CAN RADIO SHED ITS LEAD BOOTS? Page 10

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Beyond ConDep
What public radio engineers have been talking about this year.
Page 3

Radio for the Desi Community
A tech entrepreneur sees a big potential market as well as a multicast syndication opportunity.
Page 36

Radio World

$2.50 The Newspaper for Radio Managers and Engineers June 18, 2008

Reading Service Imperiled In Oregon

IAAIS Worries About A Precedent

by Leslie Stimson

The International Association of Audio Information Services is looking for another broadcaster to distribute reading services in Oregon.

That's in the wake of a decision by gon Public Broadcasting to turn its reading service, a victim of t budgets and the DTV transition. our OPB employees, including full-timers, lost their jobs as a lt.

ome of the reading service staff volunteers will continue to pro- e the service in space provided by state agency for the blind, accord- to IAAIS, which added it's nown whether the new space will short- or long-term solution.

he IAAIS sees OPB's decision as urbing and hopes it's not a trend.

It's worrisome because it sets a edent," said Heather Lusignan, nediate past president of IAAIS. ding service organizers say the B decision ignores the needs of r, visually-impaired, less technol- -literate people.

PB covers the state with 115 o channels, a mixture of analog -service TV and translators, DTV, TV and cable channels. The DTV HDTV channels are in Portland, vallis, Eugene, Bend and La nde.

OPB also has seven AM and 27 FM frequencies, according to its Web site.

In reviewing its options, OPB said

See READING, page 5 ▶

NewBay Media
Take a video tour of the "Cool Stuff" winners with CoolCast demos at radioworld.com.

© Keith Webber Jr./iStockphoto.com

NEWS ANALYSIS

SBE Hands Off NFL Coordination

The Society and the Football League Will Alter Their Frequency Coordination Arrangement

by Randy J. Stine

INDIANAPOLIS Critics of the Society of Broadcast Engineers' NFL Game Day Coordination Program appear satisfied with changes that will do away with its voluntary nature.

After the coming season, the National Football League will hire its game day coordinators, following a decade in which those services were provided through the auspices of the SBE.

See FREQUENCY page 16 ▶

Casey Knoettgen preps for Super Bowl XXXV in Tampa in 2001.

World Radio History

NEWSWATCH

IBIQUITY CHIPSETS: Samsung and SiPort are shipping lower-cost and less power-hungry HD-R chipsets to receiver makers, Ibiquity said. The Samsung chipset features conditional access, store & replay and traffic & navigation abilities. SiPort's single chip has been designed for low-power, high-performance portables outside of the automotive market, such as portable GPS devices. TSMC is fabricating the chipset. Sanyo is shipping a single-chip digital radio tuner/digital signal processor.

U.S. ELECTRONICS submitted to the Federal Communications Commission an open-source proposal. A merged XM/Sirius, it said, should be obliged to let consumers choose whatever device they want to connect to satellite networks. The proposal would open access to retail and auto markets to receiver makers, allowing them access to technical requirements, specs and chipsets to produce radios. It also called for the FCC to block the company from controlling the price of receivers and from entering into exclusive agreements by barring its involvement in the manufacture and sales of satellite radio devices.

XM needed $120 million in financing to fulfill contract obligations to Major League Baseball. It said in a filing with the Securities and Exchange Commission that there could be an effect on its financial position if it couldn't find the financing.

