owners afloat, they could go listener-supported, too," Bittner said.

Other commercial broadcasters said paying the music licensing fees is an inevitable part of doing business.

"The philosophical arm is that if you're making more money, based upon

## RMLC

From Web site [www.radiomlc.com](http://www.radiomlc.com):

"The Radio Music License Committee represents the interests of the radio industry on music licensing matters. The objective of the Committee is to achieve fair and reasonable music licenses with ASCAP and BMI on behalf of radio stations and to assure that the radio industry pays no more than an equitable amount to any licensing organization. The Committee is dedicated and determined to restructure music licenses to achieve this equity and to negotiate licenses that reflect the realities of the current and changing state of the radio business.

"The Committee's goals are to eliminate the automatic increases based on station revenue growth and to create accessible and relevant per program licenses that offer a real economic choice to a large number of stations. ..."

the music that you're playing at your radio station, then the composers and people who put the music together should make some as well," said Dave Paulus, president and general manager, Tidewater Communications in Norfolk, Va. "I don't think that's objectionable."

Overall, Paulus said he wants to pay a fair rate.

"I just want it to be reasonable," he said. "It's one of my biggest bills of the month," which he said averages between \$15,000 and \$20,000 per month for all performance royalty fees.

Rich McMillan, operations manager, WLVE(FM) in Miami, also said he thinks the rates are fair overall.

"No one would want to pay more than you have to, but it's kind of an expected cost of doing business."

Meehan said the fee allocation negotiations are meant to help all broadcasters — large and small alike.

"The system that's now in place takes into account a station's audience," Meehan said. "The fee that stations pay is a performance royalty fee. So the larger the audience that's hearing the performance, the larger the fee that ought to be paid to the composer and publisher for performing that work. That makes perfect, logical sense."

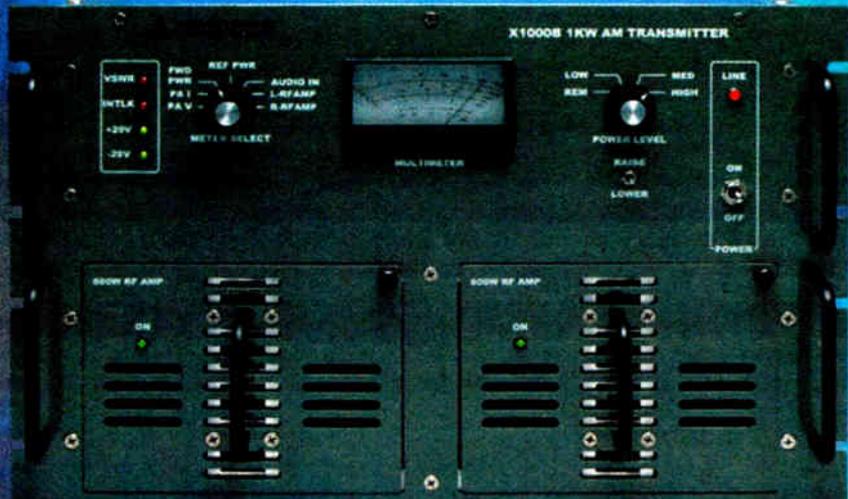
The third major organization, SESAC, did not return calls for this story. According to its Web site, fees are not determined based on revenue. "Fees are calculated based on the station's market and spot rate," the group states on its Web site.

It continues: "Generally, the scope of the public to which the SESAC repertory is being performed is the main factor in SESAC license fees for broadcasters. For example, a station's MSA or DMA are used in determining radio and television license fees." ●

## Write to RW

Send e-mail to [radioworld@nbmedia.com](mailto:radioworld@nbmedia.com) with "Letter to the Editor" in the subject field; fax to (703) 852-4585; or mail to Reader's Forum, Radio World, 5285 Shawnee Road, Suite 100, Alexandria, VA 22312-2334.

**EXPECT MORE FROM YOUR AM TRANSMITTER**



**Armstrong Transmitter X-1000B**  
1KW HD Radio ready AM Transmitter for under \$10K

Built with dual hot-swappable 600 Watt RF modules capable of 150% modulation, X-1000B can bring that major market sound to your radio station. Engineered with the latest technological innovations, X-1000B offers high reliability, built-in redundancy and it is HD Radio ready.

Best of all, our customers tell us that the money they save running the X-1000B pays for itself with savings in electricity and maintenance costs over an older transmitter ... and as a bonus they get exceptional reliability and that major market sound for free.

But, don't take our word for it. Talk to our customers already on-the-air with the X-1000B. Call or email for a users list and decide for yourself why owning this transmitter is a no-brainer.

**ARMSTRONG**  
TRANSMITTER CORPORATION

Tel 315-673-1269 / [sales@armstrongtx.com](mailto:sales@armstrongtx.com) / [www.armstrongtx.com](http://www.armstrongtx.com)

HD Radio is a registered trade mark of iBiquity Digital Corporation.

# Broadcast Software

1-888-274-8721

www.bsiusa.com

## Radio Automation



**Simian** - radio automation and digital playout system.

## Instant Audio



**Stinger** - Instant Access to 288 'rapid-fire' audio files.

## Digital Cart Player



**WaveCart** - the original on-screen cart machine replacement.

## Audio Logging



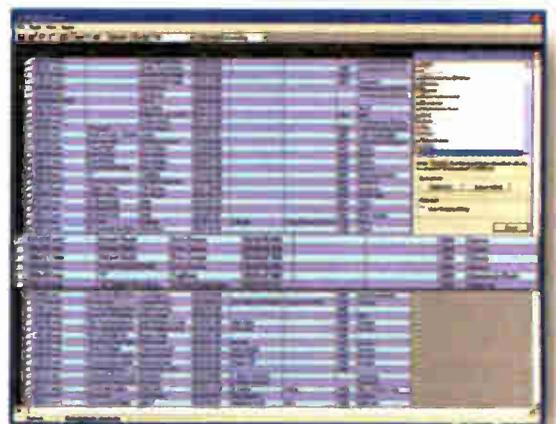
**SkimmerPlus** - skimming and audio logging with web playback.

## Complete Systems



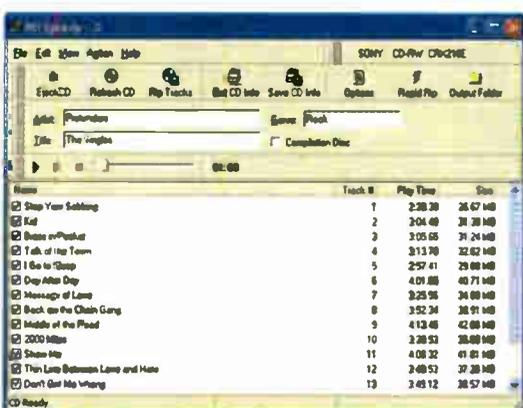
**Systems** - fully configured with hardware, software and music.

## Music Library



**MusicStore** - select from over 48,000 ready-to-play songs.

## CD Ripping



**Speedy** - fast CD ripping with automatic file tagging.

## Sound Cards



**AudioScience** - professional sound cards built for broadcast.

## Remote Control



**Trigger & Relay Kits** - for GPI/O and satellite operation.

**Broadcast Software International**  
503 E. 11th Avenue  
Eugene, Oregon 97401 USA  
Direct: 541-338-8588  
Fax: 541-338-8656  
www.bsiusa.com sales@bsiusa.com





# Zero In on RF Hot Spots

by John Bisset

What better way to celebrate Groundhog Day than with a resolution to commit to furthering your education?

Are you SBE Certified? Did you know that the SBE sends a letter of congratulations to your boss — the station owner or GM — when you've successfully completed a level of SBE Certification? What better ammunition to use for a salary increase? If you're looking for a new job, SBE certification is really the only officially recognized broadcast engineer certification program.

We've all got good intentions, but finding the time to study and take a test can be a challenge. So here's an alternative.

Start out with some baby steps by signing up for a free series of four one-hour webinars starting later this month and sponsored by my day-job employer, Broadcast Electronics. The series will be based on the AM-FM Transmitter Workshop I've offered at NAB spring and fall conventions.

These will be the first webinars in BE's Radio Pro Online School 2008. You will not only learn but also earn SBE recertification points by attending all four sessions, and pick up some tips at the same time.

Whether you are an engineering newbie or have worked on more transmitters than Abraham has ancestors, these sessions offer practical information you can use. Basic AM and FM theory will be explained in the first session, and a session on troubleshooting real-world transmitter problems is included.

Also covered will be routine maintenance techniques for engineers managing multiple sites, along with a survey of potential HD Radio installation problems for those planning a future HD Radio upgrade.

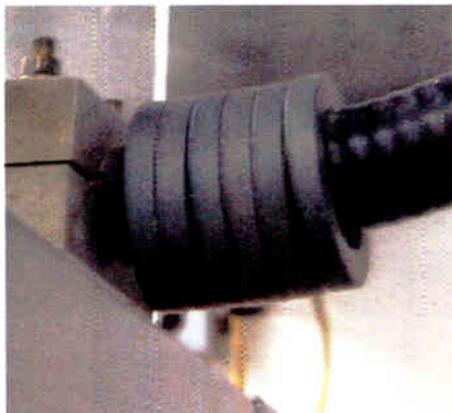


Fig. 1: These coax toroids were heating to 120° F.

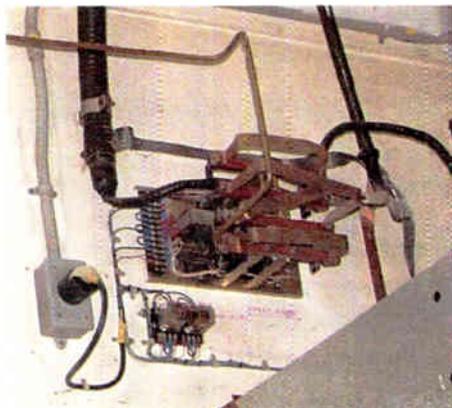


Fig. 2: Braided grounding for the coax shields was suspected.

The workshop consists of four one-hour sessions to be conducted on Feb. 19, 21, 26 and 28 at 4 p.m. ET. Participants will be able to contribute questions; the sessions will be archived for later streaming for those who cannot attend in real time.

Certified SBE engineers who participate in all four (live or offline) may be eligible for one-half credit towards SBE recertification. See [http://sbe.org/Cert\\_Maint.php](http://sbe.org/Cert_Maint.php) for

details. No credit is available for attending fewer than four sessions.

Enrollment opens on Feb. 4 and is open and free to all broadcast professionals, as well as those training in the field.

You can register or get more information by heading to [www.bdcast.com](http://www.bdcast.com).

\*\*\*

Michael Barnes is the technical director for the Salem Radio Network in Irving, Texas. Michael asks if you've priced rack-mount brackets for LCD

the rack and the problem is solved.

This is probably not the best solution for a showcase studio but it works great in a rack room or anywhere else you need a rack-mounted monitor and where aesthetics aren't number one on the list.

If you implement this idea and save your station several hundred dollars, let your manager know. These kind of simple tips remind the GM that you're keeping the bottom line in mind as you manage your engineering department.

Michael Barnes can be reached at [mbarnes@smradio.com](mailto:mbarnes@smradio.com).

\*\*\*

Engineers enjoy case histories. Here's an interesting one from Laverne Siemens of Canada's Golden West Media.

About two years ago, Laverne and his crew installed a Nautel XR-12 transmitter at one of their sites. After the installation, they noticed that the coaxial toroids shipped by the company and installed on the transmission line and control lines had been running too warm.

Laverne checked for ideas with the factory; they offered tips on grounding and even shipped extra toroids. The crew worked on the grounding around the building and inside as well, but with no improvement with respect to the heating issue.

Using an infrared thermometer, Laverne was getting readings of about 50° Celsius (122° Fahrenheit) on the toroids. Finally he zeroed in on the RF

See HOT SPOTS, page 14 ►

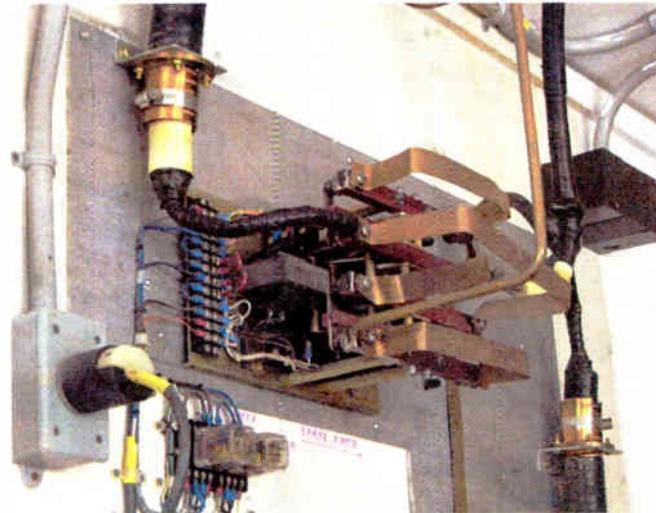


Fig. 3: Everything is normal after the lines were grounded properly.

monitors lately. You may find they cost more than the monitor itself!

He offers a solution that is less expensive but equally effective. He bought an inexpensive wall-mount bracket used to mount these monitors, then fastened it to a 4RU 19-inch rack panel.

The whole thing ran less than \$25, and the LCD monitor mounts easily to the panel bracket. Screw the rack panel into

on grounding and even shipped extra toroids. The crew worked on the grounding around the building and inside as well, but with no improvement with respect to the heating issue.

Using an infrared thermometer, Laverne was getting readings of about 50° Celsius (122° Fahrenheit) on the toroids. Finally he zeroed in on the RF

## The Best FM-Translator Receiver, Hands Down!

Your obvious choice for all critical off-air pickup applications!

Composite/MPX and L/R audio outputs.

Passes RDS and SCA subcarriers.

Wide/narrow IF bandwidth selection.

Accurate front-panel metering of total-mod, L/R program audio, signal strength and multipath.

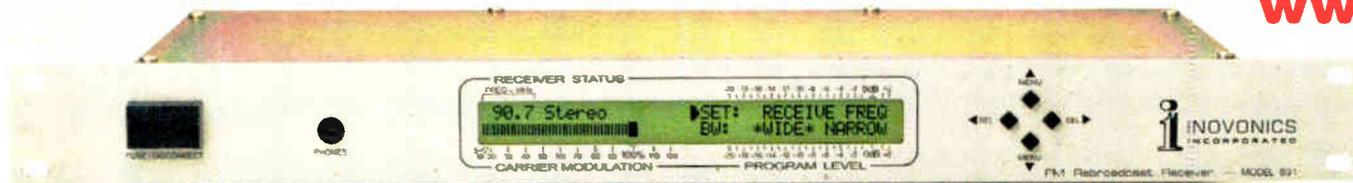
Carrier-loss muting and built-in overdeviation protection.

'Tally' outputs for remote alarms of carrier loss and program audio channel loss.

Model 631  
\$1390

IN STOCK NOW!

For full technical details, visit  
[www.inovon.com](http://www.inovon.com)



**Inovonics**  
1305 Fair Ave. • Santa Cruz, CA 95060  
TEL: (831) 458-0552 • FAX: (831) 458-0554  
[www.inovon.com](http://www.inovon.com) • e-mail: [info@inovon.com](mailto:info@inovon.com)

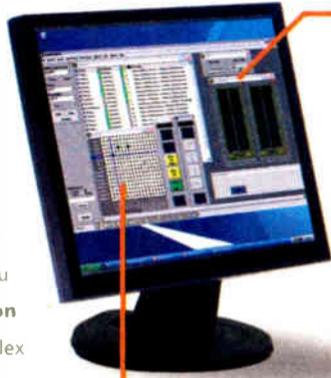
# You're looking at a complete audio-over-IP routing system.

(Just add Cisco!)

**Administer this** • The beauty of the Web is that you can get information anywhere. Same thing with Axia: you can set up and **administer an entire building full of Axia equipment** — audio nodes, consoles, virtual routers, whatever — from your own comfy office chair. All you need is a standard Web browser (PC or Mac, we like 'em both). Put an Internet gateway in your Axia network and you can even tweak stuff remotely, from home or anywhere there's a Net connection. Hey, isn't it time for a Mochachino?

## It's not rude to point

• Little kids tell mommy what they want by pointing — a pretty intuitive way of doing things. PathfinderPC software gives talent the same convenience. You can **build custom "button panels"** to execute complex operations with just one click. You can map these panels to controller modules on Element consoles or to turret mounted controls, place mini-applications on studio computer screens, even run them on touchscreen monitors.



**Automation station** • Wouldn't it be cool to have a **self-monitoring air chain with silence-sense** that can fix problems, then e-mail a status report? To be able to switch your program feed from Studio "A" to Studio "B" with one button? Or build custom switching apps and scheduled scene changes based on Boolean logic and stacking events? PathfinderPC software does all these things and more. But unlike HAL 9000, it doesn't talk back to you.

**Nothin' but Net** • Did you know you can plug a PC directly into an IP Audio network to exchange audio? Can't do that with a mainframe router. Well, you *could* add more input cards to the mainframe, buy high-end audio cards and run more wiring... but with Axia, you just install the **IP-Audio Driver** on any Windows PC to send and receive pure digital audio right through the PC's Ethernet port — no sound card required or additional router inputs needed. The single-stream version is great for audio workstations; the multi-stream version lets you send and record **16 stereo channels simultaneously** — perfect for digital automation systems.

**Jammin' on the mic** • Radio studios and microphones go together like Homer Simpson and donuts. Unfortunately, so do preamps, mic compressors, EQ boxes, de-essers — let's face it: most studios house more flying saucers than Area 51. Axia helps clean up the clutter by including mic preamps with our Microphone Nodes; not bargain-basement units either, but **studio grade preamps** with headroom enough to handle Chaka Kahn. Phantom power, too. And if you choose to use Axia Element consoles in your studios, you'll find world-class mic processing built right in: vocal dynamics (compression and de-essing) from the audio processing gurus at Omnia, plus three-band parametric EQ with SmartQ, available on every mic input. Rap on, Grandmaster.

**Push to play** • Axia Router Selector Nodes are **really advanced selector and monitor panels** that you can put anywhere you need access to audio streams. Like newsrooms, dubbing stations, or even the station's TOC, so you can monitor any of the thousands of audio streams on your network at a moment's notice. The LCD screen scrolls through a list of available streams; the eight Fast Access keys let you store and recall the streams you use most. There's even an input, for convenient connection of an analog or AES device. Sweet.

**Very logical, Captain** • Routing logic with audio used to be as hard as performing the Vulcan Mind Meld. But Axia makes it simple, converting machine logic to data and pairing it with audio streams. So **logic follows audio throughout the facility** on Axia's switched Ethernet backbone. Eight assignable GPI/GPO logic ports, each with five opto-isolated inputs/outputs, are built into every Element power supply, so you can control on-air lights, monitor mutes, CD players, DAT decks, profanity delays, etc. Got more than eight audio devices? Add a GPIO node like this one wherever you've got gear.

**AES yes** • You like your audio to stay digital as much as possible, right? We get that; our AES/EBU Audio Nodes let you plug AES3 sources right into the network. Studio grade sample-rate converters are inside; anything from **32 kHz to 96 kHz** will work. Oh, and there are 8 AES ins + 8 AES outs in each node. Digital distribution amp, anyone?

**Brains in the box** • The typical radio jock cares for studio equipment about the same as a five-year old cares for a puppy: haphazardly, if at all. That's why we **took the CPU out** of our Element modular console and put it in here, with the power supply and GPIO ports.

That means a greatly reduced chance of being taken off the air by a Coke spilled into the board. Because we know that you have better things to do on a Sunday night than trying to dehumidify circuit boards with a hair dryer.

**Put that in your pipe** • How many discrete wires can a CAT-6 cable replace? Well, a T-3 data link has 44.7 Mbps of throughput. But Axia networks' Gigabit Ethernet links give 1000 Mbps of throughput between studios — more than 22 times the capacity of a T-3; enough for 250 stereo channels per link — the **equivalent of a 500-pair bundle on one skinny piece of CAT-6**. Use media converters and optical fiber for even higher signal density. Think that might save a little coin in a multi-studio build-out?

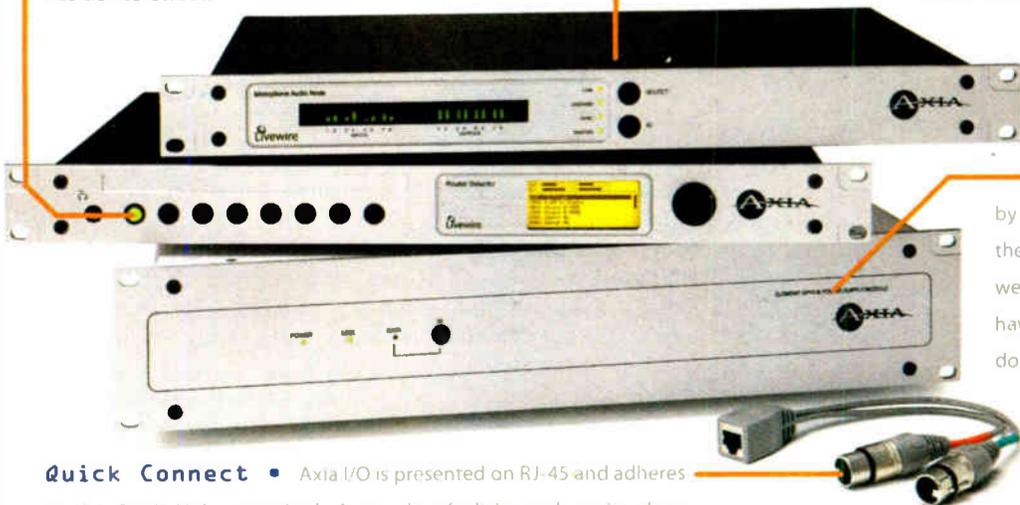
**Level headed** • These green, bouncing dots built into every Axia Audio Node are confidence meters. One glance and you know whether an audio source is really active — or just playing possum.



**Heavyweight champion** • This Axia StudioEngine works with our Element Modular Consoles (the fastest-growing console brand in the world, by the way) to direct multiple simultaneous inputs and outputs, mix audio, apply EQ, process voice dynamics, and generate multiple mix-minuses and monitor feeds on-the-fly. To make sure it delivers the reliability and ultra-low latency broadcast audio demands, we powered the StudioEngine with a fast, robust version of Linux — so fast that **total input to output latency is just a few hundred microseconds**. How can one little box do so much? There's a blazingly fast Intel processor inside with enough CPU muscle to lift a small building. Strong and fast: Ali would approve.