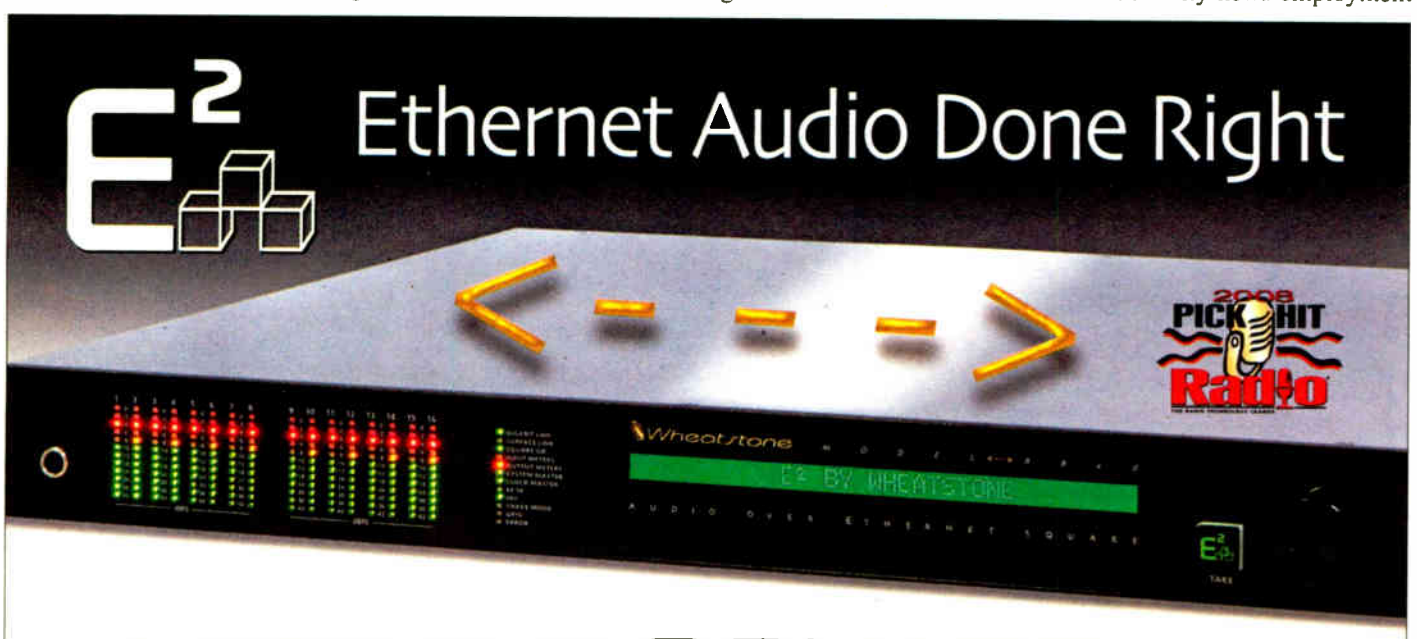
MMTC on EEO: Gathering specific EEO data from broadcasters will lead to better commission policy and enforcement, says the Minority Media & Telecommunications Council, which calls FCC enforcement "a stunning failure." David Honig and Joycelyn James refer to a "collapse" of EEO in radio news in which most recruitment is still done by word of mouth. "In 1995, RTNDA reported that minorities were 14.7 percent of radio news employees, but that number actually had declined to 6.2 percent by 2006." it said minority news employment at non-minority-owned, English-language stations is statistically zero — about where it was in 1950." MMTC urged the commission to reinitiate collecting EEO race and gender data and set a date by which broadcasters must release annual employment reports.

POSTING SETTLED? The Radio Advertising Bureau board passed a resolution on selling and schedule verification. "Posting" will enhance radio's accountability to its clients, supporters say. The board hopes its recommended practices will put to rest a debate over posting in radio and instead focus "on delivering an outline for sound business principles and practices that will benefit radio's standing in the media space."

SIRIUS will have to reapply if it wants to put up its FM-6 satellite. The FCC has rejected its application to launch and operate the satellite, which is intended to help Sirius reduce the number of birds in its network. The commission said the application was defective and essentially invited the company to reapply.

MEXICO's communications regulator is authorizing stations near the U.S. border to use HD Radio as their digital radio technology on a voluntary basis. In its decision, Mexico's Federal Telecommunications Commission said applicants who wish to transmit digitally with HD Radio must deliver both an analog and digital signal and submit quarterly reports of the station operation for at least two years once they begin IBOC operation.

PUBLIC NOTICE: The FCC will now post topics to be voted on at its monthly open meeting three weeks in advance. Chairman Kevin Martin made the announcement. The idea is to make the agency's processes more transparent. Other commissioners and industry observers had complained of an opaque voting process, and a congressional committee is probing commission's processes. The agency has been issuing a notice of its agenda one week before a monthly meeting. It will still do so and now also list items slated for a vote on its Web site.



MEET THE SQUARE

The Wheatstone E² (E SQUARE) gives you the convenience of Ethernet audio without all the IP hassle. It just *knows*. The built-in Setup Wizard lets you configure an entire system with just your browser and a laptop. Unplug it when you're done and there's no PC between you and system reliability.

SQUAREs are totally scalable: use one as a standalone 8x8 studio or transmitter site router, with browser access from anywhere. Plug two together and have a standalone digital snake. Add a fanfree mix engine and build yourself a studio using analog and digital I/O SQUAREs.

All the power is *in* the SQUARE. Distributed intelligence replicates all configuration data to every unit. Profanity delay and silence detection are done *in* the SQUARE. Even virtual mixing (w/automation protocol) — it's *in* there; all with real front panel meters, 32 character status indicators and SNMP capability.

88D I/O: 8 digital inputs and outputs. You can headphone monitor and meter any of the SQUARE's inputs or outputs in real time. The 32 character display gives you all the information you need about your audio and system configuration. And because you can operate in either 8-channel stereo or 16-channel mono mode, 16 channels of metering are provided.

88E DIGITAL ENGINE: Just plug an E-SERIES control surface or GLASS E computer interface into this engine and get all the mixes, mic and signal processing you need. Fanfree, so it can stay in the studio where it belongs.

88A I/O: 8 analog inputs and outputs. You can bring a new SQUARE up in seconds and of course use the front panel encoder for your X-Y control. Front panel status LEDs give you continuous link, status, and bit rate information as well as confirmation of any GPIO activation.

88AD I/O: 4 analog plus 4 digital inputs and outputs—perfect for small studios or standalone routing.

88 I/O CONNECTIONS: E² has both DB-25s for punchblock interface and RJ-45s for point-to-point interface. All SQUAREs have 12 individually configurable opto-isolated logic ports that can be either inputs or outputs.

Because the E² system doesn't rely on a third party GUI, tech support is straightforward (and 24/7). Likewise, system operation doesn't require external PCs for continued full functionality. Best of all, 1 Gigabyte protocol eliminates the latency and channel capacity restrictions associated with older technology.

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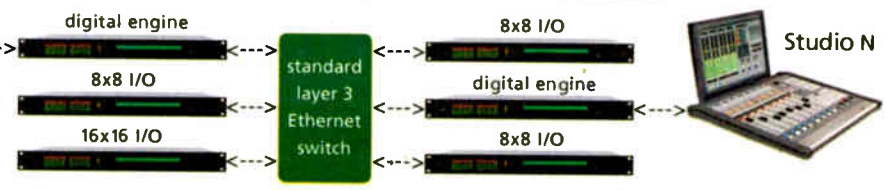

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World Radio History

Digital Integrity Is Focus of PREC

Public Engineers Go Beyond Traditional Topics; Also Explore Coverage, Workflows, IT Security

by Leslie Stimson

LAS VEGAS This spring marked the eighth Public Radio Engineering Conference and the second presented jointly by NPR Labs and the Association of Public Radio Engineers.

APRE hopes to incorporate formally this year. Its bylaws committee has completed a draft document on which the founding board will vote. Once bylaws are approved APRE can begin the incorporation process.

There are some 800 LPFMs on the air now, according to the FCC.

In comments to the FCC this spring, NPR said some 9 million listeners receive tor services.

A compromise reached as a result of the talks reportedly would limit the number of translators an entity could own that could be protected against encroachment from new LPs promising to originate at least eight hours of daily local programming.

Photo by Leslie Stimson

From left: Ralph Hogan, DOE of Phoenix, Ariz.-based KJZZ(FM), KBAQ(FM) and Sun Sounds of Arizona/APRE chair; NABEF Connections Mentoring Fellow Nandini Sen, director of engineering & technologies for North Carolina Public Radio; Dan Mansergh, DOE of KQED(FM), San Francisco/APRE vice-chair (rear); PREC scholarship recipient Steve Gallagher, broadcast technician at New Hampshire Public Radio; and Rich Parker, DOE of Vermont Public Radio and chair of the APRE Scholarship Committee.