**You got to have friends** • Delivery system providers like ENCO Prophet, BSI, BF iMediaTouch, DAVID Systems and more all have products that **work directly** with Axia networks. So do hardware makers like AudioScience, International Datacasting, 25/Seven, Telos and Omnia. Check out the whole list at [AxiaAudio.com/partners/](http://AxiaAudio.com/partners/).

**Quick Connect** • Axia I/O is presented on RJ-45 and adheres to the StudioHub+ standard. A couple of clicks and you're done.



[AxiaAudio.com](http://AxiaAudio.com)

# Hot Spots

► Continued from page 12

contactor that is in line between the coax from the transmitter and the one going out to the towers. It is there to switch in the standby transmitter — which hasn't had to run once in two years. (Aren't new transmitters great?)

The people who built the site — not Laverne's crew — had chosen to tie the grounds of the coaxes coming to the contactor together with copper braid, seen in Fig. 2. The braids were clamped to the coaxes with hose clamps and in turn tied to the building ground strap.

On a hunch that the braid had too much resistance, Laverne and his staff redid the entire contactor installation by mounting it on an aluminium panel and then using proper coax mounting clamps to ground the coaxes to that panel, as shown in Fig. 3.

The ground strap was then bolted to the panel as well. The toroids are now running at room temperature of 15° C, 59° F.

Lavern Siemens can be reached at [lsiemens@goldenwestradio.com](mailto:lsiemens@goldenwestradio.com).

\*\*\*

If you haven't taken the plunge and purchased an infrared thermometer, you're missing out on a great maintenance and diagnostic tool.

In addition to locating RF hot spots, as Laverne did, the thermometer can zero in



Fig. 4: A handheld digital thermometer can zero in on hot spots.

on stressed ICs, and even spot loose connections or bad AC breakers — before they take you off the air.

Fluke announced its new model 566 Thermometer, pictured in Fig. 4. The rugged handheld thermometer combines contact and non-contact temperature measurement capability in an easy-to-use tool. The company promises 1 percent accuracy, the thermometer will span a temperature range of -40° F to 1202° F.

The Fluke 566 Thermometer is available at list price of \$379, one in a series of temperature measuring devices the company manufactures. For information visit [www.fluke.com](http://www.fluke.com).

*John Bisset has worked as a chief*

engineer and contract engineer for 39 years. He is northeast regional sales manager for Broadcast Electronics, and recently received the SBE's Educator of the Year Award. Reach him at (571) 217-

9386, or [jbisset@bdcast.com](mailto:jbisset@bdcast.com). Faxed submissions can be sent to (603) 472-4944. Submissions for this column are encouraged, and qualify for SBE recertification credit. ●



**WGBH** completed co-location of radio and television facilities into new premises. The radio operation added two pairs of active three-way SCM100ASL mid-field speakers by ATC (Acoustic Transducer Company); it also moved two pairs from its previous studio location.

John Voci, director of radio stations, told the supplier, "We imagine tracking happening in the music performance control room and then projects can migrate to the mastering suite. Those two rooms are also surround rooms." Systems were purchased from **Las Vegas Pro Audio**. ...

completed the first phase of its \$1.48 million contract with **Mississippi Public Broadcasting**.

The job is to install eight analog/HD transmission systems throughout the state. Phase 1 included systems for analog, HD1 and HD2 operation at WMPN in Jackson, WMAU in Bude, WMAV in Oxford and WMAH in McHenry. All systems include the Continental 816HD analog/HD transmitter; Continental HDe IBOC Exporter; the Nautel M50 Digital Exciter, the **Orban 8500HD** Audio Processor, and a **PSI IBOC** Importer.

Bob Buie is director of technical services for Mississippi Public Broadcasting. Richard Garrett is installation supervisor for Continental Electronics; Dave Hultsman, Continental's SouthEast sales manager, is overseeing the project for the manufacturer.

Separately, Continental said it deliv-



WGBH in Boston added ATC active three-way SCM100ASL mid-field monitors for a new live performance and mastering suite.

**APT** said the **Metropolitan Opera** in New York is using a WorldCast Eclipse codec. Matt Galek is broadcast engineer for the opera. The WorldCast Eclipse will be used as the codec for the opera's primary T1, interfaced through an Adtran TSU with an integrated and automated ISDN feed to its North American stations, distributed via NPR.

"We will be running the codec at 576 kbps in the Enhanced apt-X mode for the primary feed," Galek said. ...

**Audemat-Aztec** last fall sold its 500th monitoring unit for HD Radio. Mark Williames, director of engineering for **Moody Broadcasting Network**, acquired a Goldeneagle HD unit for **WMBI** Chicago's Christian Radio. ... Separately, Audemat-Aztec won a \$100,000+ contract with **Washington State University** for 12 Goldeneagle HD monitors with touchscreen and spectrum analyzer option, through **RF Specialties of Washington**. ...

**Dalet Digital Media Systems** said the largest German radio/TV broadcaster chose Dalet Enterprise Edition solution to produce on-demand video programs for distribution via online news services.

**WDR** is deploying the system at its headquarters in Cologne. It is used by the new "Portal Redaktion" department, which is responsible for the recording and interactive distribution of WDR programs. ...

**Continental Electronics** said it

ered two 816HD Analog+HD FM transmitters to Clear Channel stations **WBUL** and **WLKT** in Lexington, Ky., where the station engineer is Girard Westerberg; another 816HD to Your Public Radio Corporation's **WYPR(FM)** in Baltimore, station engineer Fred Rathert; a transmitter to Entercom New Orleans' **WWL(FM)**, engineer Joe Pollet; and another to Regent Broadcasting's **KSII(FM)** in El Paso, engineer Dave Remund. ...

**Audion Labs** said **Clear Channel** bought 10 VoxPro software and control-panel packages as part of its five-station consolidation project in New York and New Jersey.

**WHTZ**, **WAXQ**, **WWPR**, **WLTW** and **WKTU** will be housed in one building at 32 Avenue of the Americas in Manhattan. ...

**Netia** said Michigan station **WNEM(AM)**, owned by Meredith Corp. and serving the Bridgeport, Saginaw and Bay City areas, is using its Radio-Assist family of digital audio software products and **WideOrbit's** **WO Traffic** for Radio software.

The integration streamlines the sharing of traffic information and simplifies planning and placement of ads within daily playlists, the companies said.

*Buyers and sellers, tell us about your recent equipment purchases and sales. Photos are encouraged. Write to [radioworld@imaspub.com](mailto:radioworld@imaspub.com).*

## Scratch and Hear!

### The Heil PR 40



Oh wait, we can't do that, but you can listen to all the Heil microphones online. Also, view a list of all Heil Sound dealers.



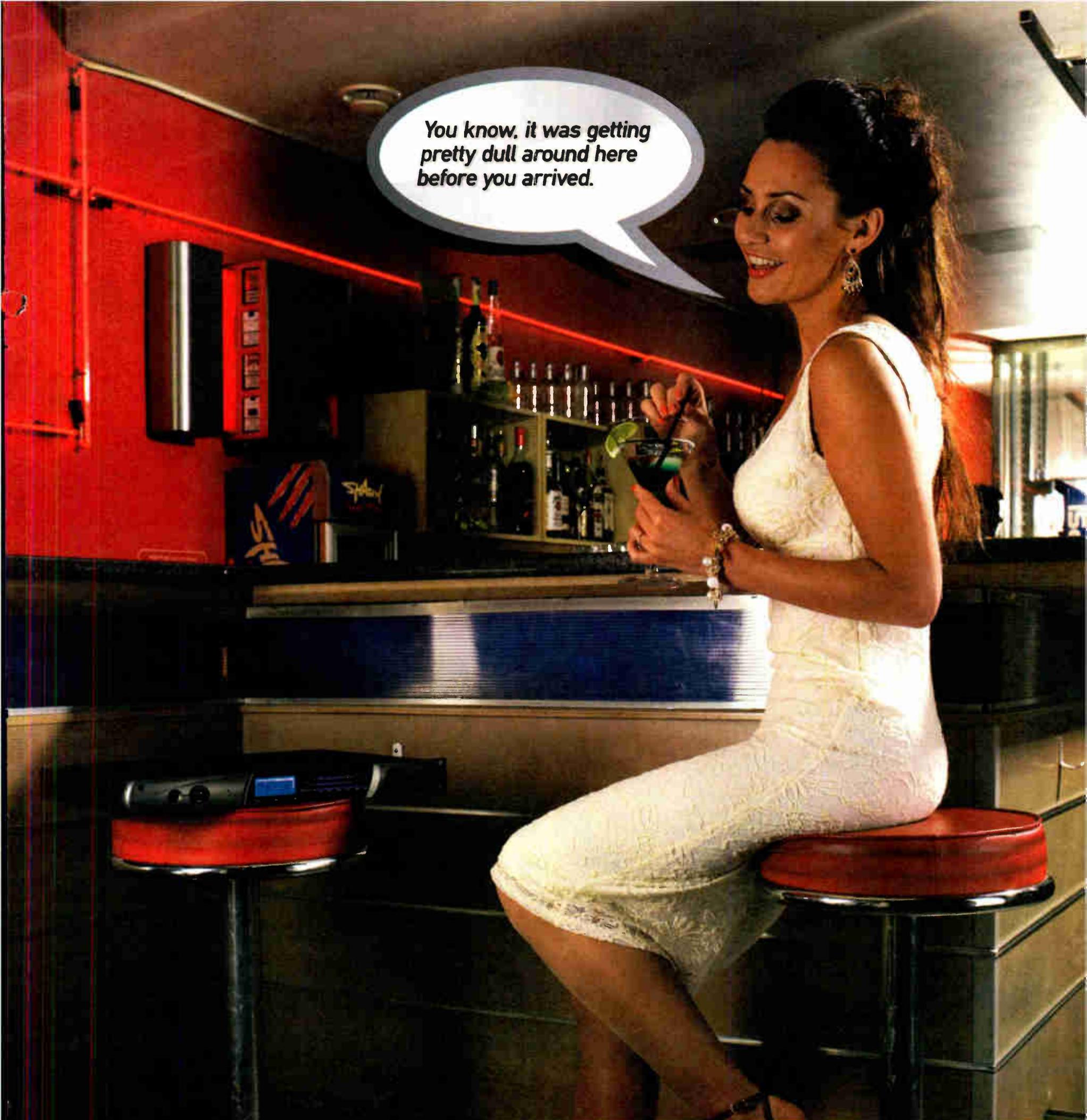
[www.heilsound.com](http://www.heilsound.com)

"The PR40 is THE BEST mic I have ever used." -Art Bell

"I suddenly realized that my old studio mics had just become overpriced hammers. These Heil mics blew my mind, but left my budget in great shape." -Dave Hines, US 97, Clear Channel

"I just put in some of the Heil PR 40's replacing Neumann's and I have to tell you man, that's the best sounding microphone I have ever heard for broadcast. Sure made a believer out of me." - Jay Rose KVEG, Las Vegas

"Nobody ever said anything nice about my voice until I started using this (PR 40)." -Leo Laporte



You know, it was getting pretty dull around here before you arrived.

**OMNIA ONE: Small Box. Big Attitude.**

**Omnia**  
A Telos Company

[OmniaAudio.com](http://OmniaAudio.com)

Omnia, ONE are registered trademarks of T.L.S. Corp. ©2016. All Rights Reserved.

World Radio History

# KKGN 'Green 960' Seeks Greener Pastures

*Clear Channel Station Adopts Makeover And Lines Up With Environmental Trends*

by Tom Vernon

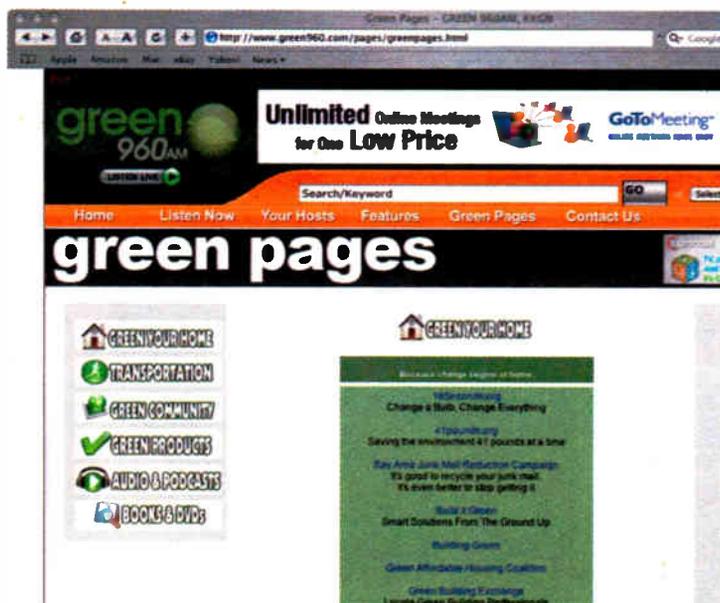
As energy shortages, deforestation and global climate change make the headlines on a daily basis, some broadcasters are responding by "going green."

For certain stations it is a programming initiative; for others it entails using energy-saving technologies in building construction and power consumption. Some do a bit of both.

This is the first of several articles in which RW will showcase how radio is responding to the need to create a sustainable environment.

## Radio seed

In San Francisco, Clear



The station Web site includes podcasts of CNN's series 'Planet in Peril.'

Officials termed early response from advertisers and listeners as "very enthusiastic" but said in the fall it would take about six months to assess the full impact.

## Beyond programming

In tandem with the format change, the station's Web site is being reinvented with features such as "the green police," where listeners can inform the station of environmentally-unsound practices that the news department can investigate.

The site will also include podcasts of popular programs, allowing listeners to hear them at their convenience.

Green programming, advocates say, is part of a larger movement in talk radio to bring a more pro-



logo for their own green messaging, while also incorporating sponsors.

The business plan includes procurement standards.

"We now purchase 35 percent recycled paper instead of 10 percent," said Fishman. Outside print jobs are being printed on recycled paper with soy inks. Office supplies are being purchased from a local green business.



Channel's KKGX "Green 960" has taken the plunge with a complete format makeover, effective last August.

Formerly KQKE "The Quake," the progressive talker now incorporates messaging about sustainability issues into the existing format. Earlier the station had been an Air America affiliate.

Former Program Director Bob Agnew told RW in the fall, "Progressives started looking elsewhere, and we were seeking a niche that works. The green movement seems to be a perfect fit, especially since we're in the most environmentally-conscious market in the country."

Agnew recently exited the station; John Scott is now director of AM operations for KKGX and sister station KNEW.

Green 960's lineup includes syndicated talkers Stephanie Miller and Bill Press plus local talent. The lineup will also feature a daily one-hour show devoted to sustainability issues, produced in-house with programming controlling editorial content. That was set for launch in January.

Station officials say there is still not enough green content to program 24/7, so material is sprinkled throughout the day.

New PD John Scott says the goal is to phase out many of the traditional "stopsets" in favor of news and advertori-

al content that seamlessly go from break to break in syndicated hours, and give the station a public radio vibe during live local programming.

One of the programming innovations at Green 960 are what Scott calls "Micro Shows," three-minute vignettes that air several times a day; these pieces profile businesses, experts and community leaders contributing to the environmental movement in the Bay Area.

"This can also be a tactic to sway potential brokered shows away from the block program," Scott said.

"We are asking selected clients to rethink how they message; to integrate them with a real show with real bodies listening, as opposed to a pure brokered block with limited audience reach."

The station did a remote at the San Francisco Auto Show with talker Big Ed Schultz in November, to showcase hybrid vehicles; a green focus meant rethinking some of the details for that event. (The staff planned to hand out bottled water until they realized the impact all that plastic would have on landfills.)

Starting in January, KKGX planned to reduce the top-of-the-hour network newscasts and begin delivering its own green newscasts. The focus is now to be on environment, a green economy, health and sustainability.



John Scott, seated, and Webmaster Chris Mason in the studio.

gressive voice to what has been seen as a predominately conservative format.

KKGX and its Clear Channel San Francisco cluster have made the green movement part of their business plan.

"This goes way beyond the programming of KKGX," said Val Fishman, green marketing specialist for the group. The company has undergone an "eco-audit" by Natural Logic and has developed a green business plan which includes quarterly and annual goals for a three- to five-year period. She said San Francisco is the pilot program for Clear Channel nationally.

"The key components for this program include energy conservation, waste management (recycling/composting), green procurement standards, employee engagement, internal and external messaging, sales application and a tracking and measurement system."

## Recycled

She said the program affects everyone in the Clear Channel San Francisco "community," including employees, consumers, advertisers, public and other media companies.

"I regularly attend sales meetings, and do training sessions for our account executives on how to integrate sustainability into their messaging."

Clear Channel San Francisco is also designing an umbrella green advertising campaign. They will utilize a green audio

Promotional teams are encouraged to seek out sustainable alternatives. Finally, the cluster has established a minimum 35 mpg standard for all new vehicles purchased.

As the stations learn about improving the environment, Fishman adds, they will inform listeners, both to educate people about the importance of becoming an environmentally responsible company, and also to solicit best practices and ideas in hopes of changing the habits and behaviors of individuals and other businesses.

While KKGX is an early adopter of green programming, they are not alone. Last February, WARW, the CBS-owned classic rocker in Washington, re-imaged itself as "Globe" radio, promoting environmentalism, "world-class rock," broadcasting from a "greenhouse" studio and using hybrid promotional vehicles.

On the Web, Radio EcoShock and Green Radio Online advocate for a sustainable environment.

But station officials said KKGX is a pioneer with green programming both in the San Francisco market and the Clear Channel organization, and they believe they are ahead of the curve on this movement.

Tom Vernon is a regular contributor to Radio World. He recently gave a presentation on green radio at the Pennsylvania Association of Broadcasters conference in Hershey, Pa.

# Feature packed.

(Kind of like our ads.)

**Go (con)figure** • The folks at MPR say they really love being able to configure and administer an entire building full of consoles and routing equipment from the comfort of their own offices. Put an Internet gateway in your Axia network and you can even log into Element (or any other part of an Axia system) remotely from home, where there's plenty of Cheetos and Pepsi Great for handling those 6 P.M. Sunday "help me!" phone calls from the new weekend jock.

**Perfect timing** • You can't have too much time. That's why Element's control display contains **four different chronometers**: a digital time-of-day readout that you can slave to an NTP (Network Time Protocol) server, an elapsed-time event timer, an adjustable count-down timer... and there's also that big, honkin' analog clock in the center of the screen (Big Ben chimes not included).

**Black velvet** • Some things just feel right. Like our premium, silky-smooth conductive plastic faders and aircraft quality switches. We build Element consoles with the most durable, reliable components in the industry — then we add special touches, like custom-molded plastic bezels that protect on/off switches from accidental activation and impact. Because we know how rough jocks can be on equipment. And nothing's more embarrassing than a sudden case of *broadcastus interruptus*.

**Swap meet** • Element modules hot-swap easily. In fact, the **entire console** hot-swaps — unplug it and audio keeps going; an external Studio Engine does all the mixing.

**How many?** • How many engineers does it take to change these light bulbs? None... they're LEDs.

**Talk to me** • Need some one-on-one time with your talent? Talk to studio guests, remote talent, phone callers — **talk back to anyone** just by pushing a button.

**The Busy Box for jocks** • Element comes standard with a lot of cool production-room goodies you'd pay extra for with other consoles, like per-fader EQ, aux sends and returns and custom voice processing by Omnia™, enabling you to quickly build and capture compression, noise gating and de-essing combinations for **each and every jock** that load automatically when they recall their personal Show Profiles. Context-sensitive SoftKnobs let production gurus easily tweak these settings, while simultaneously satisfying their tactile fixations. (Don't worry: for on-air use, you can turn off access to all that EQ stuff.)

**Screen play** • Use any display screen you choose, to suit your space and décor. Get a space-saving 12" LCD, or go for a big 21" monster. (This is Dave Ramsey's favorite Element feature, by the way. Anyone want to bet he bought his monitors on sale?)

**Lovely Rita** • LED program meters? How 1990's. SVGA display has lots of room for timers, meters, annunciators and more — enough to show meters for all four main buses at once. Reboot to 5.1 surround mode and the light show is even cooler, with surround audio and associated stereo mixes all going at once.

**Memory enhancer** • We know how forgetful jocks can be. That's why Element remembers their favorite settings for them. Element's Show Profiles are like a "snapshot" that saves sources, voice processing settings, monitor assignments and more for **instant recall**. Profiles are easy to make, too: just have talent set up the board the way they like it, then capture their preferences with a single click for later use. (Hey, make *them* do some work for a change.)

## Split decision

No, you're not seeing double: Element gives you the choice of single-frame or split-frame configurations of **up to 40 faders**. Perfect for complicated talk or morning shows where the producer wants his own mini-mixer, or to give talent space for copy, newspapers and such. Solomon would be proud.

**Stage hook** • This button activates the emergency ejector seat. OK, not really. It's the Record Mode key; when you press it, Element is instantly ready to record off-air phone bits, interviews with guest callers, or remote talent drop-ins. One button press starts your record device, configures an off-air mix-minus and sends a split feed (host on one side, guest on the other) to the record bus. Like nearly everything about Element, Record Mode is **completely configurable** — its behavior can even be customized for individual jocks. Sweeet.

**Missing features** • Did we forget something? Program these **custom button panels** with any macro you want, from recorder start/stop to one-touch activation of complex routing and scene changes using PathfinderPC™ software. You could probably even program one to start the coffee machine (black, no sugar, thanks).

**Mix-plus** • If constructing a complicated mix-minus on-the-fly brings a big grin to your face, you're excused. But if you're like us, you'll love the fact that Element does mix-minus **automagically**. Forget using all your buses for a four-person call-in, or scrambling to set up last-minute interviews. When you put remote codecs or phone calls on-air, Element figures out who should hear what and gives it to 'em — as many custom mix-minuses as you have faders.

**Great Phones** • With Element, jocks never have to take their eyes or hands off the board to use the phones. Element works with any phone system, but really clicks with the Telos Series 2101, TWOx12, and new NX-12 that connects four hybrids plus control with a **single Ethernet cable**. StatusSymbols™ (cool little information icons) tell talent at a glance whether a line is in use, busy, pre-screened, locked on-air, etc. Even dial out with the built-in keypad.



[AxiaAudio.com](http://AxiaAudio.com)

Shown: 16-position split-frame Element, nicely equipped, \$12,558.00 US MSRP. Not shown but available: 4-, 8-, 12-, 16-, 24- and 28-position Element. Dual exhaust and whitewalls optional at extra cost.  
© 2006-2007 TLS Corp. Axia, Element, PathfinderPC, Status Symbols, Omnia TM TLS Corp., all other TM's property of their respective owners.