NPR LABS LOOKS AT IBOC COVERAGE SHORTFALL

NPR Labs has developed a computer-generated coverage prediction model for HD Radio which it used to study the shortfall in IBOC coverage vs. FM analog coverage.

It also used the model to predict interference from stations transmitting IBOC signals to adjacent analog neighbors. The report has been delivered to CPB.

The findings are important as the industry debates whether to push for FCC approval of elevated FM IBOC power. Overall, they show the best IBOC coverage in cars vs. a dramatic drop-off in digital coverage for home receivers.

While a power increase would benefit home listening, the resulting increased interference would likely hurt mobile coverage, senior technologist John Kean said in a subsequent interview. Any power increase would need to be done with care, he said, noting that NPR hasn't taken a position on the elevated power issue.

Radio World will report on Kean's findings in more detail next issue.

NPR SEEKS TRANSLATOR SHIELD IF LPFM EXPANDS

Some familiar senators are among those supporting a bill to drop third-adjacent channel protections for full-service FMs in order to create space for more low-power FMs.

S.1675 has the support of Sens. John McCain, R-Ariz., Hillary Clinton, D-N.Y. and Barack Obama, D-Ill. No floor vote was slated as of early June.

NPR is concerned about the possible disruption to noncom translators if more LPFMs are authorized. Its studies show the majority of new LPFMs would most likely be allocated in the non-reserved band.

their local public radio stations via translator service.

We've reported the commission has proposed giving LPFMs priority over translators in applications for new frequencies. LPFMs currently are licensed as secondary services but its advocates say stations are tired of being at risk of having to move or go off the air when a full-service station wants to increase power or move.

NPR opposes the change in status.

"It may be one thing to 'squeeze in' secondary low-power facilities into a mature broadcast service," the organization wrote, "[but] it is quite another to reverse decades of commission policy and rules favoring higher-powered broadcast facilities by elevating LPFM stations to co-equal status with full-power stations.

"The laws of physics have not changed, and a system of full-power broadcast stations serves many more listeners with less interference compared to low-power broadcasting," NPR wrote.

During the PREC meeting, Mike Starling, NPR Labs executive director and NPR's vice president and chief technology officer, said NPR and low-power advocate Prometheus Radio Project have been in discussions over interference protections as well as protection for translators.

NPR said that, due to receiver vulnerabilities, regulators should continue the prohibition against new LPFMs third-adjacent to stations carrying radio reading services. NPR felt it is better to negotiate safeguards to make sure protections are in place for public radio stations than not to negotiate at all.

BUILDING GREEN CAN SAVE YOU MONEY

Building a facility "green" is not only good for the planet, it's good for business.

That's according to Peter Bloomfield and Mark Motl of Bloomfield & Associates, a Philadelphia-based architectural firm that specializes in broadcast facilities.

When considering a big facility move, think of the broadcast engineering requirements, they suggested.

At Entercom in Madison, Wis., a new facility was built "green" and located near public transportation.

Among their suggestions:

• *Consider adapting an existing building.* For example, Entercom in Kansas City renovated the top two floors of a

See APRE, page 6 ▶

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World Radio History

Our Digital Edition Is Now More Powerful

Radio World offers superb content in so many formats and channels that I'd like to take a moment to make sure you're aware of all of the opportunities available to you.

I hope you'll use them all, but even if you don't, it's good to know what's available and to share the word with others.

Most important, we've recently updated the format of our digital edition, making it a much more powerful offering.

Radio World Digital Edition, now upgraded — Readers can choose to receive the digital edition of RW and RW Engineering Extra instead of a print copy; this is a service we started offering a while back.

However, we recently have upgraded our provider to Nxtbook Media, making the experience much more enjoyable.

Now you can download each issue to your desktop or laptop. You can bookmark stories for future reference; you can print one or multiple pages easily.

Greatly enhancing the experience, *you can send a particular page or the entire issue to a friend,* something many readers have requested.

The thumbnail view lets you move around an entire issue quickly. It's also easier to zoom, scroll, turn pages and search.

You can view one or two pages at a time. You can add "page notes" for your own future reference. There's a convenient contents page.