## SUPPLY SIDE

## JDAS Is a 'Specialized Industrial Computer'

*Supply Side is a series of occasional interviews with suppliers in the news. Eric Wiler is the senior director of technology for Jones Radio Networks, which recently launched the Jones Digital Audio Server, a delivery technology platform for distribution of radio content manufactured by Wegener. The company conducted a replacement program of its older Starguide and Wegener networks.*

### What are your responsibilities?

My position is to manage the technology of Jones' radio products. This includes the origination and transmission of programming as well as management

of our IT infrastructure and software development.

### What is the relationship between Jones and Wegener?

Wegener is the primary provider for our content delivery infrastructure. Jones has a longstanding relationship with Wegener, as this is our third delivery system utilizing their receivers. Wegener's longevity in radio has made them an excellent technology partner, as their 25-plus years in radio demonstrates. When we evaluated our options, they provided the best technology, support, stability and innovation for our needs.

### What is the Jones Digital Audio Server?

The JDAS is a content delivery audio server. From a technical perspective, it's a specialized industrial computer with

custom software and hardware. It is capable of not only satellite delivery but also of Internet delivery for non-time sensitive material. The system allows for national, regional or even local content and advertising. We can provide digital audio, analog audio, relays, file storage even PAD data from a single platform.



Jones Digital Audio Server

## Able to leap tall buildings?



No distance or line-of-sight restriction makes **Starlink SL9003T1** the ideal choice for STL/TSL and intercity links.

**Starlink T1's** bidirectional high capacity significantly reduces communications costs compared to discrete audio, telephone and data circuits.

And **Starlink's** uncompressed digital audio will stand out above your competition.

## STL over any distance or terrain... ...Moseley Starlink T1



- HD Radio™ and Multicasting
- Transmitter remote control
- RBDS data
- Telephone extension
- IP-based equipment control
- Internet and e-mail connection

Call the digital STL experts today.

Dave Chancey 805.968.9621

Bill Gould 978.373.6303

[www.moseleysb.com](http://www.moseleysb.com)

# Moseley

### Why are you replacing older StarGuide and Wegener networks?

We launched our original Wegener digital platform in 1996, the equipment has reached the end-of-life cycle. The Starguide platform, while not end-of-life, doesn't provide the same degree of flexibility as the JDAS platform.

### What are its features that are most useful in your application?

Our biggest gain is the ability to customize content. We can provide a level of programming to our affiliates that was not possible before. We have the ability to program to a station's individual needs for content, including music, talk and

**Jones is a leader in the third generation of content delivery, and stations will continue to see benefits to the system for years to come.**

— Eric Wiler

even the option to move shows to a later time — all at the receiver level.

Further, as the advertising marketplace is becoming more complex, we can now fill the need to deliver commercial advertising matched to the local affiliates. Our advertisers no longer need to play spots for snow tires in Hawaii or suntan lotion in Alaska.

The receiver also allows us to capture and replay material based on the station's specific needs. This can be programmed for the affiliate by our Network Operations Center or by the affiliate station using a browser-based interface on the receiver directly.

**Does the server support Internet back channels from the receiver to the uplink for authentication, updating and remote management? Receiver management at the receive station level via Ethernet connection? E-mail alarms and event notification from**

**the receiver?**

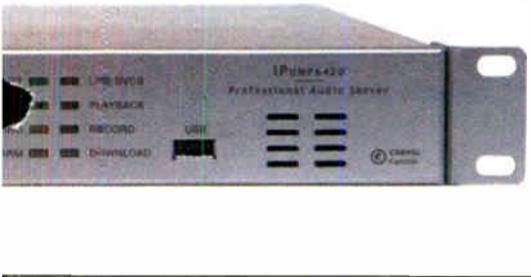
Our receiver requires a dedicated Internet connection, or at a minimum a POTS phone line, to communicate with the network. Unlike older systems, the ability to verify the operation of the local receivers is a key benefit. We're able to track a local dish issue and even contact

I always feel backup equipment is a key component of reliability. This doesn't necessarily focus only on the satellite receiver but the entire broadcast chain. A surge suppressor on the satellite coaxial cable and an uninterruptible power supply are just as critical to the reliability of a station.

**What else should radio engineers and affiliates know?**

The JDAS represents a new era for stations. As the receivers are not just hardware but also a software platform, we plan to add many features over the next several months.

Jones is a leader in the third generation of content delivery, and stations will continue to see benefits to the system for years to come.



the station to inform them of a local problem in need of attention. Our primary control is via our satellite carrier with status returned to the network via the return path.

**Why does the radio industry seem to go through reworkings of the satellite delivery infrastructure on such a predictable basis?**

I don't think we will ever see another system that provides the longevity of the original 1983 Scientific-Atlanta DATS system. We no longer have to only deliver simple audio multicasts but also now compete with other audio entertainment mediums.

As options to the consumer become available, it is key for our industry to respond to the listener. We have a similar situation with advertising dollars; the need to deliver the state-of-the-art in not only delivery but tracking are examples of how technology has moved forward in the last few years.

**Satellite distribution has used MPEG I Layer II or Layer III for a long time. Does the JDAS offer new audio algorithms for improved quality at the receiver with higher efficiency?**

We currently utilize MPEG I Layer II, primarily due to the robust nature of the algorithm to further transcoding by the affiliate. As the JDAS decoding is software-based, we always have the option of pursuing other options.

**Will stations need better LNBS or different-sized dishes to work best with the new receivers?**

Our platform is designed to operate correctly with the standard recommended downlink package, 3.8-meter (12 foot) professional-grade dish and PLL LNB. These are the same recommendations which have been stressed to stations since the mid-1980s when 2-degree spacing became a concern.

**Are you getting into verification of spots and programs?**

The JDAS has the ability to monitor the station's audio. This is a key benefit as station resources become strained with paperwork. The receiver can directly report to the network and save a station hours of work.

**Do you recommend acquiring "hot-standby" backup receivers for the new platform?**

The JDAS is a professional device and has a number of features to enhance reliability.

**WE GIVE YOU DEUTSCH**

**Name:** Ken Deutsch (formerly known as "Ken R.")

**Writes About:** The people who make radio exciting

**Experience:** Former radio jock, TV director and jingle producer

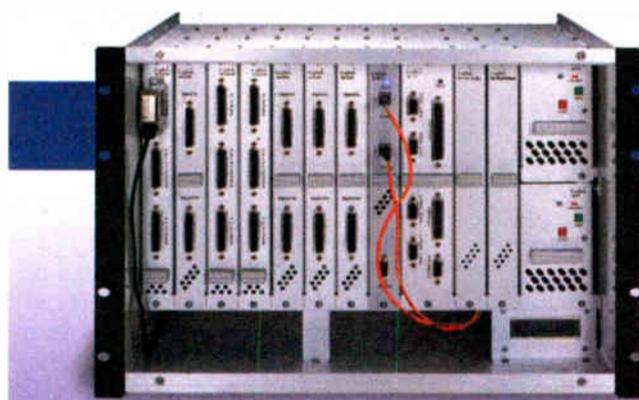
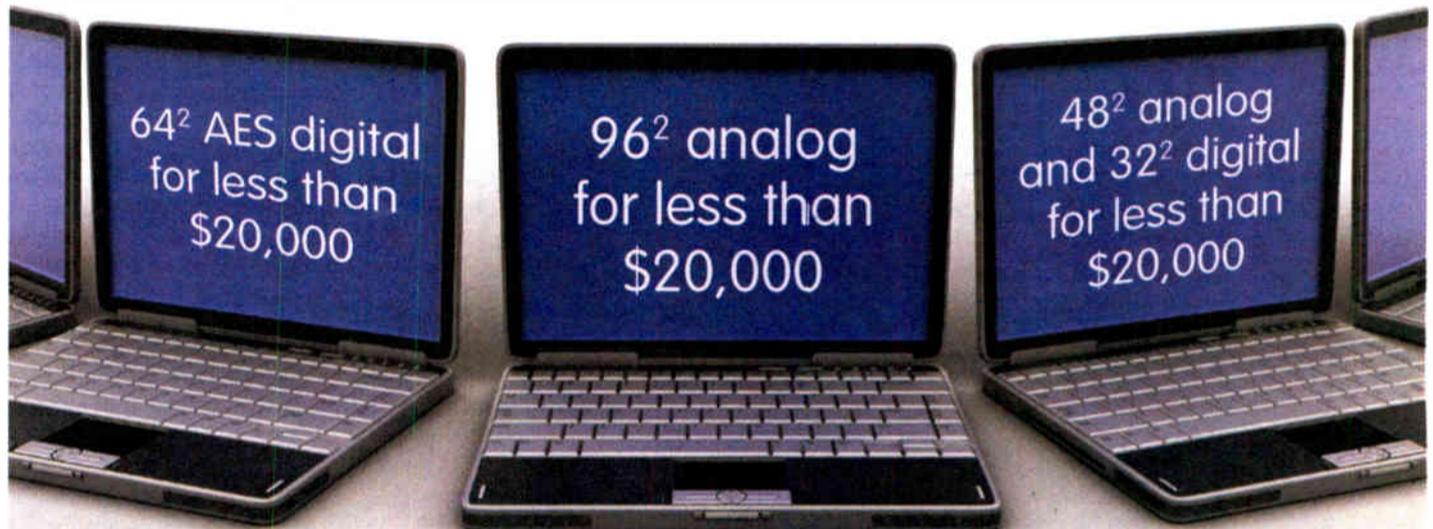
**Learning Experiences:** Returned to college to finish a degree in communication at age 56

**Quote:** "Savor the past but live in the present." This gets more important as we age.

Radio World's pages are home to the finest writers and columnists in the industry. Like Ken Deutsch. Just one more reason we're the newspaper for radio managers and engineers.

**Radio World**

96<sup>2</sup> < \$20K



**The new math of audio routing**

With Logitek, you don't have to spend a fortune to move audio signals around your facility. Our Audio Engine router does it all—X-Y routing, mixing, gain control, EQ, compression, limiting—for a great price.

Learn more about the Audio Engine and Logitek's line of console control surfaces at [www.logitekaudio.com](http://www.logitekaudio.com).



Logitek Electronic Systems, Inc. 5622 Edgemoor • Houston, TX 77081  
713.664.4470 1.800.231.5870  
info@logitekaudio.com www.logitekaudio.com

© 2006 Logitek Electronic Systems, Inc.

# Turning Some Tight Corners for IBOC

*A Number of Critical Obstacles Lie in Digital Radio's Path Toward Ultimate Success*



The recently concluded 2008 CES convention showed that IBOC continues to make small but steady gains in the consumer marketplace, at least in terms of receiver products offered. Nevertheless, a number of important issues will soon need to be addressed and resolved in a positive way if IBOC is to continue on an upward path.

Some of these are already well known but may reach a critical stage soon, while others have yet to emerge broadly. We consider all identified possibilities here.

## Anti AM IBOC

Sentiment against AM IBOC is gradually morphing from a fringe movement to a serious threat, as official complaints are being filed at the FCC, and major AM stations are pulling the plug on their IBOC excitors. It will be interesting to see what response comes from the FCC in the coming months, if any.

Meanwhile, the increasingly vocal anti-IBOC movement seems to still be contained to smaller, independent stations, but the real impact will come from what broadcasters do rather than say. If any other major broadcast groups drop AM IBOC, the format will be in serious trouble.

On the other hand, some have countered that AM broadcasting is already largely a fossil on today's media landscape, so how much worse can AM IBOC make it, and could it ultimately bring a net benefit to the senior radio band if enough listeners purchase new receivers?

Along the same lines, the impact of AM IBOC's woes on the fate of HD Radio overall is also unknown. Even if the AM IBOC format were completely abandoned in the future, it could have little negative effect on FM IBOC's success. Existing IBOC radios would simply remain analog-only AM receivers, and still provide HD Radio features for FM stations. AM stations would not benefit, but in the opinion of some today, having everyone turn off their AM IBOC signals would effectively be an improvement over the status quo.

Meanwhile, another more palatable future improvement (such as DRM) might come along for AM stations. There's plenty to ponder in the near future here.

## Moving too slowly?

The relative lack of strong consumer interest in HD Radio is well documented, and the longer this malaise continues, the harder it will be to reverse. So far, at least, the reliance on multicasting to solve this problem has not had its desired effect, and there does not seem to be any other white knight on the horizon. Thus it remains a vexing issue for the industry.

The concurrent development of other media devices and services only deepens the gloom here. Of particular interest is the nascent trend toward streaming media reception on broadband wireless devices, both handheld and mobile. If this practice moves from its present enthusiast state to the mainstream, IBOC may be lost in the noise.

New media devices are implementing technologies that reflect the trend of "mobile convergence." In this arena, numerous "radios" are contained in a single device, such as WiFi, Bluetooth, GSM or CDMA, WiMAX or EV-DO (or other competing wireless broadband technologies) and the like.

Getting a broadcast radio receiver — particularly of the IBOC form — included in the mix is a difficult task, especially for handheld devices, given their physical-space, antenna, battery-life and cost constraints. In fact, when these new device makers talk about the "radio(s)" in their designs, they are hardly ever referring to an AM/FM receiver.

This is not to say that radio will suffer tremendous losses as a result of not having an IBOC receiver on board these popular new products, but only that its digital transition strategy may be in peril. The radio industry may need to shift its hopes for new platforms from IBOC and Internet radio to Internet radio alone (in both its wired and wireless modes).

## What lurks

If these issues weren't enough, there are others that may arise in the near future.

The first is the now growing concern that many current HD Radio receivers exhibit sensitivities that reduce most stations' digital coverage to a substantially smaller area than their analog services. This is particularly evident with indoor reception in tabletop models, which are the highest-selling form factors to date. In some cases, there are anecdotal reports that even the *analog* sensitivity of receivers is lower than their analog-only counterparts.

This implies that external antennas or placement near windows is required to successfully receive IBOC signals (of particular importance to multicast services, of course), making these terrestrial receivers not much better than satellite radios of similar form factor in terms of service availability.

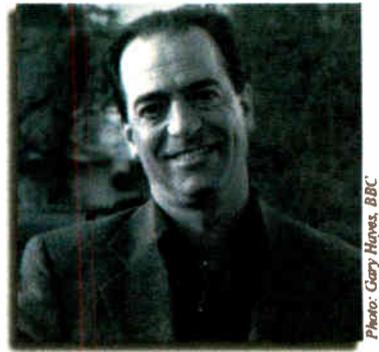
Moreover, it provides a poor user experience to consumers who actually go to the trouble of purchasing IBOC tabletop receivers and find that it doesn't give them any more (or in some cases, less) service than their old analog radios. While this is likely to be improved upon by subsequent receiver designs, or even by contemplated changes in digital-carrier power levels, the old adage, "You never get a second chance to make a first impression," certainly applies here. Future improvements may be too little, too late.

## Digital disincentive

Finally, a very different issue may emerge soon, much to the consternation of terrestrial radio broadcasters: You've likely heard about the music industry's push to have new performance royalties for music recordings applied to terrestrial radio, just as they do for Internet and satellite radio. The primary (and statutory) reason that terrestrial radio has remained immune to these royalties is because it has remained a strictly analog service, while the other services have been digital since their inception.

Now that terrestrial radio also has a digital component, its exemption from the digital performance royalties

## The Big Picture



by Skip Pizzi

becomes less defensible. Proponents of the added royalties surely will cite this new form of terrestrial radio broadcast as falling within the new "digital jurisdiction."

One possible outcome is that the new digital royalties will be assessed on a pro-rated basis that takes into account the current and projected penetration of IBOC receivers in the marketplace. Thus the royalties would be assessed on a percentage of main-channel services, and 100 percent of multicast services, with

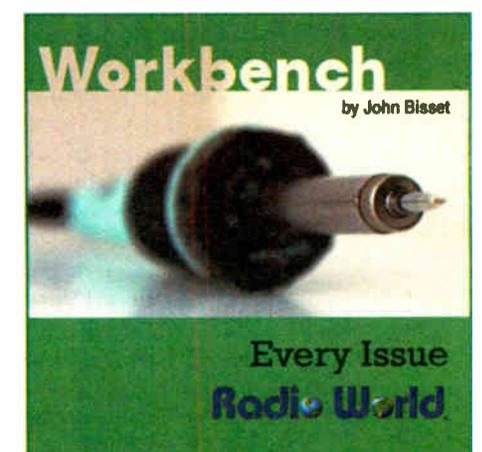
**The old adage,  
You never get a  
second chance  
to make a first  
impression,  
certainly applies  
here.**

increasing rates over time (likely assessed over a five-year terms, with reassessments reviewed as each period comes to a close, just as in the Internet and satellite radio venues). The better IBOC fared, the more new royalties broadcasters would have to pay.

This would put terrestrial broadcasters in a difficult position: Increasing success of their IBOC services would likely result in a penalty to their bottom line through higher digital royalty costs. How broadcasters would resolve this conundrum is purely speculative, of course, but you can guess how it might play out, and which side of the operation would likely prevail in the internal struggle that this scenario engenders.

We are still in the midst of the U.S. radio industry's digital transition, but it's clear that there are still plenty of bends in the road between here and the finish line.

*Skip Pizzi is contributing editor of Radio World.*



# ONE

## Harris — The ONE choice for end-to-end radio solutions.



### ZX™ Series

FM tri-mode transmitters featuring multiple PA modules and power supplies for maximum redundancy. When used with the FlexStar™ HDx Exciter, the ZX™ Series can operate in either digital only or FM/FM-HD. ZX transmitters are available from 500 W to 3500 W.

### FlexStar™

HDx Exciter brings HD Radio™ and analog audio to a new level. Featuring real-time adaptive correction for increased power and efficiency and the latest iBiquity platform in HD Radio™ —Exgine—HDx Exciter unlocks new revenue streams.

### Destiny™ 3DX-50

Highly efficient, medium-wave transmitter, and the latest in the DX™ family of world-class digital AM transmitters. Fully compatible with HD Radio and DRM. Harris AM transmitters are available from 1 kW to 2 MW.

### PR&E NetWave™

Modular, network-enabled, high-performance radio broadcast console packed with features that are perfect for small to medium studios. Share all your studio resources throughout the facility with the Harris™ VistaMax™ audio management system.

HD Radio is a trademark of iBiquity Digital Corporation.

From AM/FM and HD Radio™ and DRM transmission to program audio transport to consoles to broadcast studios — Harris offers you the best products and systems in the business backed by outstanding customer service.

For more information visit [www.broadcast.harris.com/radio](http://www.broadcast.harris.com/radio), call +1 800 622 0022 or [broadcastsales@harris.com](mailto:broadcastsales@harris.com).

Harris is the ONE company delivering interoperable workflow solutions across the entire broadcast delivery chain with a single, integrated approach.

Business Operations • Media Management • Newsrooms & Editing • Core Processing • Channel Release • Media Transport • **TRANSMISSION**



**assuredcommunications®**

Broadcast Communications • Defense Communications Systems • Government Communication Systems • Harris Stratex Networks

[www.harris.com](http://www.harris.com)

World Radio History

## MILE STONES

# Radio Has a Special Place in the Car

*Cruising and Playing the Radio ...  
With No Particular Place to Go*

by Charles S. Fitch

In a moment of insanity, your brother has loaned you his '61 Impala 409 pearlescent red convertible.

It's a sunny Maryland Sunday in the summer of '64 and you're tooling back from the drag races. The top is down, WCAO is up and rocking on the radio, and the twin 6-by-9 oval speakers in the dash and rear console are just keeping up with the wind noise.

Capture the magic moment. Your girlfriend *du jour* is eternally young in your mind's eye, and Chuck Berry's exhortations will always be in your heart.

## A fruitful marriage

Playing the radio while you moto-vate was a wonderful thing, allowing you to be internal and external at the same time.

You could make the music a personal experience, even singing along in the privacy of your mobile suite or be carried afar by the drama programs or news reports from around the globe. Amazing sound could come from those speakers. You were never alone.

Radio is still that way.

The marriage of automobile and radio seems so logical, one can only wonder why it took the intervention of entrepreneurs to make it happen. Happen it did; and nearly 80 years later, radio and the auto remain joined at the hip.

The seminal year was 1929. After failing twice in the storage battery business, Paul Galvin was encouraged to try to put a workable car radio into volume production, an idea that had pretty much been ignored by auto manufacturers.

In retrospect, the problem required a system solution that eventually involved three steps: a suitable, sensitive receiver; getting that receiver to work on the erratic electrical supply provided by the car; and overcoming ignition and tire static noise.

In 1901 Marconi had put a radio into a steam-powered car (at least this eliminated ignition noise!), but since his radio took up most of the car, the idea didn't catch on.

## After-market

Galvin needed a solution to match his vision.

He turned to an innovator who had imagination and what would now be described as "outside the box thinking." His perspiration and perseverance didn't hurt either.

That fellow was William Lear, whose name lives on in a jet, one of many products spawned from his 120 or so patents. Lear solved much of the car radio challenge and sold Galvin the patent (U.S. patent 1,944,139).

However, even with a workable product, the car radio was far from an overnight success.

This "after-market" automobile item was first sold to accessory marketers, who would then sell it to customizers, who would finally install the radio in the car.

Over the next few years Galvin took over the direct marketing to installers as sales grew. He knew that his product needed differentiation in the marketplace as competitors entered the field.

A special trademark came to him while shaving: "Motorola."

He hoped this brand name could capture the imagination of customers, bringing to mind images of motoring along with the joy of a radio.

That joy was spreading; by 1934, total industry sales of car radios topped \$1.35 million. During the 1930s the car radio business dominated the Galvin output so much he eventually renamed his company after the trademark.

Popular cars at the time cost about \$500; a radio to be installed in that vehicle, such as the Motorola model 5T71,

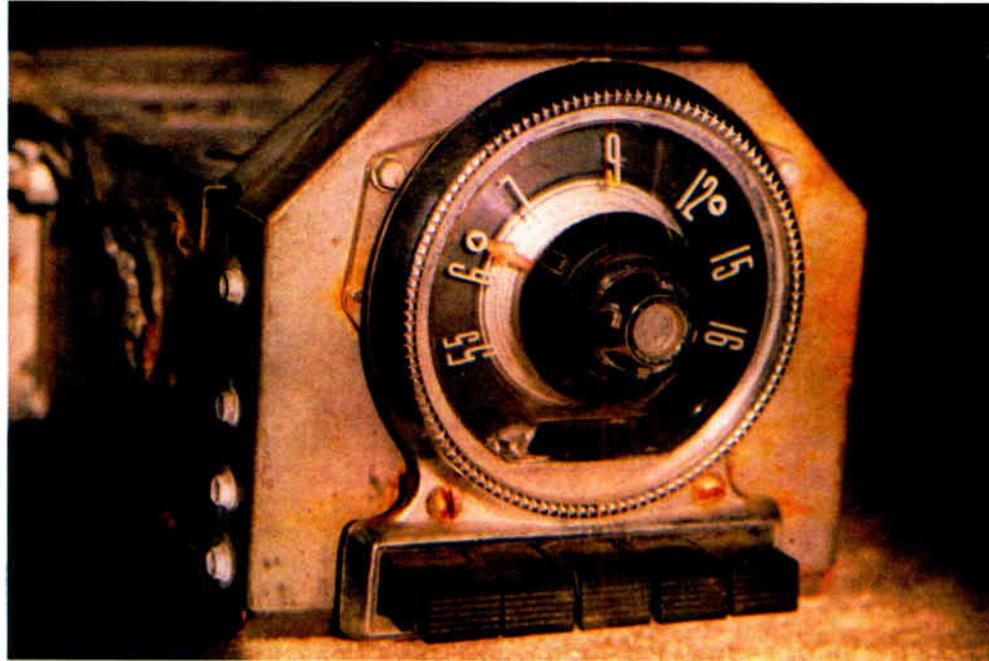
cost about \$130. So after custom installation, a radio might well cost half the value of the auto.

## Tick-tock

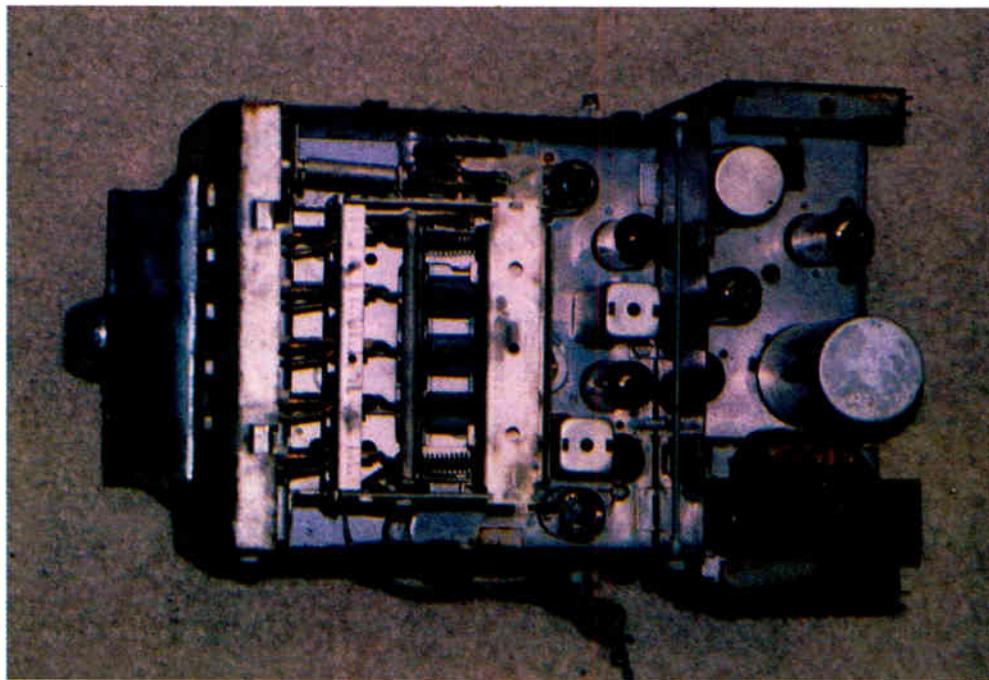
Early car radios from the majority of manufacturers resembled regular tube

to the antenna. An automatic gain control system, sometimes both on the RF/IF stages as well as in the audio sections, were added by engineers to reduce variations in the audio output of the speaker.

Inside the car, the electrical system, generator, distributor, spark plugs and so forth were all big sources of interference and noise. Special high-resistance spark-plug wires, bypass capacitors and other devices were developed and applied to



Modern art deco meets the jet age. This 1955 Ford car radio had a round dial and concentric tuning control. Here the dial indicator points to the Conelrad 640 icon. The horizontal thumbwheel knob is the tone control.



The guts of the radio, seen from below with cover removed. A Rube Goldberg arrangement of mechanical components allowed pushbutton station selection. Subminiature tubes were small and light enough to be held in place by the friction of the pins despite hostile road vibrations.

sets with progressive refinements. Most used the car battery to light the filaments and a vibrator B+ supply.

The vibrator was a small pendulum-type affair in which a paddle arm, hinged at one end, would oscillate back and forth, sort of like a high-speed metronome, reversing the battery voltage into a step-up transformer primary.

Thus the designers had created essentially a ragged square wave. Eliminating this "vibrator noise" both electrically and acoustically, a new phenomenon, begat its own series of problems and unique solutions.

As designs evolved, a *de rigueur* first RF stage appeared to increase sensitivity to reduce fading and make a better match

attenuate their noise competition with the radio signals.

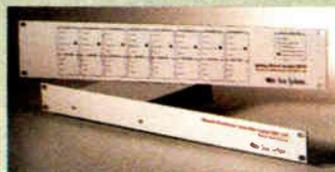
Tires were a problem as well, acting like four Van de Graaff static generators. Special powders were developed to be injected in the tires, and static drain straps were installed to siphon off any static charges and bring the auto itself close to ground potential.

Vibration in autos was and is a large engineering challenge. Tubes in the 1930s were usually built in the "octal" push-in format. These actually could be driven from their sockets by vibration, so radio manufacturers devised various cushioning restraint systems until the introduction of a full series of tubes in the "loctal" format, where the metal center indexing pin

## Control Solutions

### Model RFC-1/B Remote Facilites Controller

- control transmitter from any telephone
- 8-64 channels of telemetry and control
- programmable control by date and time
- optional printer and modem adapters
- programmable telemetry alarms
- integrated rack panel



## innovative solutions

### Model RAK-1 Intelligent Rack Adapter

- parallel printer interface
- internal modem for data transfer
- front panel status indicators
- battery backed power supply
- rack mountable chassis
- accessory package for RFC-1/B



Sine Systems, Inc.

615.228.3500

more information: [www.sinesystems.com](http://www.sinesystems.com)

had a "catch ridge" that would hold the tube securely in its socket.

Miniature tubes had less mass and could be restrained by their own pin friction; these found their way into car radios in the late 1940s.

A new series of "12 Volt" tubes appeared in the mid-1950s along with the first transistors used in the audio output, together eliminating the need for B+ and with it, the vibrator.

All-transistor radios followed shortly.

#### Push it

Even before text messaging and cell-phone use in the car, tuning the radio was deemed a hazardous distraction. Pushbutton pre-selection of stations was introduced by Motorola in 1937 to make tuning a no-brainer, one-finger action.

The setup tuning of these pushbuttons can be divided into two schemes.

The earliest was a series of separate LC networks, one for each station. My Chrysler car radio — the same model that Bette Davis tunes in her coupe in the 1939 film "Dark Victory," and which I had modified to run on 120 Volts AC — had little finger wheels for tuning behind each button, accessible when you pulled the button cap off.

Later a mechanical indexing system was devised for pushbutton operation that positioned both the tuning dial and the main tuning element (cap or inductor) that set the frequency. Ordinarily a station was tuned in, then the button allocated to that station was pulled out and then pushed back in, fully memorizing the mechanical setting.

Broadcasters picked up on pushbuttons and station loyalty; they started urging listeners to make their station "the number one button on their car radio!"

The first appearance of the "signal seeking" radio was in the early 1950s, with two unique wrinkles.

Most of these radios had a switch marked "Town and Country," to set whether you wanted the radio to find only local stations or any receivable signal.

A second innovation was a switch under the carpet for the left foot that would be depressed by the driver momentarily (we don't want to add to the distractions). A little motor would start tuning the radio up the dial. The AGC circuit in the radio would tell the motor to stop on the strongest or any station depending on your town/country choice.

#### Simple joys

In the United States, GM introduced the first factory-installed, "in-the-dash" radio in 1936. From the postwar period on, most consumers bought their car radio with the car.

By the 1980s nearly all auto manufacturers provided at least a manually tuned AM radio as standard equipment. Some of these radios used ASIC LSI ICs, and an acceptable radio could be made of just a few chips. Including the radio cost the manufacturer only a few dollars more than placing a matching dash plate over an empty hole.

In the digital tuning age, many of these early features are still with us, including pushbuttons (now just accessing digital memory registers) and signal seek.

Most new radios have an interesting refinement: If in seeking they find no local stations, they automatically step down to accept a lower signal strength, a useful feature in some of the remaining great outback of America.

As our time spent in automobiles



The radio had a matching clock to balance the look of the dashboard. Notice the fast/slow adjust at top. The clock ran through a DC motor powered by the car battery; a mechanical time regulator was part of the design. Many people used multiple radio time checks to 'walk in' their auto clocks' time.

increases thanks to traffic congestion and longer commutes, our time spent involved in mobile audio is going up too.

Some sound aficionados find factory-standard gear to be lacking and will spend thousands on "sound tuning" upgrades. Choices on the listening side are changing as well, thanks to satellite radio and HD2 channels, which can deliver traffic reports and information focused on commuters and provide more options and useful data to drivers than ever imagined possible.

But no matter how high-

tech, the simple joy of a pleasant audio companion in the car, a pleasure that stimulated radio sales at their introduction 80 years ago, is still there.

Research for this article came from a number of sources including the official history of Motorola (see [www.motorola.com/content.jsp](http://www.motorola.com/content.jsp), under History), the Powerhouse Museum of Australia ([www.powerhousemuseum.com](http://www.powerhousemuseum.com)) and the American National Business Hall of Fame (find Paul Galvin under [www.anbhf.org/laureates.html](http://www.anbhf.org/laureates.html)).

Buc Fitch wrote in October about the GE Phasitron FM transmitter. Past Milestone columns are archived at [radioworld.com](http://radioworld.com). E-mail the author c/o Radio World at [radioworld@imaspub.com](mailto:radioworld@imaspub.com). If a reader needs help converting a vintage car radio for use out of the car, contact the author. 🌐

What's  
Google™

doing with  
radio automation?

Google has been redeveloping SS32 and Maestro from the ground up. Our new system can be summed up in just three words...

Progressive. Flexible. Sound.

We're breaking new ground with  
automation technology.  
Don't get left behind.

800-726-8877

Visit [www.google.com/radioautomation](http://www.google.com/radioautomation) to find out more.

© Copyright 2007. All rights reserved. Google and Google logos are registered trademarks of Google Inc.

NEWS MAKER

## Marian McPartland and All That Jazz

Turning 90 This Year, Newly Minted  
National Radio Hall of Famer Keeps Playing

by Ken Deutsch

After recording more than 60 albums and after almost 30 years of hosting her own Peabody Award-winning jazz show



Photo by Melissa Grah

McPartland at the piano in 2004 during a session with jazz artist Jodie Christian at the WBGO(FM) studios.

over NPR, piano legend Marian McPartland finally was invited to join the National Radio Hall of Fame in 2007.

The punch line is that she couldn't attend the November ceremony because she was in Columbia, S.C., preparing for a live orchestral gig, "A Tribute to Rachel Carson." She also was sitting for an interview or two, one of which was for a documentary about her. And she was playing a session with a jazz group from the University of South Carolina.

"And I feel terrible about that," she said in an interview from her home. "I consider the awards ceremony in Chicago to be of great importance and I feel honored at being included." She said it was ironic she couldn't attend "after all this time."

### 24 countries

McPartland is indeed no rookie. She emigrated from her native Great Britain to Chicago with her new husband after World War II and immediately began building a reputation as a great jazz pianist.

Her reviews for Down Beat magazine, written in the late 1940s, were compiled and published in 2003 as "Marian McPartland's Jazz World." She won her first Grammy in 2004, the same year she celebrated the 25th anniversary of "Marian McPartland's Piano Jazz," NPR's longest-running cultural program.

"Piano Jazz," produced by South Carolina Educational Television and Radio, is heard in 45 states and 24 countries. She marked her 85th birthday with a double live CD, "85 Candles," which featured a world-class cast of supporting musicians and singers. The recording was made at Birdland in New York and released on the Concord label in 2005.

With all of that behind her, what does she look forward to?

"We just finished an album yesterday," she said.

"I'm excited about that because it has a lot of the tunes we used to play years ago including 'Lonely Woman,' by Ornette Coleman; my own composition 'Twilight World,' and 'In the Days of Our Love,' which was written and sung by Peggy Lee. I recorded this new album with my trio, which includes Glenn Davis on drums and Gary Mazzaroppi on bass.

"With that name, Gary sounds like he should be either a car or a cheese!"

### Heard it on the radio

Arbitron spokesperson Jessica Benbow told Radio World that out of the almost 14,000 AM and FM stations in the U.S., only 65 list their format as "jazz." To that total we could add another 71 stations that play "smooth jazz/adult contemporary." Even with those, jazz is played on only about 1 percent of radio stations.

"That's because it is too complex for an audience that likes a tune with just two chords," said McPartland. "I'm sorry jazz doesn't have a bigger audience, but I really don't care a lot because there are many people that love this music. On our show we get thousands of faxes and e-mails from listeners."

McPartland was on the scene when rock and roll began to gain in popularity in the mid-1950s and she was on the scene when rap made its first appearance 30 years later. She doesn't care too much for either.

"When rock and roll started I thought it was awful, but we just kept doing what we were doing," she said. "It did cut into our audience a bit, but some people saw there was money to be made and record companies went with it for that reason.

"It got me so mad I started my own record label (Halcyon) which was quite



Marian McPartland, seated, with Shari Hutchinson

successful. So you can thank rock and roll for making me doing my own thing in the record business."

### Improvising as she goes

Even as she approaches 90, McPartland isn't content to sit back and take it easy. She still performs in the studio and on the road, and still enjoys the feeling of working with other musicians.

"When I'm on stage I'm listening to what's going on around me," she said. "It's all improvisation. I'll always try to do something different because I hate to play the same thing over and over. I take chances, so if I play a wrong note, I try to turn it into something workable. If I play the same wrong note again, maybe the audience will think I did it on purpose. Some musicians reach a certain point and they say, 'this is me, this is how I play,'

See MCPARTLAND, page 26 ▶

**ALTRONIC RESEARCH INC.**  
Performance By Design



**OUTDOOR DUMMY LOADS**  
6600 Series

Convection-Cooled Resistor Loads  
Designed for Outdoor Applications

Available in 6kW, 12kW & 20kW Power Ratings  
Ideal for HD Applications  
No AC Power Required



**ALTRONIC RESEARCH INC.**

P.O. Box 249 Yellville, Arkansas 72687 870-449-4093 Fax: 870-449-6000  
E-mail: [altronic@mtnhome.com](mailto:altronic@mtnhome.com) Web Site: <http://www.altronic.com>



# Faster, Better, More Powerful

GSelector is the future of music scheduling. Hundreds of PDs have already migrated to GSelector because they needed a faster way to program more stations. They needed a better scheduler that leaves virtually no unscheduled positions. They needed a more powerful program that gives them the cross-station protection they must have in today's digital radio world. **Migrate with the best. [www.gselector.com](http://www.gselector.com)**

# GSelector<sup>®</sup>

music scheduling  
**reinvented<sup>™</sup>**



© Copyright 2008 RCS, Inc. All Rights Reserved. RCS, RCS Sound Software, GSelector and their logos are registered trademarks and Music Scheduling Reinvented is a trademark of RCS, Inc. GSelector's demand-based, goal-driven scheduling system is protected by US Patent 6,910,220.

World Radio History

# Sending Out E-Mail Like It's 1999

Are you interested in database marketing? Want to save \$5,000?

That's about how much you'll pay a consulting company to develop an e-mail marketing strategy for you. Simply follow the directions I am about to impart and you can save the five grand — or better yet, give your Webmaster a raise.

I subscribe to scores of radio and TV station e-letters, and as I reflect upon this past year, one sad fact emerges. It's obvious that our broadcast industries have allocated few resources to harnessing the power of databases.

Oh sure, there's plenty of talk about it. At nearly every gathering or convention the topic is discussed, but a real understanding coupled with proper execution has yet to reach the local level at the vast majority of stations.

I know that the basic information about e-mail marketing has been communicated in other articles in this very news-

paper and via panels at conventions, but I'm mystified as to why the industry still sends out e-mail like it's 1999.

## Plan it

The first item you require is a proper e-mail marketing tool, or EMT.

At the minimum this EMT should enable you to determine the following:

- 1) How many people received the e-mail you just sent,
- 2) How many of the e-mails you just sent bounced back to you,
- 3) How many people actually opened the e-mail that they received,
- 4) What time and date they opened the e-mail,
- 5) Which links they clicked (embedded in the e-mail), and
- 6) How many recipients have unsubscribed.

The EMT should also have a setting that lets you adjust the number of bounces before it auto-scrubs the recipient.

For example, if you send out three different e-mails to a specific e-mail address, and each time you send it bounces back to you, the EMT then would automatically take the recipient out of the database. In this way, you are assured of having a real list as opposed to having a list where 20 or 30 percent of your users aren't really receiving anything.

Why so important, this data you receive from an EMT?

The data will tell you whether or not you are successful. When you first start using a real EMT, you'll immediately see how many bad e-mail addresses are in your database because of your bounce-back rate. You'll see how quickly or slowly your subscribers open or don't open your e-letter, allowing you to gauge how important your e-letter is to them.

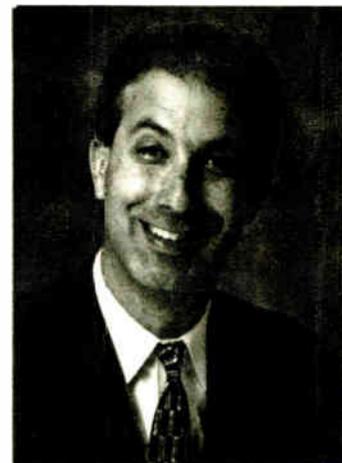
Stations that have been sending out e-letters devoid of true content will also discover that they have a low open rate. This tells you that you have valid e-mail addresses, but that few people are bothering to open your e-letter because — well, it sucks.

## Use it

Now that you understand why you need an EMT, the next step is to actually use it.

Yes, I know of some big stations that

## Promo Power



by Mark Lapidus

have EMTs but nobody invests the time to analyze the statistics after each send. There's a wealth of information to be garnered in just a few minutes.

To put you slightly ahead of the learning curve when it comes to sending people something they want to receive, I can tell you a few things you will learn.

Ready for a major shock? Your recipients aren't that interested in e-letters that are just marketing messages for stations. Program directors in particular are guilty of believing that e-letter recipients are just dying to learn about their latest contests, events and promotions. They aren't.

This doesn't mean you can't include any of these things. It only means that an e-letter has to be more than just a marketing piece.

See E-MAIL, page 28 ►

## STATION/STUDIO SERVICES

# YOU!

...like promotions that are easy to sell, a pleasure to air, and make you lots of money? We're all about that. Please take a moment to visit [GRACEBROADCAST.COM](http://GRACEBROADCAST.COM) and check out our :30- and :60-second "Sales Boosters." FREE demos, money-making sales helps, and ridiculously healthy returns await.



Neat Ideas. **GRACE BROADCAST SALES**  
Sound Ideas for Building Business<sup>SM</sup>

Free Demos.  
Questions? Call us toll-free (888) 472-2388.  
[www.gracebroadcast.com](http://www.gracebroadcast.com)

### March 16-21 is National AGRICULTURE WEEK

Help advertisers salute local farm families in March with these :30-second features you can sell. **FREE DEMO & DETAILS** at [GraceBroadcast.com](http://GraceBroadcast.com)  
Just Tag, Sell, and Run.

### March 23rd is Easter Sunday

**21** :30-sec. vignettes for Easter Market Exclusive!  
**EASTER TREASURES**  
Free Demo & Details at [GraceBroadcast.com](http://GraceBroadcast.com)  
Just Tag, Sell, and Run.

### SPRING CAR CARE TIPS

:30 sec. • market-exclusive



Free Demo & Details at [GraceBroadcast.com](http://GraceBroadcast.com)

toll-free (888) 472-2388 Just Tag, Sell, and Run.

### HOME IMPROVEMENT TIPS

:30 sec. • market-exclusive



Free Demo & Details at [GraceBroadcast.com](http://GraceBroadcast.com)

toll-free (888) 472-2388 Just Tag, Sell, and Run.

## ATTENTION PROVIDERS!

Promote your services to **Radio World's** readers. Reach Radio Station owners/managers and engineers with your message.

For information on affordable advertising call **Claudia** at **1-703-852-4611** or email [cvanveen@nbmedia.com](mailto:cvanveen@nbmedia.com).

## McPartland

► Continued from page 24 but I don't like that idea."

She once took advice from a drummer who told her to play "a little more out." At first McPartland didn't know what he meant, but she finally understood.

"He meant I should be a little more free, so as time has gone on I've played a little more out," she said.

She has strong feelings about world events, and sometimes they come out in her music.

The show she was rehearsing the night of the National Radio Hall of Fame induction "is a musically intricate piece that I wrote to show what is happening to the world, how people are killing birds and animals and chopping down trees," she said.

"I don't know if you can make music out of that, but that is what I tried to do. Not enough people take notice of that kind of thing. Here in New York where I live, for example, all the bees have been killed off. That's terrible."

McPartland's NPR program is a mix of conversation and improvised jazz featuring an eclectic group of musicians and writers. Guests as diverse as jazz columnist Nat Hentoff and pianist Chick Corea have added to the quirky nature of the show. It is carried on Sirius Satellite Radio and selected programs are streamed from NPR's Web site. The entire show is carried on more than 250 NPR affiliates.

Shari Hutchinson started working on the show as a post-production engineer in 1982 and assumed producer duties in 1986.

"Most of the pre- and post-production work is done at South Carolina

Educational Television and Radio in Columbia, S.C.," she said. "What many people don't realize is that this state boasts many musical pioneers and luminaries of its own such as Dizzy Gillespie. With 'Piano Jazz' we feel as if we are carrying on the tradition."

The other people on the staff are post-production engineer David Mitchell and production coordinator David Lyon. This group arranges for the recording sessions, edits and readies the program for broadcast by NPR, develops and produces promotional and fundraising materials, and communicates with guest artists, member stations, underwriters and listeners.

McPartland usually chooses the guests for the show, but she is open to suggestions.

"Just recently we recorded with Laurence Hobgood, someone who consistently appeared on the wish list of our listeners," said Hutchinson.

Moss Bresnahan, president/CEO of South Carolina Educational TV and Radio, says McPartland has been a big influence on many people.

"Jazz is such a tremendously important part of our culture, and nothing pleases us more than knowing it's our public radio station in South Carolina that allows the rest of the country to savor a musical icon such as Marian," he said.