Permalinks allow you to copy and paste links easily from relevant pages of content to blogs or forums. You can add a page to your browser favorites or post one to del.icio.us or Digg.

You can search an entire issue for a keyword — and you can search recent *past* issues. So if you think you remember seeing an item of interest but can't recall when, now you can find it more quickly.

Full-screen mode makes it easier to read each issue. There's also a "magnify" window that lets you read us more efficiently.

Our advertisers now can conduct polls, surveys or giveaways from within their advertisements.

Also starting now, the digital edition icon on our home page will take you to the *current* issue, effective on that issue's cover date, whether you are a subscriber or not. So anyone can see the full contents of our current edition.

If you are curious about Radio World's digital edition but unsure how to take full advantage of it, click on the digital edition logo at the upper left of our home page at *radioworld.com* and spend a couple of minutes perusing under the Help tab or watching the useful tutorial.

This logo on our Web site now takes you to the current Radio World in digital edition form.

If you prefer print, just keep on doin' what you're doin'. However a growing number of readers enjoy RW digitally. You can choose to be one of them. Change your subscription from print to digital delivery by filling out the form at *www.myrwmag.com.*

Radio World Newsbytes — We publish a weekly roundup of news of interest to the U.S. radio community, with an emphasis on top news, technology, regulation and people. We cover business, products, Who's Buying What, programming and other topics as well.

It's a handy roundup of news briefs, delivered Friday mornings, to help you keep an eye on the industry's technical leaders and suppliers as well as headlines about big companies, the FCC and the NAB.

I compile Newsbytes, using material by me, Leslie Stimson, Kelly M. Brooks, T. Carter Ross and Marguerite Clark.

Delivery is via e-mail. Sign up at *radioworld.com/subscribe/.*

The Leslie Report — Twice each month, Radio World News Editor and Washington Bureau Chief Leslie Stimson provides an inside look at radio technology and other news. She also welcomes your news tips and ideas. Sign up at our Web site; and send her story ideas at *Lstimson@nbmedia.com.*

Also during the course of the year, Radio World will send our online subscribers news about major conventions (such as Sneak Peek e-mails prior to NAB conventions) and other notable events. At any time, you can unsubscribe by following the directions in those e-mails. These newsletters are in addition to your print or digital subscription to RW, with its many supplements, Source Books and other resources throughout the year.

Still want more? Our parent company NewBay Media also offers quite a few electronic newsletters that will be of interest to broadcasters, musicians, systems integrators and educators. You can see the entire selection at *www.nbmedia.com*; click on the e-Newsletters button.

Let me know what you think about any of our print or electronic editions. Write to me at *pmclane@nbmedia.com.*

★ ★ ★

From the Editor

Paul J. McLane

I'm a Yankee from way back; but even this transplanted northerner knows there's plenty of beautiful country and history in the Blue Ridge of Virginia.

Come July, there will be broadcast equipment to see as well. The Broadcasters General Store Roanoke Expo is set for Thursday July 17, and it's a free event.

Roanoke is in the western part of the state; as local businesses like to say, it's within a day's drive of half the nation's population.

If you're an experienced hand at regional trade shows, you'll know what I mean when I say this is "Cindy's latest event." Cindy Edwards, a regional account representative for BGS, is the organizer; she has put together a number of these shows in the southeastern United States over the years, though this is her first in a while.

SBE Chapter 78 is co-sponsoring and expects this will be the largest trade show of its kind in that region in more than a decade.

Approximately 50 manufacturers will exhibit, with a number of talks for radio, TV and management attendees, plus remarks by Barry Thomas, president of the SBE.

Free breakfast and lunch will be served (thus assuring a good turnout even without the booths and panels, if I know anything).

Among the presenters are *Workbench* author John Bisset of Broadcast Electronics, who will talk on "getting that raise," Jerry Massey of Entercom on HD

See MCLANE, page 5 ▶

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World Radio History

Reading

▶ Continued from page 1

it became clear the broadcaster can provide a greater public service by promoting the services of organizations already serving the blind and visually impaired. It intends to launch such a cross-platform campaign this fall.