"Not only is she a brilliant pianist, but as she proves week after week, she is a wonderful and witty individual. Most importantly for her legions of fans, Marian has that rare talent to bring out the best in her guests, both musically and personally."

To learn more about "Marian McPartland's Piano Jazz" and find a local affiliate, see [www.pianojazz.org](http://www.pianojazz.org).

Ken Deutsch says he has tickled the ivories since age 10. He doesn't play piano; he just tickles ivories. ●



# See why more broadcasters are choosing Nautel.



Nautel's integrated digital solutions make your move to HD Radio easy and economical. Call Nautel to learn more about the exciting solutions highlighted below and see how Nautel is **Making Digital Radio Work.**



**XR Family of AM Transmitters for Digital and Analog** with power outputs from 1kW - 50kW.



**V1, Nautel's new 1kW FM Transmitter:**  
Complete FM HD Radio transmitter site solution in just 6RU.



**V Series FM Transmitters:**  
Now twice as many V series transmitters to satisfy your Digital or Analog FM needs.



**Nautel Reliable HD Transport Suite:**  
Learn about Nautel's award winning studio to transmitter IP communications solution. Supported on Harris, BE and Nautel transmitters.



**Win a Cambridge Soundworks HD Radio Receiver**  
Enter at [www.nomoresecrets.com](http://www.nomoresecrets.com)

## Making Digital Radio Work.

Phone: (207) 947.8200 | Fax: (207) 947.3693 | [info@nautel.com](mailto:info@nautel.com) | [www.nautel.com](http://www.nautel.com)  
HD Radio is a trademark of iBiquity Digital Corp. All rights reserved.

World Radio History

# RAB Seeks Bold Signals for 2008

*At a Time When Radio Sales Have Been Flat, Conference Planners Aim for Something Different*

by Ken Deutsch

Depending on how radio sales managers view the changing landscape, they can either compete against emerging

media platforms, or they can use them to their own advantage.

That is the essence of the Radio Advertising Bureau's RAB2008 conference. Sales professionals will gather at

the Hyatt Regency in Atlanta this month.

"Somewhere along the way the RAB sales conference lost some of its value in the attendees' minds," said Sheila Kirby, Interep president of strategic sales development, and chair of this conference.

"I've been going to this conference for more than 20 years and I said to (RAB

## If You Go

**What:** RAB 2008 Conference

**Where:** Hyatt Regency/Atlanta

**When:** Monday Feb. 11–Wednesday Feb. 13

**How:** [www.rab.com](http://www.rab.com)

**How Much:** \$599 RAB members, \$799 non-members

## Radio Facts — Annual Revenue (in millions)

Year	Network	National	Local	Total	%Change	Non-Spot	Grand Total	%Change
2006	\$1,112.0*	\$3,553.0	\$15,478.0	\$20,143.0	0.0%	\$1,522.0	\$21,669.0	1.0%
2005	1,053.0	3,384.0	15,634.0	20,071.0	0.0%	1,384.0	21,455.0	0.0%
2004	1,081.0	3,453.0	15,479.0	20,013.0	2.0%	1,398.0	21,411.0	2.0%
2003	1,033.0	3,470.0	15,100.0	19,603.0	1.0%	1,260.0	20,863.0	
2002	1,000.0	3,275.0	15,134.0	19,409.0	5.7%			
2001	919.0	2,898.0	14,552.0	18,369.0	-7.5%			
2000	1,029.0	3,596.0	15,223.0	19,848.0	12.3%			
1999	878.0	3,211.0	13,592.0	17,681.0	14.6%			
1998	739.0	2,768.0	11,923.0	15,430.0	11.9%			
1997	646.0	2,407.0	10,741.0	13,794.0	11.1%			
1996	465.0	2,093.0	9,854.0	12,412.0	8.2%			
1995	426.0	1,920.0	9,124.0	11,470.0	7.8%			
1994	411.0	1,867.0	8,374.0	10,652.0	11.1%			
1993	407.0	1,629.0	7,532.0	9,568.0	9.3%			
1992	377.0	1,479.0	6,899.0	8,755.0	1.9%			
1991	440.0	1,575.0	6,578.0	8,591.0	-2.8%			
1990	433.0	1,626.0	6,780.0	8,839.0	5.0%			
1989	427.0	1,530.0	6,463.0	8,420.0	6.6%			
1988	382.0	1,402.0	6,109.0	7,893.0	8.2%			
1987	371.0	1,315.0	5,605.0	7,292.0	3.8%			
1986	380.0	1,332.6	5,313.1	7,025.7	7.0%			
1985	328.7	1,319.4	4,915.0	6,563.1	11.5%			
1984	288.0	1,184.4	4,412.0	5,884.4	17.3%			
1983	253.5	1,022.8	3,739.0	5,015.3	11.7%			
1982	217.5	909.4	3,365.0	4,491.9	10.7%			
1981	195.9	854.3	3,007.0	4,057.2	14.4%			
1980	157.9	746.2	2,642.9	3,547.0	11.8%			
1975	72.7	416.3	1,403.3	1,892.3	7.8%			
1970	48.8	355.3	852.7	1,256.8	4.7%			
1965	54.3	261.3	553.0	868.7	8.3%			
1960	44.9	208.0	401.6	654.5	43.4%			
1955	64.1	120.4	272.0	456.5	0.7%			
1950	131.5	118.8	203.2	453.4	46.0%			
1945	134.0	76.7	99.8	310.5				

\*Reflects increased network participation.

Sources: FCC (1945-1980); RAB analysis (1981-present) — Includes information from Ernst Young, Radio Expenditure Reports, Miller Kaplan & Arase Co., and Hungerford Aldrin Nichols & Carter

Past annual radio revenue trends according to RAB. For 2007, grand total radio revenue was down 2% through the first three quarters of the year.

executive vice president/training) George Hyde that if he wanted me to chair it and commit my time for eight months, we needed to make this year's event a complete sea change.

"At RAB2008, every attendee walks out with a CD-ROM of all the sessions, the full-on message that will bring the radio industry into the digital world."

## CDMC

One of those changes is a new certification that will be available at this year's event. A limited number of attendees will be able to earn accreditation as a Certified Digital Marketing Consultant (CDMC), a degree that can be completed during the conference.

"It will be intensive and everyone will have to pass a test at the conclusion," said Kirby. "But the information they get will be something they can bring back to their stations and help all those people who fear the future."

According to Kirby, ours is an industry in a great position to use the Internet to connect with listeners/consumers.

See RAB, page 30 ▶

## E-Mail

▶ Continued from page 26

It is essential that each e-letter contains — ready for this — *real content!* Imagine a radio station running promos for 50 minutes each hour and then playing 10 minutes of commercials. That's what you're doing each time you e-mail a piece without content.

Eventually subscribers either stop opening the pieces or they unsubscribe. Either way, you're in trouble.

It's very difficult to get people to sign up for something they've already determined they don't need. It is also quite difficult — but not impossible — to get someone to open what they routinely discard.

You will also learn that when you send out a stand-alone piece for sales — like a coupon or an advertisement for a show — your unsubscribe rate will go up. Most users will view those as junk e-mail.

What's real content? This varies by format, but generally real content entertains or informs the reader.

This can be text, audio, video or even graphics. It could be information that the reader sees first in your e-letter. It could be a truly special offer — not some 10 percent discount but a huge savings.

Content could be music news, editorial opinion, a link to the debut of a new song sample, a link to podcasts, a link to pictures or to streaming video.

Was that advice worth \$5,000? Maybe not; but I guarantee that if you'd paid me the money, you'd be more likely to follow the advice!

Contact the author at [mlapidus@cox.net](mailto:mlapidus@cox.net).

**The Fabric of Time**

**Precisely measured and delivered by**

**ESE**

Broadcasters have woven ESE precision master clocks and timing-related products into their facilities for over 35 years. ESE products accurately synchronize broadcast operations using a choice of GPS, WWV, Modem, Crystal or line frequency for affordable, reliable, perfect time.

Spend a few seconds on [www.es-web.com](http://www.es-web.com) to discover a vast universe of timing systems that are designed for easy installation, set-up and operation.

142 Sierra Street  
El Segundo, CA 90245 USA  
Tel: (310) 322-2136  
Fax: (310) 322-8127  
[www.es-web.com](http://www.es-web.com)

# NRB 2008

## CONVENTION & EXPOSITION

*The Premier Event in Christian Communications*

### Bigger is Better!

**6,000+** attendees within 145K sq. ft. of meeting space for networking opportunities and discovering what God is doing around the globe.

**325+** exhibiting companies and 135K sq. ft. containing thousands of ministry & media resources.

**150+** speakers and presenters from all areas of ministry, media and the world of business.

**70** information-packed seminars led by in-the-field experts to equip and challenge you.

**15+** functions & receptions hosted by renowned ministries.

**9** general sessions that will inspire through word and music.

**3** keynotes showcasing industry leaders within media.

**3** days of technical training and presentations.

**3** days of student-based video competition.

Only **1** place and **1** date each year.

**Think Big! Think Better!**  
Join us this March!



*I look forward to NRB each year as it is a fantastic opportunity to rub shoulders with people who are also involved in the ministry of media. It's a worthwhile investment of my time and energy to be educated by and to fellowship with the people who are leading the way in this arena of ministry.*

— Mark Zschech, Hillsong Church

*What makes going to NRB so worthwhile is interacting with other decision makers. My peers are there and I am always amazed how much I can immediately get done to advance this radio ministry by attending NRB.*

— Tim McDermott, President/General Manager, KSBJ

March 8-11

[www.nrbconvention.org](http://www.nrbconvention.org)

Gaylord Opryland Resort  
& Convention Center

Nashville, TN

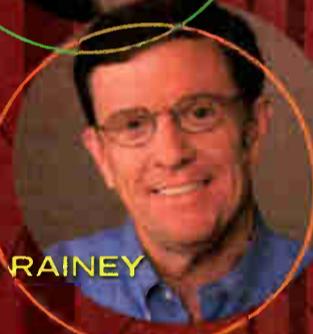
33 MILES



MICHAEL W. SMITH



PHIL VISCHER



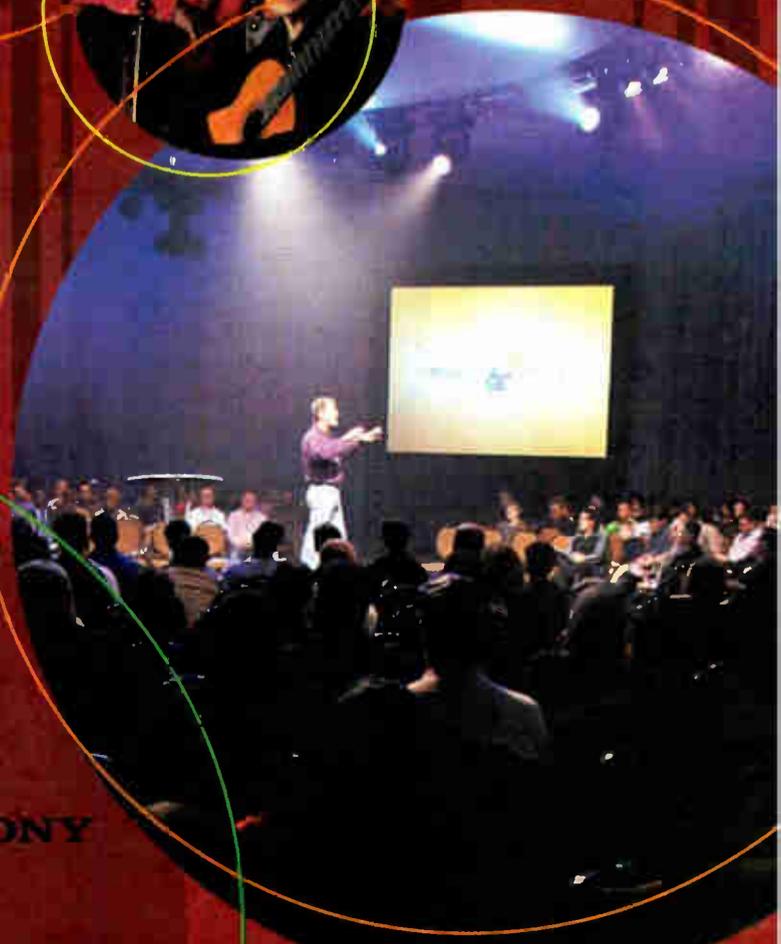
DENNIS RAINEY



PARKENING & SYKES

*The person-to-person contact is invaluable. In just a few days, I am able to meet with many of the major ministry leaders from throughout the U.S. without having to travel to their home offices.*

— Dick Jenkins, CEO  
EMF Broadcasting



# RAB

► Continued from page 28

"People don't have an emotional connection to TV because they only watch specific shows, but people do have an emotional connection to their favorite radio stations," she said.

"I should be able to go to my radio station's site and press a button and download music, the banter of the DJs if I missed it, or click on holiday shopping tips and print out menus from restaurants. And then the stations need to move even beyond that with their sites, so directions to the store or restaurant pop up and coupons print out.

"It's time to move from theory to practicality to reality."

Another bonus in the ever-changing digital world: Web site goodies no longer have to be "freebies" to advertisers.

"Today when I go out and sell to a company like AT&T, I no longer give away our digital assets," said Kirby.

"They used to be throwaways; we now monetize those. Radio commercials directing consumers via the station Web site to an advertiser's location, message or product, are powerful tools.

"Google doesn't own radio stations. MSN doesn't own radio stations. We have a huge mouthpiece to drive traffic to the Web sites that no one else has."

RAB's George Hyde agrees that radio has to make the best use of new platforms.

"Everything we've heard and seen in recent years indicates that our success

Ad Age  
Advantage System  
American Media  
(Hole'n One)  
Arbitron  
Aria Inc  
Army National Guard  
AURN  
Bid4Spots  
BMI  
BRG Music Works  
Dave Ramsey Show  
Emmis Interactive  
Enticent  
Free Play  
Google

## Exhibitors/Sponsors

HipCricket  
Ibiquity  
In a Box Business Solutions  
in3media, inc.  
Interep  
Katz Media Group  
LAN International  
Local Thunder  
Luce Performance Group  
Marketron  
Media Monitors  
Media Span  
Miller Kaplan Arase  
My Radio Success  
Odds On Promotions  
Omnia Group

Patrick Communications  
Point to Point  
Promo Suite  
RAB Educational Services  
RCS  
S C A Promotions  
Safe Assured  
Szabo Assoc. Inc  
The Media Audit  
TM Century, Inc.  
Triton Media Group  
Univision  
vCreative inc  
VMS  
We Create Inc  
Wide Orbit

will be based on our familiarity with our own medium, as well as expertise in other distribution methods.

"This is the whole thrust of RAB's slogan this year, 'bold signals.' We talk about 'online, on-site and on-air.' We have all three major pieces of marketing artillery at our disposal and now is when we need to integrate them."

Hyde talked about other tools attendees can take away with them from the conference.

"We'll show them how to start an interactive sales department," he said. "We'll have sessions on getting appointments and learning what clients really want. Our emphasis will not just be on watching one person standing up there, but hearing from experienced marketing people in a one-to-one environment."

Internet, HD, mobile phones and any other avenue that connects us with consumers. Today's consumers, particularly younger demos, will find the content they want, when and where they want it. We have everything to gain by making our content available on numerous distribution systems."

**A new CDMC  
certification will be  
available at this  
year's event.**

RAB President/CEO Jeff Haley has an interesting take on the little box first known as "the wireless."

"Radio is evolving in the new marketplace and is behaving, in many ways, like a new medium," he said. "It's hard to imagine an 80-year-old medium as a fledgling, but the environment today is so vastly different than what it was even 10 years ago that we are redefining how we interact with listeners and with advertisers."

And how should radio deal with iPods, music downloading and content delivered over cell phones? "Embrace them," he said.

"Radio is audio and we need to be open to every delivery platform available:

The RAB2008 keynote speaker is Chris Anderson, editor of Wired magazine. Also on the schedule are workshops for developing client presentations, using mapping technology, multi-platform selling, electronic audience measurement and addressing multi-cultural markets.

Now that some stations have begun to implement integrated Internet/broadcast campaigns, one session will be devoted to sharing those case histories.

The agenda is at [www.rab.com/public/rabConference/agenda.cfm](http://www.rab.com/public/rabConference/agenda.cfm).

RAB officials noted that the Monday through Wednesday schedule is a change from the pattern of previous years.

*Ken Deutsch is a long-time contributor to Radio World.*

**Desktop Delivery**

Portable HD Radio availability to rise as prices fall

**FREE DIGITAL SUBSCRIPTIONS**

**Radio World Engineering Extra**, the radio industry's top resource for credible, high-tech engineering information, has gone high-tech itself! Subscribers can now choose to receive their issues in a digital format, delivered right to their desktop. The digital edition contains all the same great articles of the printed edition, with bonus live web links and rich media content.

To start receiving your digital edition of Radio World Engineering Extra, fill out the form at <http://www.myrweemag.com>.

**Sign-up Today!**

UPGRADE SCHEDULE 2/18/08

UDP

engine

## STATION SERVICES

### Liquid Compass Has RIAA Reporting Tool

Liquid Compass is offering RIAA Reporter, a royalty reporting tool that automates the new per-performance RIAA royalty reporting requirements.

The company is a provider of streaming and digital media services to the radio industry.

"As a result of the new royalty fee arrangement announced [in 2007], streaming radio stations will no longer be allowed to report royalty fees by 'aggregate tuning hour,' which was based on the total hours of programming that the stations transmitted during a month to all listeners," the company noted.

"Instead, stations will be required to report on a per performance basis — or the total number of people listening each time a performance is played."

Royalty fees are paid by streaming stations to SoundExchange, the organization designated by the U.S. Copyright Office to collect digital performance royalties for artists and copyright owners.

Liquid Compass said its product helps streaming clients deal with the "tremendous burden" of the new reporting requirements.

"RIAA Reporter removes the burden for stations by generating a monthly and quarterly report in spreadsheet format that does all the calculations, showing what was played, how often, and the total number of listeners. Clients need only to log on to the Liquid Compass Client Control Center and select from pre-populated dropdown information such as call letters and date range. The program will automatically calculate the stations fee and provide it in a form acceptable to SoundExchange."

For information visit [www.liquidcompass.net](http://www.liquidcompass.net).

### Weather Channel Radio Expands

The Weather Channel Radio Network said it added new radio affiliates to its Spanish Language network.

They are Clear Channel stations WWVA(FM), Viva 105.7 and WBZY(FM), 105.3 "El Patron." The stations receive recorded weather reports in morning and afternoon drive along with severe weather updates.

The Weather Channel Radio Network En Español launched in 2006.

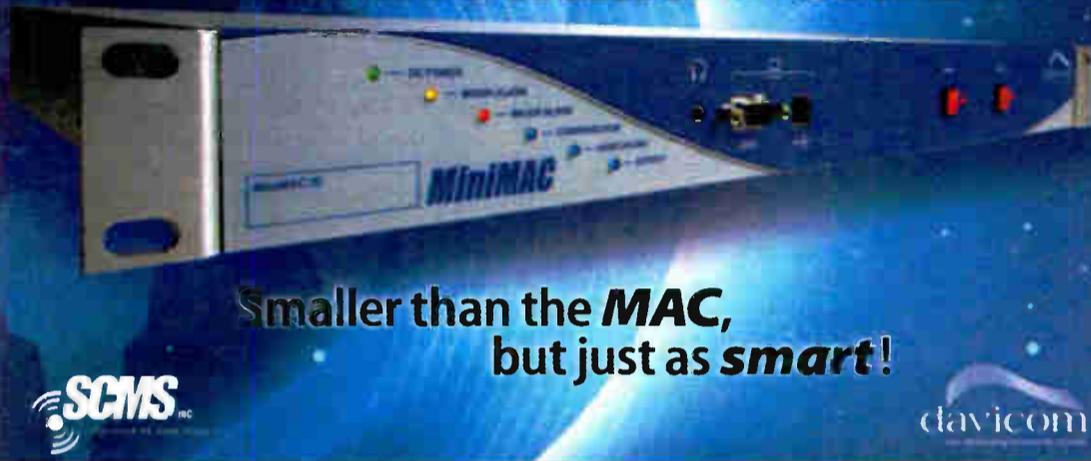
The Weather Channel also announced a new affiliation agreement with a member of the Davidson Media Radio Group, WNVL(AM) in Nashville, Tenn. Several other Davidson radio stations are members of The Weather Channel Radio Network En Español.

The Weather Channel Radio Network said it recently surpassed 700 radio affiliates in the United States, with a branded presence in 42 of the top 50 markets.

For information e-mail [twcrn@weather.com](mailto:twcrn@weather.com).

# Products & Services SHOWCASE

## The **NEW** MiniMAC Remote Control



Smaller than the **MAC**,  
but just as **smart!**



T: 1.800.438.6040 | F: 1.704.889.4540  
www.scmsinc.com

T: 1.418.642.3340 | F: 1.418.642.8996  
www.clavicom.com

## Band Scanner

USB FM-Scanning Receiver and RDS Analyzer



**\$495**

The Band Scanner is a tool to evaluate FM broadcast band congestion and to log station identification parameters. The system is powered by the USB port of any Windows PC. Supplied free of charge Windows software sweeps the receiver across the FM band, logging every carrier and generating a spectrum display of carrier level vs. frequency. It then analyzes each carrier and creates a station list. Stations with an RDS presence are further refined to show all the radio data groups being transmitted. Its interface is like a portable radio. It may be tuned manually through the receiver screen or by double-clicking a point on the spectrum plot or an entry on the station list. Spectrum plots may be saved as jpg or bmp files. The RDS data error level is graphed in a separate window on the receiver screen. The program can be monitored with headphones plugged into a standard 1/8" jack.



Contact us at  
sales@devabroadcast.com  
www.devabroadcast.com

## Make Your Move.



## Advertise!

For more information contact  
Claudia Van Veen at  
703-852-4611  
or cvanveen@nbmedia.com

Buy simplicity,  
reliability and service

## EAS

Price \$1750.00

Equipment is in stock for  
immediate delivery!

**GORMAN-REDLICH MFG. CO.**  
257 W. Union St. Athens, Ohio 45701

Phone 740-593-3150  
FAX 740-592-3898

Now available  
with optional DTMF  
control via a phone line.



- 5 two-way RS-232 inputs/outputs for computer, remote signboard & character generator
- 6 audio inputs on standard models. All audio inputs & outputs are transformer isolated from encoder-decoder board
- Automatic interruption of program audio for unattended operation
- 4 line 40 character LCD display with LED backlighting
- 20 key keypad to program unit, set modulation level, set input levels
- Will handshake with automation equipment
- 2 year warranty
- 2 minutes of digital audio storage
- 25 pin parallel printer port for external printer
- 52 terminals on the rear to interface with other equipment by removable plugs
- BNC fitting with 600ohm balanced audio out for second transmitter

[jimg@gorman-redlich.com](mailto:jimg@gorman-redlich.com) Web Site: [www.gorman-redlich.com](http://www.gorman-redlich.com)

Also available: weather radios, antennas for weather radios, crystal controlled synthesized FM (digital) tuned radios, remote signboards, cables for interconnection, character generators.

# VoxPro

## The Short/cut Replacement

Faster, simpler, easier than Short/cut or Adobe Audition. Professional grade Control Panel optional and the best support in the business!

Not to mention room-to-room Auto Network...AGC...Talk Over Removal...  
MP3 WAV WMA...Search By Title...Advanced Effects and More

audionlabs.com 206 842 5202 x203  
Available at all Broadcast Distributors

©2007 Audion Laboratories Inc. All rights reserved. Audition, VoxPro are registered trademarks of Audion Laboratories Inc. Other company and product names may be trade marks of their respective owners.

**CALL US!**



**LCD  
DISPLAY  
WATTMETER**

Model 81030

[www.coaxial.com](http://www.coaxial.com)



**Coaxial  
Dynamics**

800-262-9425

COLE'S LAW

# What Bugs Me About 'Localism'



*The Urge to Embrace Program Regulation May Seem Irresistible But It's One The FCC Should Avoid*

by Harry Cole

Get out your leisure suit, polish up that disco ball, slap some Donna Summer on the turntable and brush up your old Hustle steps. We're heading back to the 1970s, thanks to the FCC.

In November the commission announced that it has decided to require television licensees to file, with the commission in Washington, standardized quarterly reports describing a host of programming information as well as additional information "about efforts that have been made to ascertain the programming needs of various segments of the community."

While the radio universe likely breathed a sigh of relief that it had dodged that new regulatory bullet, the relief may be short-lived.

In testimony delivered to a congressional hearing, Chairman Martin later touted a proposal currently circulating among the commissioners that would, among other things, impose "processing guidelines that will ensure that all broadcasters provide a significant amount of locally-oriented programming."

According to Martin, his proposal would also require that "licensees establish permanent advisory boards in each community (including representatives of underserved community segments) with which to consult periodically on community needs and issues."

**FCC concern about 'localism' resembles the cicada: It emerges after long dormancy, generates considerable noise, leaves a mess requiring clean-up and doesn't accomplish much.**

The FCC has turned into Mr. Peabody, ushering all of us Shermans into the Wayback Machine so that we can re-live the halcyon days of regulation.

## Defining terms

Don't get us wrong. We here at *Cole's Law* firmly believe that localism is a good thing, and that the broadcast industry is at its best when it addresses local needs and interests in an accessible, meaningful manner.

But the commission is wrong if it thinks additional reporting requirements will result in new and improved programming.

Of course, it's not at all clear that any need exists for such additional requirements. For sure the FCC can't know that, because it has absolutely no way of knowing with certainty or precision what programming has been or is being broadcast. And any attempt to develop some factual record on that score would be severely hamstrung by the commission's own actions since deregulation began in the early 1980s (which you can read all about in an illuminating law review article prepared by members of *Team Cole's Law* at [www.fhh-law.com/Articles/TheMythoftheLocalismMandate.pdf](http://www.fhh-law.com/Articles/TheMythoftheLocalismMandate.pdf)).

Moreover, before any record concerning actual program practices could be developed (much less new programming rules imposed), the FCC would have to define with precision some very imprecise terms.

What, after all, is "civic programming" or "independently produced programming" — and what, for that matter, does "local" mean in this context?

We don't want to get all lawyerly and hypertechical here, but if the FCC is going to threaten some kind of dire consequence because of a failure to provide enough "local" programming, then it should be sure first to let us all know what it means by "local."

Oh yeah, and even if it defined its regulatory terms, the FCC would also have to come up with some reasonably precise quantitative standards.

How much "local" programming (whatever that may be) is enough? And even if the terms could be defined and the quantitative standards devised, how many FCC staffers is it going to take to evaluate the

program showings being submitted, and how are those staffers going to be able to evaluate those showings?

And in the end, with a huge dedication of resources, the FCC would find itself in the business of deciding what is "news," what is "local," what is "enough" coverage of particular issues, etc., etc. — precisely the types of editorial determinations the First Amendment entrusts to private editors, and from which the First Amendment bars the government.

## Irony

One of the biggest ironies here is that the burden of program regulation would likely hit small broadcasters harder than the big guys.

Smaller operations can't scale compliance costs like the bigger folks can, so they're likely to suffer more — and possibly even cut back "local" programming. But smaller broadcasters may be among those most likely to be locally owned and, therefore, presumably more likely (at least in the FCC's eyes) to be "responsive" to local needs.

How's that for the law of unintended consequences?

Plus, even in the most recent heyday of program regulation, the commission routinely granted virtually all renewal applications whether or not their program showings fell well below the informal "processing guidelines" then in place.

Don't take our word for it — go see what two commissioners (Cox and Johnson) said when they repeatedly dissented to such *en masse* grants after careful review of the applications convinced the commissioners that the renewal applicants had not necessarily served the public interest.

So it's not like the FCC has historically cared whether or not the paperwork chores it imposes ultimately lead to "better" programming.

In view of that history, a sudden return to the days of yesteryear makes little or no sense (as dissenting Commissioner McDowell commendably seemed to observe).

One of the dirty little secrets of the "localism" question is that the FCC does not have to involve itself in that question at all. While the Act doesn't preclude the FCC from imposing some "localism" obligation, the Act does not require the FCC to do so.

But despite that, the FCC seems preternaturally drawn to program regulation.

As we said to the FCC directly in a set of rule-making comments filed in the ongoing "localism" proceeding:

*Commission concern about broadcast "localism" closely resembles the 17-year cicada in a number of respects. Both emerge after periods of dormancy lasting more than a decade, both generate considerable noise during their emergence, both tend to result in messes requiring clean-up activities well after each emergence has ended, and neither accomplishes much at all, other than to lay the groundwork for the next emergence.*

Of course, like the cicada's periodic appearance, the urge to publicly embrace "localism" may be an irresistible, genetically-engrained phenomenon.

But while a cicada, emerging from its long dormancy, presumably cannot reflect on the experience of the generations of cicadas that have gone before, the commission *can* do so. *Team Cole's Law* sure hopes that the FCC takes a long and careful look at its own history before it tries to repeat it.

*RW welcomes other points of view.*

*Harry Cole is a member of the law firm of Fletcher, Heald & Hildreth, P.L.C. Reach him at (703) 812-0400 or on the Internet at [cole@fhhlaw.com](mailto:cole@fhhlaw.com). He posts news and comments on Fletcher Heald's blog site at [www.commlawblog.com](http://www.commlawblog.com).*

OMB FM TRANSMITTERS  
BROADCAST

All transmitter powers with the best quality price ratio

NEW EM 5000 S

- Solid-state FM 5 kW transmitter.
- Improved design with three independent 2 kW power amplifiers, exciter and control unit in one 19" rack cabinet.
- Redundant design.
- Record in memory of events and alarms.
- Programmable automatic power control as energy saving feature.
- Fold back SWR protection system.

F C  
OMB, the future of communication

MT/MR PLATINUM

- Studio to transmitter link system.
- Link transmitter with 20 W power output.
- Available in frequencies from 200 to 960 MHz supplied in 20 MHz bands.
- High stability oscillator.
- LCD screen display for parameter selection and readings as follows:
  - frequency (6 digits).
  - forward / reflected power.
  - modulation level.
  - pilot signal (19 KHz) sampling while in transmission.
- Audio inputs: mono balanced, stereo (MPX), and 3 SCA.
- Fold back SWR protection.

**OMB AMERICA**  
 telephone (305) 477-0973  
 (305) 477-0974  
 fax (305) 477-0611  
 3100 NW 72nd Ave. Unit 112  
 MIAMI, Florida 33122 USA  
<http://www.omb.com>  
[usa@omb.com](mailto:usa@omb.com)

**OMB EUROPA**  
 sales and customer service  
 telephone 976-504 696  
 fax 976-463 170  
 Avda. San Antonio, 41  
 CUARTE DE HUERVA  
 50410 Zaragoza, ESPAÑA  
<http://www.omb.es>

factory  
 telephone 976-503 580  
 fax 976-503 855  
 Camino de los Albares, 14  
 CUARTE DE HUERVA  
 50410 Zaragoza, ESPAÑA  
[europa@omb.com](mailto:europa@omb.com)

# BROADCAST

## Equipment Exchange

"Broadcast Equipment Exchange" accepts no responsibility for the condition of the equipment listed or for the specifics of transactions made between buyers and sellers.

**ACOUSTICS**

**WANT TO SELL**

**AcousticsFirst™**  
Toll-Free Number: **888-765-2900**

Full product line for sound control & noise elimination.

[www.acousticsfirst.com](http://www.acousticsfirst.com)

**AUDIO PROCESSING (INCLUDES ON-AIR)**

**WANT TO SELL**

Urban Processor 8100A FM - Great condition. \$800.00 - Call Roger Jacobson - 712-362-2644

RTS Model 416 DA. Will let go for \$50.00 plus S7H. Please e-mail [mraley@bbnradio.org](mailto:mraley@bbnradio.org) for pictures and information.

Symetrics A-220 Stereo Amplifier - \$100.00 "as is" email [mraley@bbnradio.org](mailto:mraley@bbnradio.org) for a picture or Mike at (704) 523-5555

Urban Digital Optimod 8200, with Digital Audio Card - Excellent condition Priced \$5700.00 - Call Gene Huff - 606-877-1326 or email [wygeradio@yahoo.com](mailto:wygeradio@yahoo.com)

**AUTOMATION EQUIPMENT**

**WANT TO SELL**

Now available, radio automation for the Linux operating system. Schedule music, voice track, create shells, auto or announcer assist mode, set intro and ending cues, hit the vocal every time with your voice tracks, execute exact time events, join networks, and more. The software is free, there is a small duplication fee. For more info call 406.665.1832.

**COMPLETE FACILITIES**

**WANT TO SELL**

**NEW OR USED COMPLETE PACKAGES**

STUDIO/STL/TRANSMITTER /ANTENNA OR ANY COMBINATION OF ABOVE.

- LEASE OPTIONS-
- EMERGENCY RENTALS-
- REMOTE BROADCAST RENTALS-

SCMS, Inc. (800) 438-6040  
"You Know We Know Radio"

**ICE PROTECTION**

**WANT TO SELL**

**Optical Ice Sensors**  
For Broadcast Antennas  
Ice, snow, rain  
No moving parts  
Sensitive, robust  
Lightweight, affordable

954-568-1991  
[www.NewAvionics.com](http://www.NewAvionics.com)

**LIMITERS/AUDIO PROCESSING**

**WANT TO BUY**

Teletronix LA-2A's, UREI LA-3A's & LA-4's, Fairchild 660's & 670's, any Pultec EQ's & any other old tube compressor/limiters, call after 3PM CST - 214 738-7873 or [sixtiesradio@yahoo.com](mailto:sixtiesradio@yahoo.com)

**MICROPHONES**

**WANT TO BUY**

RCA 77-DX's & 44-BX's, any other RCA ribbon mics, on-air lights, call after 3PM CST, 214 738-7873 or [sixtiesradio@yahoo.com](mailto:sixtiesradio@yahoo.com)

[www.radioworld.com](http://www.radioworld.com)

**MISCELLANEOUS**

**WANT TO SELL**

**ROBSON BLOWERS AND FLARE BLOWERS,**  
new & rebuilt for Elcom, Harris, CCA, CSI, McMartin. Goodrich Ent. 11435 Manderson St. Omaha, NE 68164 402 493 1886 FAX 402 493 6821

**Belar AM Modulation Monitor and Amplifier \$275.00.** Call Mike at 704 523-5555 or e-mail [mraley@bbnradio.org](mailto:mraley@bbnradio.org)

**Five (5) Sensaphone 1100 Alarm and remote monitoring units.** \$25.00 each plus S&H. E-mail [mraley@bbnradio.org](mailto:mraley@bbnradio.org) or call (704) 523-5555 for information

**McMartin MS-25B Amplifier - \$10.** e-mail [mraley@bbnradio.org](mailto:mraley@bbnradio.org) or call (704) 523-5555 for information

**Seven (7) bulk demagnetizers and Four (4) wand demagnetizers.** Sell for \$10.00 each. E-mail [mraley@bbnradio.org](mailto:mraley@bbnradio.org)

**WANT TO BUY**

Collector want to buy: old vintage pro gears, compressor/limiter, microphone, mixing consoles, amplifiers, mic preamps, speakers, turntables, EQ working or not, working transformers (UTC Western Electric), Fairchild, Western Electric, Langevin, RCA, Gates, Urei, Altec, Pultec, Collins. Cash - pick up 773-339-9035

**Equipment Wanted:** old, obsolete, or unused signal processing, recording, and playback equipment. Limiters, preamps, EQ, mixing desks, microphones, tape machines (cassette and reel), etc. **Donations gladly accepted;** asking prices considered. 443-854-0725 or [ajkivi@gmail.com](mailto:ajkivi@gmail.com).

I'm looking for San Francisco radio recordings from the 1920's through the 1980's. For example newscast, talk shows, music shows, live band remotes, etc. Stations like KGO, KFRC, KSFO, KTAB, KDIA, KWBR, KSFJ, KOBV, KCBS, KQW, KRE, KTIM, KYA, etc... Feel free to call me at 415-383-6216 or you can email me at [ronwtamm@yahoo.com](mailto:ronwtamm@yahoo.com).

**Transmitter Bandpass filter -** Power Rating at 5 KW or more - Freq 101.9 FM - Call John at 928-425-7186 or email [bill@gila1019.com](mailto:bill@gila1019.com) but must place "for John" in the subj line.

**Donations Needed**

All Volunteer, Non-profit Low Power community radios stations need Equipment. Will offer tax deduction letter, You determine donation value, We will pay shipping. Equipment shared between three Wisconsin stations. Looking for Mics, Mixers, field equipment, etc. You name it. Email: [Dan@WIECRadio.org](mailto:Dan@WIECRadio.org)

**MONITORS**

**WANT TO SELL**

Three (3) Belar RF amplifiers good condition will let go "as is" for \$185.00 each. Please contact [mraley@bbnradio.org](mailto:mraley@bbnradio.org) or call (704) 523-5555 for pictures or information

We have 4 Gentner VRC 2000 remote control units. Fail safe device not included just the remote control unit. Will sell "as is" for \$300.00 each plus s&h. Please contact Mike at [mraley@bbnradio.org](mailto:mraley@bbnradio.org) for a picture or more information.

**REMOTE & MICROWAVE**

**WANT TO SELL**

**WE RENT FOR LESS**

Blueboxes	FM Exciters
Zephyrs	FM Power Amps
POTS Codexs	STLs
RF/Audio Gear	Test Equipment

If we don't have it, we will get it!  
SCMS, INC. (800) 438-6040  
"You Know We Know Radio"

**BAY COUNTRY BROADCAST EQUIPMENT**

**BUY - SELL - TRADE**

**Your #1 Source**

**For Quality Used Radio Broadcast Equipment**

View The Latest List Online at: <http://www.baycountry.com>  
Or call and we will fax it to you.

7117 Olivia Rd., Baltimore MD 21220  
Toll Free: 877-722-1031 • FAX 443-596-0212 • E-mail: [sales@baycountry.com](mailto:sales@baycountry.com)

**SPEAKERS AND HEADPHONES**

**WANT TO BUY**

Collector wants to buy old vintage speaker & amplifier, McIntosh, Marantz, Electro Voice, Jensen, Altec, Tannoy, Fisher, Dynaco, Cash- pick up 773-339-9035

**STATIONS**

**WANT TO SELL**

FM translators in Bradenton, FL and central Florida and Jacksonville, NC. Visit [www.bbnradio.org/sale](http://www.bbnradio.org/sale) for specifics.

[www.radioworld.com](http://www.radioworld.com)

**RADIO MANAGERS:** make '08 great...Buy your own!! AM's, FM, Combos, and Clusters for sale: Large, Medium and Small Southern markets. Take charge of your life and call today! 256-613-2640 - Dave Hedrick & Associates

**STUDIO ACCESSORIES/ SUPPORT**

**WANT TO SELL**

Audio Arts Model PS 6040 power supplies (Audio Arts R-60). Will let go for \$100.00. Please contact [mraley@bbnradio.org](mailto:mraley@bbnradio.org) or call (704) 523-5555 for information.

Four (4) Audio Arts R-60 manuals for \$10 each (price in-cludes shipping). E-mail [mraley@bbnradio.org](mailto:mraley@bbnradio.org) or call (704) 523-5555 for more information.

LPB Blue 5c consoles - We've got about seven of them in good condition. We will let them go "as is" for \$350.00 each plus S&H. Contact Mike Raley at (704) 523-5555 or e-mail [mraley@bbnradio.org](mailto:mraley@bbnradio.org) for pictures.

**STUDIO-TRANSMITTER LINKS (STL) AND RPU**

**WANT TO SELL**

Harris Digital STL Xmtr CD Link, Digital STL Receiver 950T - Excellent condition. Priced \$5800.00 - Call Gene Huff - 606-877-1326 or email [wygeradio@yahoo.com](mailto:wygeradio@yahoo.com)

**TAPES/CARTS/ REELS/CDs**

**WANT TO BUY**

Large or small collections of 16" transcriptions or 12" transcriptions, not commercial LPs. Bill Cook, 719-687-6357.

Schnader telecriptions 16 mm musical films produced in the early 50 s. Bill Cook, 719-687-6357.

**TEST-METERING-MONITORING**

**WANT TO SELL**

Test Equipment: 1. Spectrum analyzer 2. FM Field Strength Meter 3. Analog Bird Thru-line wattmeter w/ slugs - Call John at 928-425-7186 or email [bill@gila1019.com](mailto:bill@gila1019.com) but must place "for John" in the subj line.

[www.radioworld.com](http://www.radioworld.com)

**Radio World**

**We've MOVED!!**

**NEW address**  
5285 Shawnee Road, Suite 100  
Alexandria, VA 22312

**NEW phone #**  
Main: 703-852-4600 • Fax: 703-852-4583

**NEW email**  
Example: [cvanveen@nbmedia.com](mailto:cvanveen@nbmedia.com)

**NewBay Media**

**Broadcast Equipment Exchange**

**"BEE"**  
in the habit  
of selling your used  
equipment here!

Contact Claudia for details at  
**703-852-4611 • [cvanveen@nbmedia.com](mailto:cvanveen@nbmedia.com)**

## Consultants

**Consulting Communications Engineers  
EMC Test Lab**

- FCC Applications and Field Engineering
- Frequency Searches and Coordination
- AM-FM-CATV-ITFS-LPTV
- EMC Test Lab-FCC and European (IEC)

**OWL ENGINEERING, INC.**

E-mail: [info@owleng.com](mailto:info@owleng.com) **651-784-7445** Fax (861) 784-7841

8844 Hamline Ave. N., Shoreview, MN 55126 Member AFCEE

**EVANS ASSOCIATES** Consulting Communications Engineers

FCC Applications • Design • Field Engineering • Tower Detuning Upgrade & Relocation Studies • AM Directional Array Tuning & Proof

EXPERTS IN:  
TV • DTV Transition • FM • Directional Antennas • RF Exposure

210 S. Main St., Thiensville, WI 53092. (262) 242-6000, FAX (262) 242-6045  
<http://www.evansassoc.com> Member AFCEE

**MEDIA TECH INC.** 704-799-2245  
[jpierce@mediatechusa.com](mailto:jpierce@mediatechusa.com)

High-quality Internet Streaming  
For Broadcasters!

Give us a call to "hear" the difference!  
Streaming Equipment available

**Steve Warren – Radio Programming**

Consultant, talent trainer, radio personality, and speaker at NAB & state associations, is now accepting programming clients for 2008 in adult formats. Flexible rates for small markets, multi-station clusters, and regional groups. Steve is author of *RADIO: The Book* and top advocate of "localism" in radio.

Call Steve Warren, personally and confidentially, today at 800-827-1722.

Please visit his website: [www.mormedia.biz](http://www.mormedia.biz)

### DISTRIBUTOR DIRECTORY

The following distributors serving the broadcast industry would be glad to help you with any of your requirements.

**CORNELL-DUBILIER MICA CAPACITORS**  
FROM STOCK

**JENNINGS VACUUM CAPACITORS**  
FROM STOCK

**JENNINGS VACUUM RELAYS**

**SURCOM ASSOCIATES**  
2215 Faraday Ave., Suite A  
Carlsbad, California 92008  
(760) 438-4420 Fax: (760) 438-4759  
e-mail: [link@surcom.com](mailto:link@surcom.com) web: [www.surcom.com](http://www.surcom.com)

**Doug Vernier**  
Telecommunication Consultants

Broadcast Engineering Consulting  
AM/FM/TV/LPTV/DTV  
Custom mapping service  
Frequency searches  
Propagation prediction  
FCC application preparation

**Vsoft**  
Software for your PC

(800) 743-3684  
[www.v-soft.com](http://www.v-soft.com)

**R. MORGAN BURROW, P.E. & ASSOCIATES, P.C.**

**ALLOCATION STUDIES**  
(AM, FM, TV, LPTV) New facilities, site relocation, FM upgrade, duplex

**FIELD WORK A SPECIALTY**

- AM Directional antenna adjustment, measurement & proof
- RADHAZ measurements RADiation HAZard evaluation
- FM & TV field intensity & other measurements
- Facility inspections for purchase/insurance purposes
- CATV Leakage Testing

**ELECTROACOUSTICS** OSHA measurements

[rmburrow@comcast.net](mailto:rmburrow@comcast.net)  
304-258-7921 • Cell 301-938-0985

**COMMUNICATIONS TECHNOLOGIES, INC.**

- AM, FM, TV coverage & Upgrades
- Broadcast transmission facility design
- FCC applications preparation - construction permit and license engineering

Clarence M. Beverage • Laura M. Mizrahi  
P.O. Box 1130 Tel: (856)985-0077  
Marlton, NJ 08053 Fax: (856)985-8124  
[www.commtechrf.com](http://www.commtechrf.com)

**FASTER... MORE ACCURATE RADIO COVERAGE**

- Real Time 3-D Displays
- Interference calculations
- Cost effective mapping
- Fully integrated databases
- Used by the FCC
- Latest standards built-in

**RADIO SOFT**

Visit us on the web at [www.radiosoft.com](http://www.radiosoft.com)  
101 Demarest Sq., #6, Demarest GA 706-794-2725

**SCMS INC.** "Call me for your studio equipment needs"

YOU KNOW WE KNOW RADIO!