Reading services provide audio programming for the visually impaired and other targeted audiences, who typically receive the audio on specialized receivers.

OPB moved its Golden Hours reading service, which had been launched in 1975 on KOPB(FM)'s subcarrier, to the SAP channel of its TV station in 1997. OPB also streamed the reading service online.

Demise of SAP

Last year, KOPB(FM) in Portland had turned on the state's first HD3 channel with a modified version of OPB's radio reading service at 15 kbps bandwidth. This was the first time the reading service had been carried via a radio station signal in the state since 1997.

Yet now the broadcaster has decided to stop airing all versions of the service — SAP, HD Radio and online.

It's worrisome because it sets a precedent.

— Heather Lusignan

OPB's HD3 channel now carries interim programming; plans for that channel have not been determined, a spokeswoman told Radio World.

In a statement, OPB said the decision to end the reading service was difficult and came after months of research and discussions with groups serving the blind and visually impaired.

One of the challenges OPB identified was the demise of SAP channels as part of television's digital transition. OPB said once TV goes digital it will have no "feasible" way to deliver the service following the end of analog broadcasting.

But OPB also cited the difficulty in identifying "any significant user base" for the reading service, the cost of producing content and lack of any "viable revenue sources" to support it. OPB spent some $150,000 a year to run the reading service.

The IAAIS said a survey by the state of Oregon in 2006 shows an estimated 250,000 residents aged 45+ could benefit from a reading service.

When asked, the broadcaster did not elaborate on why it made this decision several months before the February 2009 DTV analog cut-off date.

Two full- and two part-time employees lost their jobs when the reading service was eliminated, the broadcaster confirmed. OPB has 170–180 employees overall.

Compared to 30 years ago, there are more options now for the visually impaired to get their news, according to OPB. The Talking Book and Braille Library is one option; patrons can go to the library or have material sent to them.

Another option is the Newsline run by the National Federation for the Blind (*www.nfb.org/nfb/Newspapers_by_Phone.asp*). With a touch tone telephone, users can have stories from several newspapers and magazines read to them. The nationwide service can be accessed from wherever the user is.

"This service suits a person who has an active lifestyle," said Scott White, director of Sponsored Technology Programs for the NFB.

Both the library and Newsline service are free to the visually impaired.

However, the IAAIS says people with age-related macular degeneration, the leading cause of blindness in older people, are 12 times more likely to have problems using a telephone compared to visually unimpaired elderly people.

Internet streaming and podcasting have made audio more readily available to the public. But IAAIS says not everyone has access to a computer or the Internet; further, a typical reading service user grew up using newspapers, magazines and books and may not relate to the Internet, synthetic speech or iPods.

The IAAIS is still pursuing a broadcast outlet for reading services in Oregon and has formed a task force to accomplish this goal.

Recognition

Lusignan of VoicePrint, a division of Canada's National Broadcast Reading Service, and Bill Pasco of Sun Sounds of Arizona co-chair the task force.

"We've been fighting for recognition in the digital realm," said Lusignan. Both the SAP channels for TV and FM subcarriers are lost in the digital transition, though the digital television technology standard does include audio channels.

As for a replacement technology when SAP goes away, Rocky Mountain PBS/Audio Information Network of Colorado are developing a digital television audio receiver for reading services for blind and visually impaired users who used to listen on analog SAP with a target year-end shipping date, according to IAAIS.

Also, the WGBH Media Access Group tested two of the National Telecommunications and Information Administration-certified coupon eligible converter boxes and determined that two brand-name boxes pass through video description and can access alternate audio channels without having to go through the set-up menus that people with vision impairments find difficult or impossible to use, according to the IAAIS.

For radio, the IAAIS has worked with Ibiquity for years on inclusion in the IBOC receiver chip. At the 2008 NAB Show, NDS said its conditional access technology, which will include radio reading service capability, would be in new IBOC chips expected to be available to receiver manufacturers later this year.

In May, Samsung said it expects to release its new HD-R chip to device makers in August.

Conceivably, the capability would be in new HD Radios by year-end.

"Radio reading services fulfill a unique news and information gap for their target audience — full-text readings of national, regional and locally published print media," said Pasco.