John Lackness  
Sales

210-775-2725  
P.O. Box 932 - Cibola, TX 78108  
[johnl@scmsinc.com](mailto:johnl@scmsinc.com)  
BROADCAST EQUIPMENT SALES AND RENTALS

**GRAHAM BROCK, INC.**

BROADCAST TECHNICAL CONSULTANTS  
Full Service: From Allocation to Operation AM/FM/TV/AUX Services:  
Field Work: Antenna and Facilities Design

Over 45 years engineering and consulting experience

912-638-8028  
202-393-5133  
[www.grahambrock.com](http://www.grahambrock.com)

Serving Broadcasters Since 1948

9049 Shady Grove Court  
Gaithersburg, MD 20877  
(301) 921-0115  
Fax (301) 590-9757  
[mullaney@mullengc.com](mailto:mullaney@mullengc.com)

**Mullaney Engineering, Inc.**  
Member AFCEE

**AM Ground Systems**

Reliable, On-time Installation  
Quality Workmanship  
Ground System  
Evaluation and Repair

[www.amgroundsystems.com](http://www.amgroundsystems.com)  
**1-877-766-2999**

Buying Or Selling Used Equipment?

You're in the right place!

**Radio World**  
Broadcast Equipment Exchange

Call Claudia (703) 852-4611

### TRANSMITTERS/EXCITERS/TRANSLATORS

**WANT TO SELL**

OFF THE AIR?  
Emergency Back-up Rentals

FM Exciters - STLs -  
FM Pwr Amps - Antennas -  
Studio & Test Equipment

**SCMS Inc (800) 438-6040**  
"You Know We Know Radio"

Rest Assured! **FCC Certified**  
FM Stereo Transmitter

- ✓ 50W RF output, continuous duty!
- ✓ Auto protect with auto soft fail & auto restore!
- ✓ Automatic battery backup!
- ✓ Digital display of all parameters
- ✓ Perfect for LPFM, Translators, as well as stand-alone exciters

[www.ramseyelectronics.com](http://www.ramseyelectronics.com)  
800-446-2295  
In Our 33rd Year!

**DBS**  
Diversified Broadcast Systems

- AM Transmitters  
500 to 50,000 watts
- FM Transmitters  
20 to 30,000 watts
- STL Transmitters/Receivers
- Television VHF UHF  
Analog and Digital
- FM and Television Antennas
- Transmission  
Line and Connectors

**Benny Springer**  
1-800-210-1737  
[BennySBP@aol.com](mailto:BennySBP@aol.com)

Used Harris Gates MW-f (5k day 1k night transmitter serial 90939). \$1000.00 plus buyer responsible for removal. [mralej@bbradio.org](mailto:mralej@bbradio.org) for pictures.

CCA AM 10,000 D - Call John KQSS 928-425-7186 between 10 & 6 PM Pacific Time.

**WANT TO BUY**  
67 kHz (SCA Channel 1) Used or repairable (with manuals if available) - call John 517-316-5307

AM Phasors, Phasor Parts, Phase Monitors, Rf Switches, AM Transmitters. Continental Communications 314-664-4497, [Contcomm@Sbcglobal.net](mailto:Contcomm@Sbcglobal.net)

[www.radioworld.com](http://www.radioworld.com)

**BESCO** World Leader in AM-FM Transmitters  
"Now in our 34th year"

**AM & FM Pre-Owned Units In Stock**

All Powers • Manufactures • Instruction Books • Spares & All Complete

Visit our Website:  
[www.besco-int.com](http://www.besco-int.com)

Or Call Rob Malany, National/Int'l Sales at 321-960-4001

**BE FX-30 watt FM Exciter** - Excellent condition \$950/offer - call 231-845-9666 or email [sales@wmom.fm](mailto:sales@wmom.fm)

**Model TH- 4.6 am transmitter** looks like new, flea power FCC part 15, but locks on a freq 520-1700 has mic and line level inputs built in 5 min recorder. \$100. or so ask for Alleo at (770)-300-9287 after 8am or email [alleo21@yahoo.com](mailto:alleo21@yahoo.com)

**Motorola Two Way transmitter (855.8375) Model C551 0107A** removed from service due to breach of lease agreement (company went bankrupt). Cannot find much information but if you are interested please send an e-mail to [mralej@bbradio.org](mailto:mralej@bbradio.org)

**FM Translator at 104.5** - Manchester, KY Call Joey Kesler 606-843-9999

**Two AM MW-10 Transmitter, One On 1030, In WV- One On 1040, In NC - Assemble One From 2.** Keep Remainder For Spare Parts. Make Offer. Contact Vernon H. Baker WPAR FM 540-961-2377 or [vbaker@vtacs.com](mailto:vbaker@vtacs.com)

**Reach Broadcast Professionals!**

For more information, including rates & deadlines, call Claudia Van Veen at 1-703-852-4611.

Advertise today!

**Radio World**

Looking for a good deal?  
You've come to the right place.

To advertise call Claudia VanVeen at 703-852-4611 or [cvanveen@nbmedia.com](mailto:cvanveen@nbmedia.com)



**POWER TUBES  
REBUILT  
-----  
1/2 THE COST  
OF NEW!**

**ECONCO**

TEL: 800-532-6626  
INTL: +1-530-662-7553  
FAX: +1-530-666-7760  
www.econco.com  
SE HABLE ESPAÑOL



**EMPLOYMENT**

**HELP WANTED**

**Saga Communications, Inc.** seeks a Chief Engineer in Charlottesville, Virginia. We require that you have a minimum of 5 years experience in Broadcast Engineering AF, RF, and IT in order to manage and care for our 3 FM and 2 AM stations. FCC and SBE certifications a plus; Resume, salary requirements and references for consideration to Renee Quesenberry, General Manager - Charlottesville Radio Group, 1140 Rose Hill Drive, Charlottesville, VA 22903.  
Saga Communications, Inc. is an Equal Opportunity Employer.

**CHIEF ENGINEER** - Independently owned radio group seeks Chief Engineer to drive stations into 21<sup>st</sup> Century. Northeast Broadcasting has 25 years of success in local radio. Be part of the senior management team. Help with new build-outs, IT and develop cutting edge interactive systems. Take direct responsibility for WXRV, Boston. EOE. Women and minorities encouraged to apply. Please send your resume to: bobr@nebcast.com

**PROMOTE YOUR BUSINESS! ADVERTISE!**

**TRUMAN STATE UNIVERSITY** seeks applications for the position of CHIEF ENGINEER. The position includes full-time engineering responsibilities for two digital IBOC transmitters, television production/control/master control facility, video and radio remote functions, production and studio equipment, and a satellite receive/cable distribution center. Qualifications include a bachelor's degree or equivalent combination of education and experience and 3 years of experience in broadcast engineering. For a complete job description, including application instructions, visit <http://hr.truman.edu/jobs>. Phone: 660-785-4031 Fax: 660-785-7520 AA/EEO/ADA

A RADIO CHIEF ENGINEER for a six-station group is needed in St. Louis. Candidates will have a minimum of five years experience in radio, and have experience with high-power transmitters, analog and digital microwave STL systems, audio mixers, and digital-audio routers. Experience with computer operating systems including Novell, Windows XP/2000 and Windows Server 2003 is necessary. Also needed is familiarity with telephone systems, studio and facility wiring, and FCC rules and regulations. This position requires night and weekend hours and a team player with the ability to work with a variety of people. Prophet Nexgen experience is also a plus. Send resumes to daryl@ccstlouis.com

Buying used equipment?  
Selling used equipment?  
**YOU'RE IN THE RIGHT PLACE!**

**POSITIONS WANTED**

Are you a small market station needing a good nuts & bolts engineer in the LA area? I will make your station shine! CET, fully FCC Licensed. Available for Full/Part-time/Contract work. Available immediately. Mitchell Rakoff. 917-324-8466 mitchellrakoff@yahoo.com

**C.E. position wanted:** Experienced with computers, transmitters, H.C. transmitters, automations, digital studios. Robert King, Call: (915) 581-2979.

**Bilingual with great On-Air presence/delivery, excellent voiceover, creative copywriting ability.** Very positive, driven, and dependable. Strong work ethic, and able to multi-tasked. Sandra 972-820-8836, sanquez77@yahoo.com

**Dallas experienced, zealous, fun, involved, self-motivated broadcaster** looking for employment. Strong delivery, on-air presence and digital and production skills, plus creative copywriting. Mason 817-986-8836 nobooythepa@yahoo.com

**Dynamic voice plus delivery!** Solid digital and technical capacity. Effective, creative writing. Good prep/tight boards. Professional attitude, strong organizational skills. Dave Acosta dia221@msn.com, 469-693-7200

**ADVERTISE YOUR EMPLOYMENT AD ON OUR WEB SITE FOR ONLY \$2 PER WORD!**  
ADS GET POSTED THE NEXT BUSINESS DAY AND WILL RUN FOR A FULL TWO WEEKS!  
COMBINE THIS WITH AN AD IN OUR RADIO WORLD NEWSPAPER EMPLOYMENT SECTION AND REALLY COVER THE BROADCAST INDUSTRY AND THEN SOME!  
[www.radioworld.com](http://www.radioworld.com)  
Call Claudia Van Veen for all the details at **703-852-4611**  
[cvanveen@nbmedia.com](mailto:cvanveen@nbmedia.com)  
between 9-5 EST



Looking to buy or sell used equipment?  
**Look no further, you're in the right place!**  
Call today for current rates & deadlines!  
**703-852-4611**

**TRANSMITTERS/EXCITERS/TRANSLATORS, cont.**

**Transcom Corporation**  
[www.fmamtv.com](http://www.fmamtv.com)

**Used AM and FM Transmitters from Leading Manufacturers**

Contact us for quotes on:

- Custom Retuning
- New Cable
- New Antennas
- New STL & Remote controls

[transcom@fmamtv.com](mailto:transcom@fmamtv.com)  
215-938-7304 800-441-8454 215-938-7361(fax)

**TUBES & COMPONENTS**

**ISO 9001 Certified**  
*The Choice of Successful Broadcasters Since 1934*

**NEW POWER TUBES**  
Triodes  
Tetrodes  
Pentodes

**NEW SOCKETS & REPLACEMENT PARTS**

**Worldwide Availability**

Made in U.S.A.

CALL 800-414-8823  
Int'l (650) 592-1221  
Fax (650) 592-9988

Visit our Web Site at [www.eimac.com](http://www.eimac.com)

**D And C Electronics**  
An International Distributor of RF Components  
**Tubes**  
NEW & REBUILT

TRANSMITTERS, STUDIO EQUIPMENT, STLS, ANTENNAS, RADIO DATA SYSTEM (FOR CAR RADIO DISPLAY) EXCITERS-TRANSMITTERS, TRANSLATORS, MIXERS-CONSOLES, RADIO LINK RPU, MOSFETS, VACUUM CAPACITORS, SOCKETS

**Pro-Tek® EEV**

BROADCASTING USA DISTRIBUTOR

**BEST PRICES** To Order: 1-800-881-2374  
Outside U.S. (352) 592-7800  
Se Habla Español

**FROM OUR STOCK**

P.O. Box 6409 Spring Hill, FL 34611 352-592-7800  
BEST SERVICE Fax 352-596-4884  
Website: [www.dandcelectronics.com](http://www.dandcelectronics.com)

**RF PARTS™ CO.**  
Se Habla Español We Export

**EIMAC • TAYLOR • SVETLANA**  
New & Rebuilt Tubes - Same Day Shipping

Motorola • Toshiba • SGS • Thomson & Mitsubishi Semiconductors

800-737-2787 760-744-0700  
[rfp@rfparts.com](mailto:rfp@rfparts.com) [www.rfparts.com](http://www.rfparts.com)

**FOR THE BEST PRICE**  
& 24 Hr service on transmitting tubes & sockets/parts, new & rebuilt call Goodrich Ent. at 402-493-1886 day or night, [www.goodrichenterprises.com](http://www.goodrichenterprises.com)

# ADVERTISER INDEX

This listing is provided for the convenience of our readers.  
Radio World assumes no liability for inaccuracy.

PAGE	ADVERTISER	WEB SITE URL
24	Altronic Research	www.altronic.com
10	Armstrong Transmitter Co.	www.armstrongtx.com
31	Audion Labs	www.audionlabs.com
13	Axia - A Telos Company	www.axiaaudio.com
17	Axia - A Telos Company	www.axiaaudio.com
8	Bradley Broadcast	www.bradleybroadcast.com
11	BSI	www.bsiusa.com
3	BSW	www.bswusa.com
4	Burli Software	www.burli.com
31	Coaxial Dynamics	www.coaxial.com
7	Comrex Corporation	www.comrex.com
31	Davicom, a Div. of Comlab	www.davicom.com
31	Deva Broadcast Ltd	www.devabroadcast.com
28	ESE	www.es-web.com
23	Google Inc.	www.google.com/ads/asaudio
31	Gorman Redlich Mfg	www.gorman-redlich.com
26	Grace Broadcast Sales	www.gracebroadcast.com
21	Harris Corporation	www.broadcast.harris.com
14	Heil Sound, Ltd.	www.heilsound.com
12	Inovonics Inc	www.inovon.com
6	Kintronic Labs Inc	www.kintronic.com
19	Logitek	www.logitekaudio.com
18	Moseley Associates	www.moseleysb.com
29	Nautel Ltd.	www.nautel.com
32	OMB America	www.omb.com
15	Omnia - A Telos Company	www.omnia.com
5	Radio Systems Inc	www.radiosystems.com
25	RCS	www.rcsworks.com
22	Sine Systems	www.sinesystems.com
9	Telos Systems - TLS Corp.	www.telos-systems.com
39	Vorsis	www.vorsis.com
40	Vorsis	www.vorsis.com
1	Wheatstone Corporation	www.wheatstone.com
2	Wheatstone Corporation	www.wheatstone.com

## ◆ READER'S FORUM ◆

### Shine On, AM

Let's play fair. Large AM radio stations should be in parity with smaller stations that don't have big-station funds (or interest) in HD Radio.

If a major-market 50 kW station can participate in legalized IBOC jamming over 30 kHz of spectrum space or more, smaller stations should be allowed to remove their NRSC filters and compete with a high-fidelity signal of their own.

Even better: If NRSC filter removal is not appealing to stations already participating in HD Radio, how about a deal with Ibiquity?

Maybe Ibiquity would allow trade-ins of old equipment for new HD encoders! Let's see ... in the back room we must have a C-Quam stereo encoder we don't need. Do you think they'll accept a license for an expanded-band allocation? How about that Sony SQ quad encoder or this great FMX box?

I'm sure Ibiquity would love to corner the market on used NRSC filters.

Just leave AM radio alone! Please turn off HD Radio IBOC, pull out the NRSC filters and let a grand old medium serve its public well. No other technology can achieve direct nationwide distribution using a \$10 handheld receiver. And, no, I don't want to listen to all my radio via the Internet quite yet. Get back to basics and let AM radio shine again.

Have you ever heard two or three IBOC beehives phase together? Oh, my poor ears! Here comes the train! Let's stop it before it's completely out of control.

*Karl Zuk, N2KZ  
Katonah, N.Y.*

*Zuk writes the blog www.karlz.uk.blogspot.com.*

### Badgering the 'Witness'

Paul, interesting letter from the unnamed engineer ("Rational Discussion or Luddite Rant," Nov. 21).

He is almost a witness for the prosecution against IBOC. I'm not an engineer but I'm not stupid, and throwing names is the same tactic we see in presidential politics.

Here's what I do know. IBOC NRSC masks, band pass, 5 kHz or 10 kHz mean nothing. It's what you hear on the average commercially available radio. I hear IBOC hash — WSM(AM) 650 just trashed up; WBT(AM)1110 irritating to listen to. And so on.

The "witness" said he broadcasts in HD with no complaints. I tried to complain to WTAM(AM) 1100 in Cleveland for its hashing up WBT and that was a trip. I believe I was insulted.

But more than that, I've talked to record promoters and artists, as we're about the music here at WAGS Radio, and they don't know what it is they're hearing. They don't know to complain. In one conversation the artist thought it was their radio, not something else.

It's like people who blame themselves for the magenta (pink) tinged clouds or cyan (sea green) tinged clapboard on the house in their snapshots processed at the drugstore. It's not their Kodak Instamatic, it's improp-

erly printed negatives. Having been a professional photographer for more than 25 years before buying WAGS Radio, I know poor work from a color lab when I see it.

You don't have to be an engineer to hear crappy audio. I don't need a scope or spectrum analyzer to hear the hash. In or out of the mask, it's there. Maybe the mask is wrong. It is an arbitrary line made up by engineers.

If, as Cris Alexander says, the FCC has sanctioned IBOC and that we Luddites of the anti-IBOC crowd should just get used to it, then why, other than abject fear of the government, should anyone in broadcasting be concerned with a little side noise because of over-modulation, or any of those things that cause the second harmonic to go above spec? I doubt I could wreck the havoc that IBOC causes even if I tried.

And finally, why does the unnamed "witness" hate wide-band AM and Leonard Kahn so much? Mr. Kahn has written in Radio World in the past few years and didn't seem so loony to me; he raised some very compelling questions which have gotten no real answers.

[There is] so much political capital, cash capital and emotional capital invested in IBOC that ego prevents the IBOC folks from saying, "Oops let's just start over. This ain't going to work very well."

*Jim Jenkins  
Owner/GM  
WAGS Radio  
Bishopville, S.C.*

### Thanks, Ernie

I'm still smiling over the fact that Ernie Harwell, one of the great sportscasters of all time, picked up the Radio World piece I did back in January ("Re-Creating Baseball Games a 'Fine Art'," Jan. 3, 2007) and did a column on it Oct. 8 in the Detroit Free Press.

I will be sending a "thank you" letter to Ernie, today.

*Big Jim Williams  
Goleta, Calif.*

### Close Call

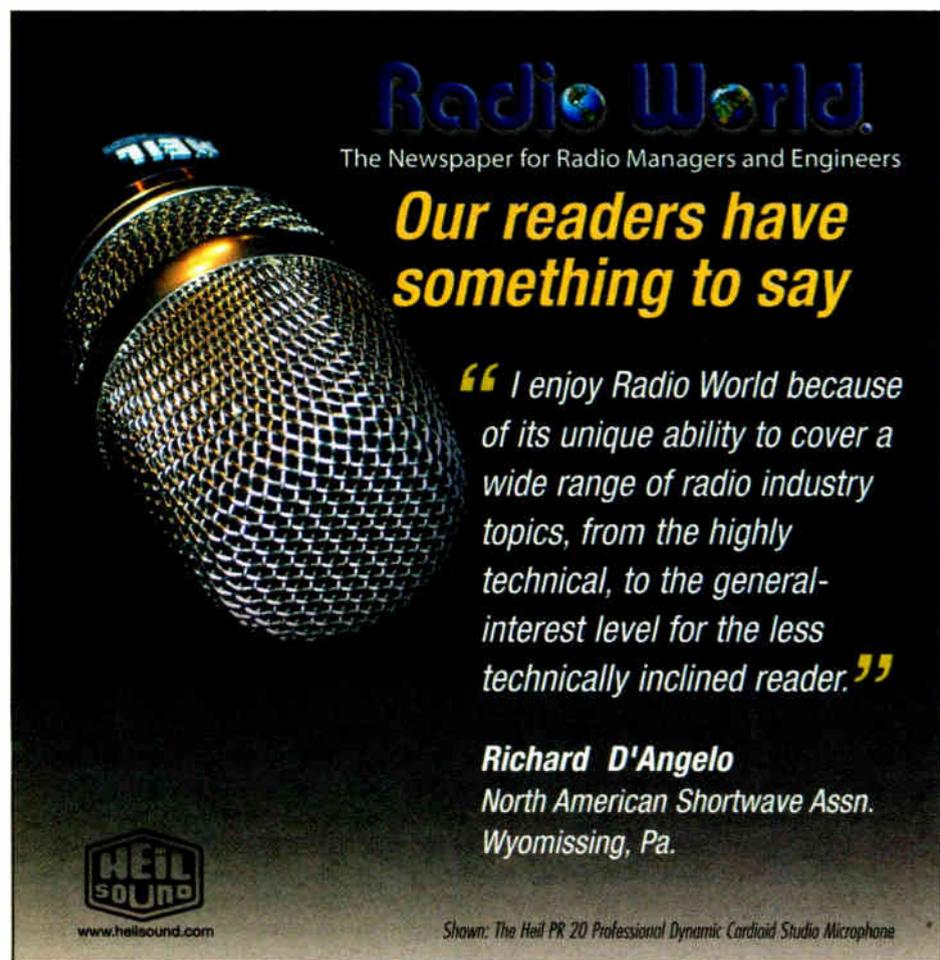
I appreciated Buc Fitch's article ("The General Electric Phasitron FM Transmitter," Oct. 24). It brought back many memories.

One of them: I was with WMAS(FM) operating its Phasitron transmitter on top of Mount Tom near Springfield, Mass., working my way through college in the early 1950s. I noticed a small mouse crawling in the transmitter — but right after that a snake was behind it looking for a meal. I was afraid the snake would get across the high voltage and it turned out to be a copperhead; nothing to play with.

So I grabbed my .38 and aimed it at its head, and was beginning to squeeze the trigger, and noticed right behind the head was the reactance tube of the Phasitron.

I stopped just in time or the exciter would have been blown to bits. Instead of the pistol I used a broom to ease the copperhead away from the transmitter. A close call.

*Clayton Roberts  
President  
Mars Hill Broadcasting Co.  
Syracuse, N.Y.*



**Radio World**  
The Newspaper for Radio Managers and Engineers

**Our readers have something to say**

*"I enjoy Radio World because of its unique ability to cover a wide range of radio industry topics, from the highly technical, to the general-interest level for the less technically inclined reader."*

**Richard D'Angelo**  
North American Shortwave Assn.  
Wyomissing, Pa.

**HEIL SOUND**  
www.heilsound.com

Shown: The Heil PR 20 Professional Dynamic Cardioid Studio Microphone

## GUEST COMMENTARY

# Don't Close Shortwaves, Improve Them

*Instead of Closing Valuable Stations Like Kavala, BBG's Engineers Should Recommend Improvements*

by Jack Quinn and Nick Olguin

U.S. international broadcasting is dysfunctional and it is time to initiate vast changes. The Broadcast Board of Governors has done enough damage to the U.S. public diplomacy.

We, the authors, have been associated with both VOA and RFE/RL our entire professional lives. We have been openly critical of many decisions reached by government policymakers affecting U.S. international broadcasting operations. But never more so than during the last eight years since BBG was created in 1999 and placed in charge of delivering our nation's public diplomacy messages.

Members are appointed by the current president and given full responsibility for oversight of all U.S. non-military international shortwave broadcasting. The board consists of four Democrats and four Republicans plus the non-voting U.S. Secretary of State.

Rather than remaining an oversight committee, it wasn't long before the BBG basically took over day-to-day operational control of all the radios. None, repeat none, of the board members has any experience in international programming or in the technical operations of shortwave broadcasting. A few had experience in commercial U.S. AM/FM markets, also with the Internet and satellite TV.

One such appointee was founder and chairman of Westwood One, a 1,000 AM/FM station nationwide network. It became immediately evident to interested observers that the BBG considers high-powered shortwave as something from medieval times. Neither did it appreciate, nor understand, the technical properties, capabilities and value of mainstay shortwave facilities.

The board began eliminating stations almost immediately, and started re-allocating associated funding to create technology with which it was more familiar. One needs only look at the United States' failed public diplomacy programs around the globe, but particularly in Russia, to see what catastrophic results these efforts have wrought.

The BBG has already eliminated the following irreplaceable shortwave facilities:

- Number of Sites: 8
- Number of Transmitters: 71
- Total kW: 22,500
- Total Effective Radiated Power kW: 2,400,000

Unfortunately, once you relinquish foreign govern-

ment-leased sites, and simultaneously forfeit all assigned frequencies back to the International Telecommunications Union in Geneva, Switzerland, they are nearly impossible to regain.

There is no doubt in the minds of experienced shortwave broadcasters that the Internet, satellite TV, medium and shortwave can all play a role taken together in an effective public diplomacy program. But you must have the technical knowledge and expertise to calculate which combination produces maximum results for a given area.

Contrary to BBG beliefs, there are millions of people in the world who do not have access to either the Internet or satellite TV. They still depend upon their world-band shortwave radios for outside information and news.

A prime example of the need for dependable, strong shortwave radio can, once again, be found in our old nemesis, Russia. Freedom of the press has been extinguished and there is a crying need for the free world to broadcast unbiased news to the masses of Russia. Shortwave has always been the only medium capable of reaching a maximum numbers of ex-Soviets.

The irony in all of this is that the BBG recently cancelled the unexpired lease on the one shortwave location that would have guaranteed our nation's ability to impact and affect events in Russia. The facility was the irreplaceable site located at Playa de Pals, in eastern Spain.

The station stood on a pristine beach with an unobstructed one-hop signal path straight into beautiful downtown Moscow — the most ideal transmitting site for this purpose on the planet. With its abandonment, the Spanish quickly emptied the buildings and demolished the station's mammoth 530 foot towers supporting 28 dB gain curtain antenna arrays last spring. See <http://youtube.com/watch?v=LT5F9nvtyWo>.

## Save Kavala

Once again, the BBG is readying to close another valuable U.S. property, the only one still capable of putting strong shortwave signals into Moscow and much of

Russia with existing equipment.

Instead of closing this valuable station located in Kavala, northern Greece, engineers serving the BBG should, for once, stand up to the board and strongly recommend improvements. The station now has 12 250 kW transmitters. These should be replaced with 12 German-designed ALLISS transmitter/antennas systems.

The ALLISS system consists of a 360 degree continuously rotatable curtain antenna array, including either a 250 or 500 kW transmitter, installed inside the concrete bunker supporting the antenna. Kavala, with new, total directional flexibility to cover other trouble spots, could hit the entire Middle East, North Africa, Russia to the Urals on one hop. It also could provide excellent coverage of Central Africa, Pakistan/India and Central Russia on second hop.

Consider this: The Chinese have adjudged shortwave very important because it recently purchased 13 ALLISS systems just to jam VOA broadcasts.

Hopefully, there remains enough judgment in the administration and motivation in the Congress to stop the Kavala station from being closed down.

The BBG may rebut this guest commentary. They have stables full of taxpayer-funded PR experts, lawyers and writers at its disposal. Therefore, rebuttal costs are of no concern if they save its status quo.

It has been proven time and again that a government agency cannot be as cost-effective as private industry. Federal agencies are hampered by complex federal procurement laws, unionization and bureaucratic regulations. U.S. non-military international broadcasting should be privatized. The successful RFE/RL Cold War format was a winner, and should be seriously considered.

Wake up America! It's time for change.

Quinn was an engineer or engineering manager at G.E. KGEI Belmont, Calif.; CBS Hollywood; CBS/VOA Delano; and RFE Munich. He spent 30 years with Eimac Power Tube Division and was a VOA/RFE/RL consultant. Olguin worked with the U.S. Army Strategic Communications Command in the United States, Eritrea and Iran; as a VOA plant supervisor and station manager in Greece, Germany, the Philippines and Thailand; and as a station manager with RFE/RL in Germany and Spain.

## ◆ READER'S FORUM ◆

### Satellite Merger

Paul McLane's thoughts on the XM and Sirius merger are interesting ("Merger Ad Nauseum," Reader's Forum, Nov. 21). The interest of broadcasters and the NAB are a little more perplexing.

We seem to have a strong concern for the "public interest," where the merger of these two satellite services would create a monopoly. By definition, since they compete with us (broadcasters) along with every iPod and portable player, are they really a monopoly? For Pete's sake, they are a paid program provider and the service they provide is far from a necessity for anyone's survival.

I would rather see our government become a little more concerned with gasoline monopolies and price gouging than whether some simple-luxury item (like cable TV or radio satellite service) is strictly regulated.

We have corn prices flying through the roof, along with milk and every product related to corn feed for animals — as someone decided that taking a main food staple and turning it into a gasoline replacement was a good idea; go figure! Gasoline prices are completely out of hand. Yet our government has said that the economy will regulate pricing for these items; necessities. And here we are pushing our politicians to concern themselves with the merger of a luxury service.

Something is wrong with this picture.

I think the simple fact the NAB has such strong opinions clearly shows that these services are considered our competition. I haven't heard anything about the NAB protesting other business mergers. Why

might that be?

Based on the fact that they are clearly our competition, I think that negates the whole "monopoly" argument. Again, and as Radio World has supported for years, maybe the simple answer is we should concern ourselves more with being a local viable service than a "music jukebox."

I have been in TV since I was 12, and started in radio at 16. I'm a pretty diehard radio and TV guy, but let's look at competition as a way to improve our product and not try to shut down every new type of competition that comes our way, like NAB tried with LPFM.

Dan Slentz  
Zanesville, Ohio

### Rebuilding AM Spectrum

It's not only the poor AM receiving equipment or the poorly maintained AM equipment (from the mic to the transmitter) killing the band (Reader's Forum, Oct. 24); you also can add the programming.

When I tune through the AM broadcast frequencies, I hear mostly Christian, Spanish or sports programming. Not that there is anything wrong with those formats, as Seinfeld would say. If you are trying to rebuild the AM spectrum into a rated moneymaking venue, don't just revive the body, start with the head.

Jack Leverich  
St. Louis

## Corrections

Progressive Concepts was omitted from Radio World's 2008 Source Book & Directory. The listing should have been as follows:

### Progressive Concepts

305 South Bartlett Road  
Streamwood, IL 60107  
(630) 736-9822; Fax: (630) 736-0353

Web: [www.progressive-concepts.com](http://www.progressive-concepts.com)

Products & Services: FM broadcast equipment sales from microphones to antennas; service for most makes and models of FM transmitters and RF amplifiers.

If your company was omitted from our 2008 Source Book & Directory, please send the company contact information and a description of your products/services to [radioworld@imaspub.com](mailto:radioworld@imaspub.com).

★ ★ ★

Carl Lindemann's evaluation of the Marantz Professional PMD620 ("D&M Adds PMD620 to Field Recorder Line," Jan. 2) stated the unit has a memory capacity of 2 GB. The PMD620 has a memory capacity of 2 TB (2,048 GB).

# Radio World

Vol. 32, No. 3

February 1, 2008

Telephone: (703) 852-4600

Business Fax: (703) 852-4582

Editorial Fax: (703) 852-4585

E-mail: radioworld@nbmedia.com

Web site: www.radioworld.com

Next Issue of Radio World February 13, 2008

Next issue of Engineering Extra February 20, 2008

For address changes and subscription renewal, please visit [www.radioworld.com](http://www.radioworld.com) and click on "Subscribe to RW." To submit letters or story proposals, to request writer's guidelines, or for other editorial matters, e-mail the editor at [radioworld@nbmedia.com](mailto:radioworld@nbmedia.com).

## —EDITORIAL STAFF—

Paul J. McLane ..... Editor in Chief, U.S.  
 Leslie Stimson ..... News Editor/Wash. Bureau Chief  
 Kelly Brooks ..... Associate Editor, RW & Production Editor, RWE  
 Thomas R. McGinley ..... Technical Adviser  
 Michael LeClair ..... Technical Editor, RWE  
 John Bisset ..... Contributing Editor  
 Skip Pizzi ..... Contributing Editor  
 Marguerite Clark ..... Editor (International), Milan  
 Rogelio Ocampo ..... Latin America Editor in Chief  
 Karina Gerardi ..... Latin America Editor  
 Brett Moss ..... Managing Editor (International)  
 Brian Smith ..... Managing Editor, Web  
 Peter Finch ..... Editorial Assistant, Milan

## —EDITORIAL CONTRIBUTORS—

W.C. Alexander, Steve Callahan, James Careless, Harry Cole, Mark Durenberger, Charles Fitch, Ty Ford, Harold Hallikainen, Craig Johnston, Paul Kaminski, Peter King, Mark Lapidus, Daniel Mansergh, Sharon Rae Pettigrew, Carl Lindemann, Ted Nahil, Tom Osenkowsky, Ken Deusch, Rich Rarey, Tom Ray, Randy Stine, Richard Strickland, James G. Withers, Tom Vernon.

## —ADMINISTRATION & PRODUCTION—

John Casey ..... Publisher  
 T. Carter Ross ..... Editorial Director  
 Davis White ..... Production Director  
 Karen Lee ..... Production Publication Coordinator  
 Lori Richards ..... Ad Traffic Manager  
 Kwentin Keenan ..... Circulation Manager

## —CORPORATE—

### NewBay Media LLC

Steve Palm ..... President and CEO  
 Paul Mastronardi ..... Chief Financial Officer  
 Jack Liedke ..... Controller  
 Nancy Gregson ..... Marketing Director  
 Denise Robbins ..... Group Circulation Director  
 Joe Ferrick ..... Vice President of Web Development

### Market Groups

Carmel King ..... Executive Vice President, Video/Broadcast Group  
 Eric Trabb ..... Vice President / Sales Director, Video/Broadcast Group  
 Adam Goldstein ..... Vice President, Group Publishing Director  
 Pro Audio & Systems Division  
 John Pledger ..... Vice President, Group Publishing Director  
 Music Player Network  
 Jo-Ann McDevitt ..... Publisher, Technology & Learning

## —ADVERTISING SALES REPRESENTATIVES—

US East & Latin America: John Casey ..... 330-342-8361  
 Fax: 330-342-8362 ..... e-mail: [jcasey@nbmedia.com](mailto:jcasey@nbmedia.com)  
 US West & Canada: Dale Tucker ..... 916-721-3410  
 Fax: 916-729-0810 ..... e-mail: [dtucker@nbmedia.com](mailto:dtucker@nbmedia.com)  
 Classified & Product Showcase: Claudia Van Veen ..... 703-852-4611  
 Fax: 703-852-4583 ..... e-mail: [cvanveen@nbmedia.com](mailto:cvanveen@nbmedia.com)  
 Europe, Africa, Middle East: Raffaella Calabrese ..... +39-02-7030-0310  
 Fax: +39-02-7030-0211 ..... e-mail: [rcalabrese.imaspub@tin.it](mailto:rcalabrese.imaspub@tin.it)  
 Japan: Eiji Yoshikawa ..... +81-3-3327-5759  
 Fax: +81-3-3322-7933 ..... e-mail: [callem@world.odn.ne.jp](mailto:callem@world.odn.ne.jp)  
 Asia-Pacific: Wengong Wang ..... +86-755-5785161  
 Fax: +86-755-5785160 ..... e-mail: [wwg@imaschina.com](mailto:wwg@imaschina.com)

Radio World Founded by Stevan B. Dana

Radio World (ISSN: 0274-8541) is published bi-weekly with additional issues in February, April, June, August, October and December by NewBay Media, LLC, 5285 Shawnee Rd., Ste. 100, Alexandria, VA 22312-2334. Phone: (703) 852-4600, Fax: (703) 852-4582. Periodicals postage rates are paid at Falls Church, VA 22046 and additional mailing offices. POSTMASTER: Send address changes to Radio World, P.O. Box 282, Lowell, MA 01853. REPRINTS: For reprints call or write Caroline Freeland, 5285 Shawnee Rd., Ste. 100, Alexandria, VA 22312-2334; (703) 852-4600; Fax: (703) 852-4583, Copyright 2008 by NewBay Media, LLC. All rights reserved.

—Printed in the USA—



## FCC Should Not Require 24/7 Staffing

A memo to the FCC: Don't send radio back to 24/7 staffing requirements.

The agency is seeking public input on unattended operations in its high-profile broadcast proceedings on IBOC rules and localism. It is considering whether to reduce the number of hours a station may operate unattended, or even repeal the rule and require 24/7 staffing.

In 1987, the commission eliminated a rule requiring a station to originate the majority of its non-network programming from its main studio, citing advances in program production and distribution technology.

Eight years later, as the stability of station monitoring and transmission equipment improved, it authorized unattended technical operation and expanded the ability of facilities to control and monitor technical operations from remote locations.

The Emergency Alert System was designed with these unattended operations in mind. Yet the FCC has asked whether "widespread reliance on automated operations" limits the ability to distribute EAS alerts effectively.

A big reason the FCC raises this question is one incident: the often-cited accident in January 2002 when a train carrying anhydrous ammonia derailed in Minot, N.D. The spill created a toxic cloud that affected residents and was responsible for at least one death.

Clear Channel, owner of stations in the town, has been pilloried for its response. But as we have reported, the broadcast group says city officials didn't know how to use their EAS equipment to send an alert to the originating station, and had not installed it. EAS was not activated, and notification to citizens about the emergency did not happen as fast as it could have.

The stations were in fact staffed 24/7, according to the com-

pany. And Clear Channel engineers later helped local police install the EAS gear and trained city personnel in its use.

But no matter how many times the broadcaster has explained all this, some regulators and consumer groups have concluded unattended operations were to blame. It's easier to vilify a familiar big corporate target than to understand the truth.

Current rules provide broadcasters in all market sizes the flexibility to operate a portion of their broadcast hours in an unattended manner, allowing stations to serve listeners 24/7 for local news, weather, sports and entertainment programming.

A requirement of manned operation for nights and weekends likely would force some broadcasters, especially in small markets, to reduce service by cutting hours of operation. Certainly owners would be forced to pay additional costs to staff facilities nights and weekends.

One might like the idea of full-time staffing for other reasons, including quality of programming. After all, automated operation, for many people, is a symbol of what's wrong with radio today. That's a separate argument and it too has flaws, but it's not even relevant here. The question is not program content but emergency preparedness.

EAS gear instantly interrupts regular programming and relays each essential local EAS message to the local population without delay. Some broadcasters believe the system in fact is better than one involving humans, where delays might be created while local staff review EAS information, decide on an appropriate course of action, rewrite the information, record it and transmit the information over the air.

We urge the FCC to refrain from requiring 24/7 staffing and leave the current unattended operations rules in place.

— RW

## ◆ READER'S FORUM ◆

### Canaries in the Coal Mine

Paul, where is this guy broadcasting from, Mars? He does not wish to debate us Luddites ("Rational Discussion or Luddite Rants," Nov. 21) because he knows he'd lose.

I am one of those dreaded AM DXers and a ham, and hear the sideband hash on AM radio for hundreds of miles — yes *hundreds* of miles — every night. I am not alone, there are many of us; we are the canaries in the coal mine. Wait until and if the IBOC rollout on AM goes full swing, then he'll hear plenty of complaints.

I'm also a ham and had a little debate in one of my online ham clubs several months ago and an engineer claimed the same thing; know what? His station was running something like 13 watts at night, I forget the exact figure, but it was very low; my 1958 DX-100 puts out 6 times that power.

I nightly get severe sideband interference from WOR; WFAN; sometimes WGN (yes, WGN, which is close to 1,000 miles from Boston, where I live); WCBS; WBZ (of course); WTIC when it's on; WHAM; WPHT; WRNI; WDCD; and others depending on propagation.

I'm not saying every one of those stations is a complete buzz saw every night, but on any given night a good four or five ruin my reception on the adjacent frequencies.

For example, I like WSM 650 Nashville, which comes in here very well most nights, and because I have the equipment I can phase out *some* of WFAN's noise but not all; it makes listening unpleasant and I don't listen anymore for the most part.

Now if I can't receive it with my

sophisticated equipment, how about Joe Schmoe in his car? Formerly it was entirely listenable in a car; now forget it.

That is just one example; many people at this point probably chalk it up to lousy radios, noise, whatever; wait until they find out it is radio itself causing this noise. Is Ibiqity afraid? Hmm, maybe that's the reason for the slow rollout, whaddya think, Paul?

Bob Young, KB1OKL  
 Millbury, Mass.

### Skywave Listening

I, too, grew up listening to the 50 kW blowtorches such as WKBW, WABC, WLS, etc., to get my rock-and-roll fixes ("Is AM Skywave Broadcasting Finished?," Nov. 21). However, the only skywave station I listen to anymore is CHWO.

I sometimes get the full CBS news from WBBM and, if I liked country music, I'd probably tune in WSM. (I do actually like it to a point, and had the pleasure of seeing a live Grand Ol' Opry broadcast from the Ryman Auditorium last fall.) Otherwise, there's not much worth listening to on the clear-channel stations.

I live about 60 miles southeast of Pittsburgh, and used to catch the more local news and weather from KDKA on 1020. Now, WBZ's IBOC lower sideband totally obliterates KDKA all night and at least two hours before sunset and after sunrise.

I still tune around the AM band hoping that there might be something interesting on other than talk, usually to no avail. During these excursions, I have noticed IBOC hash on many of the clear-channel

stations from their neighbors on the dial.

The interference is not usually more than annoying; however, if a station which I was really interested in listening to (such as KDKA) was affected, I'd be a bit ticked off.

There were several nights (before nighttime IBOC) when WCKY "accidentally" left its IBOC on and clobbered WKBW when it was running its classic WKBW programming a few years ago (I'll never understand why "KB" went back to talk; it brought a smile to a huge audience). I'm just keeping my fingers crossed that WSB doesn't start cranking out IBOC, causing interference to CHWO.

I really don't know how many people actually listen to AM skywave anymore; certainly not nearly as many as in our younger days. I also doubt that the thrill of DXing holds the mystique that it once had. So, is there any reason to actually care about IBOC interference? It bothers me, even though the programming isn't there to make me care.

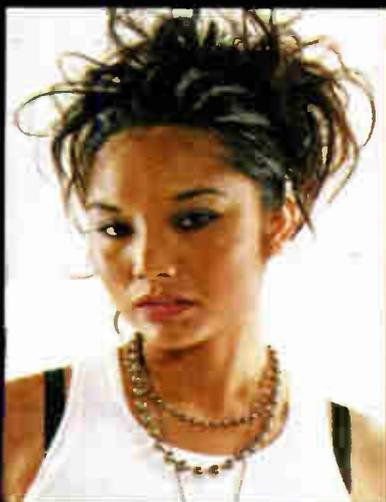
Furthermore, I just turned 60 and, like many who grew up on AM radio, we are all out of Arbitron's preferred demographics, so station owners could most likely care less whether we listen to their station or not.

Finally, CHWO seems to thrive on personality/music programming and always mentions calls from listeners all over the east coast *and* takes pride in doing so. Why can't more stations do this? Probably a rhetorical question ... it would take hard work to convince advertising clients that it's worth their dollar, i.e., a sales staff that can sell anything to anybody.

Thanks for the soapbox.

Howard Reynolds, WA3EOQ  
 Bittinger, Md.

# QUESTION:



*Would you process all these different voices the exact same way? Of COURSE Not!*

The new **VORSIS M-1 Digital Microphone Processor** is individually designed for ALL of your on-air talent at truly affordable prices. Only with the VORSIS M-1 do you get individual presets, fully adjustable compression and expansion, multi-band EQ (either pre or post dynamics), high and low pass filters, de-esser, and built-in phantom power. And all of it available via our easy-access graphic interface. **The M-1 Digital Mic Processor**—*a new level in voice management.*

*REDEFINING Digital  
Audio Processing*

**VORSIS**®



## ***Don't Just Bring Your HD Channel Along for the Ride***

The VORSIS AP-1000 has a completely separate fine grained processor dedicated just to HD, so you can tweak your HD sound to deal with bit reduced audio while leaving your FM sound uncompromised.

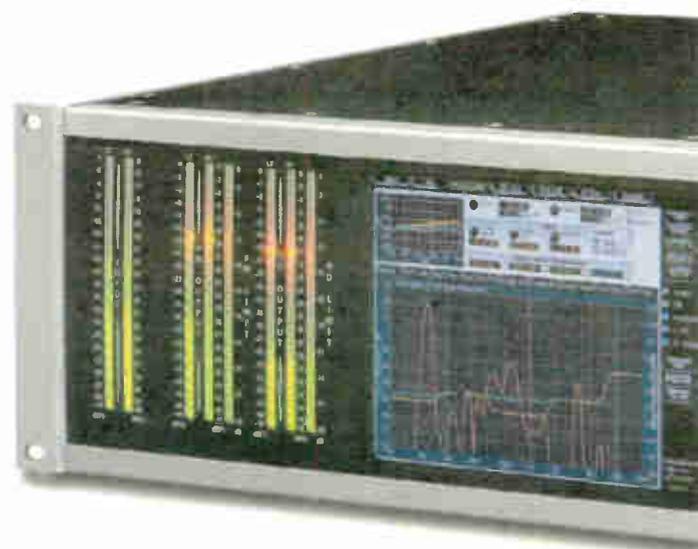
***Here's what professionals who've tried the AP-1000 have to say:***

*"By far the best processor I've ever used."*

*"It achieved greater loudness with a smoother sound right out of the box."*

*"Your GUI is so well designed I didn't even need to read the manual to get started."*

*"Love the box!!! The sound of the station is vastly improved...it's loud, wide and clear."*



***REDEFINING Digital  
Audio Processing***

**VORSIS®**