"How much longer will it take the broadcast industry and the FCC to recognize, one, that this audio information programming is vital to the day-to-day news/information needs of the burgeoning number of American consumers with limited or no access to print; and two, that accessible digital technology now is readily achievable with minimal cost at the manufacturing stage and should be the norm in broadcasting?"

Lusignan stepped down in May after finishing a second two-year term as president. Kim Walsh of the Detroit Radio Information Service was elected as the president of IAAIS at the organization's annual convention.

This Is One Radio Audience That's Growing

Nationally, there are more than 100 reading services, according to the IAAIS, although that figure is an estimate because services are organized differently state by state.

Most eastern states are home to several individual stations; most western states have either single-source statewide services, as in Oregon, or hybrids like Sun Sounds of Arizona.

"We are statewide, but we operate as a network with local affiliate stations in Tucson, Flagstaff and Yuma, which announce their own local newspapers, grocery and shopping information," said Bill Pasco of Sun Sounds.

"Then they connect to our Tempe network head via satellite for all the regional, national and international material. This keeps the service local while allowing for economy of scale. So, Sun Sounds is counted as one organization, but is actually four reading services."

While the number of reading service stations has remained fairly static in the United States, listenership has steadily risen as boomers retire and age.

Incidence of blindness is rising sharply among boomers despite some of the advances in eye care, said Pasco.

The IAAIS estimates the U.S. radio reading audience at roughly 2 million people. Other estimates point to a potential audience of some 10 million, he said.

— *Leslie Stimson*

McLane

▶ Continued from page 4

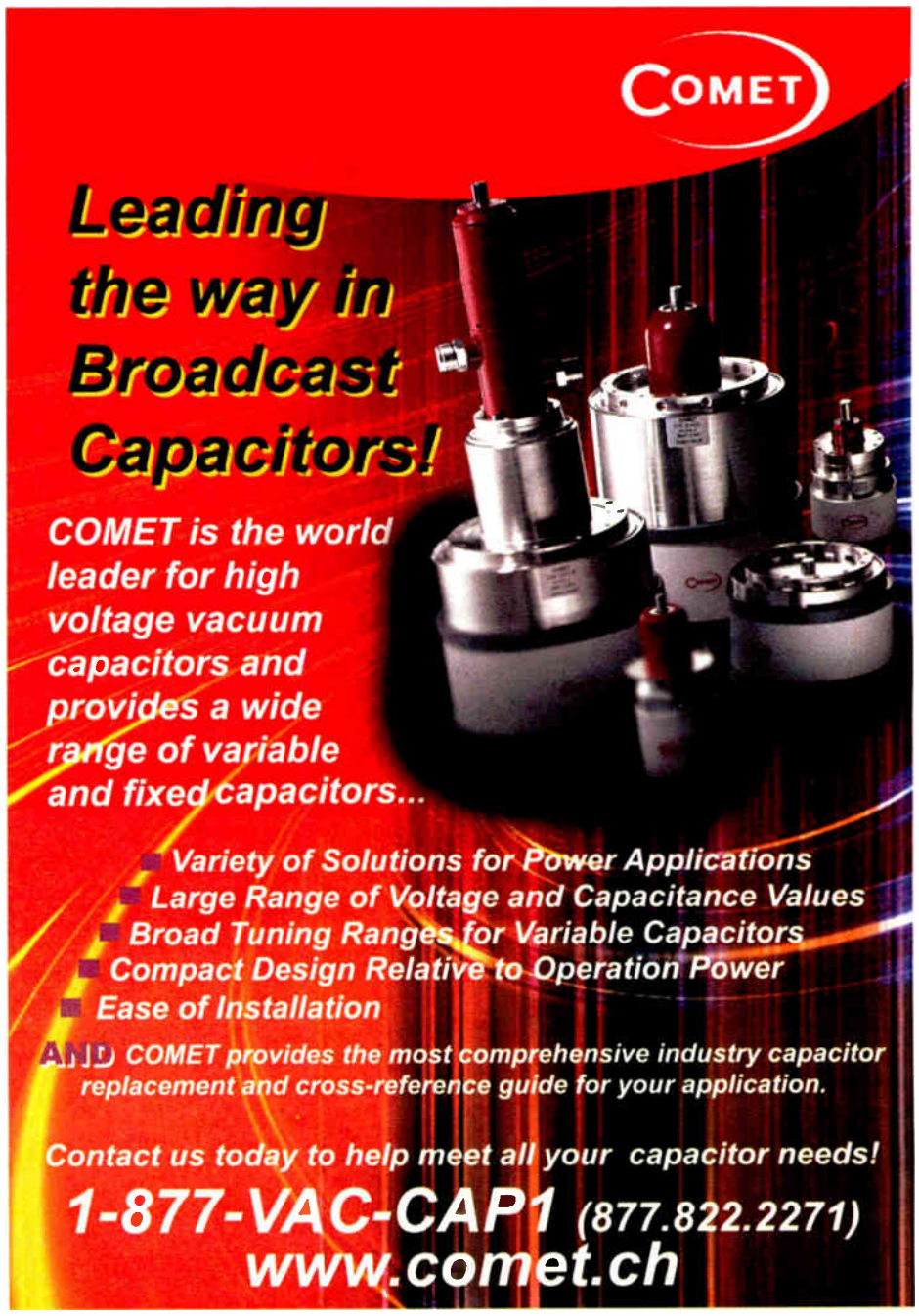
Radio, and Darryl Parker of TFT and Bruce Robertson of Digital Alert Systems on EAS.

The expo includes a Livewire University, with several manufacturers speaking including Radio Systems, AudioScience and 25-Seven Systems.

The show is at the Roanoke Convention Center; register at *www.bgs.cc*.

While you're in the area, don't leave without looking around a bit. There's a great deal to do. Make time to learn about railroad history at the Virginia Museum of Transportation, visit the nearby National D-Day Memorial or do a tasting at one of Virginia's proliferating wineries (try the Viognier).

Many more ideas at *www.visitroanokeva.com*.



World Radio History

APRE

▶ Continued from page 3

building for studios and leased out the bottom floors to tenants.

• *Consider easy access to amenities*: CBS Radio in Baltimore located amenities such as food in its new building to help employees cut down on driving.

• *Develop effective use of space*: Chancellor Media in Cincinnati planned studios and offices around a core, ending up with less space to cool and heat.

The Bloomfield pair also suggested installing LED light fixtures, especially in lobbies that are lit 24/7 and reusing old furniture by repainting or reupholstering to save money.

ONGOING PLANT, IT SECURITY IS VITAL

The main principles of IT physical plant security are confidentiality, integrity and ability.

It doesn't help to have your backup media in the next room if there's a fire.

— Rich Parker, DOE VPR

A facilitiy's security should have several layers of redundancy, according to Vermont Public Radio DOE Rich Parker.

Engineers need to be aware of threats from outside, and within, their buildings.

Critical circuit paths, combinations, keys and passwords and credit card data are examples of confidential information that must be protected. Using a password that is available only to certain people helps; but protection of those passwords must be vigilant, he said.

He pointed to an example of loss of integrity for a TV station to illustrate the seriousness of securing an air signal.

In 1987, a TV pirate sporting a Max Headroom mask broke into the broadcast of a "Dr. Who" episode on WTTW(TV), Chicago. The hacker was able to disrupt the air signal for about two minutes and was never caught.

Assess what you're trying to protect: the air product, tower, studio, emergency information and computers in offices and studios. Protect data with firewalls, virus scanning and e-mail restrictions. Remember back-up data, he recommends.

Also provide ways to maintain and restore information system integrity with alternate servers, back-up studios and transmitter sites and secondary power feeds.

"There is a link between physical security and cyber security. It doesn't help to have your backup media in the next room if there's a fire," said Parker.

"Are users bypassing your defenses?" he continued. Peer-to-peer file-sharing, unknown WiFi addresses, USB drives, iPods, IM and VoIP programs provide pathways into your networked computer systems for viruses, Trojan horses and malware.

Discuss security needs with employees. Educate them about the risks, and provide security tools and workarounds, Parker said.

Web sites for online security include *www.cert.org, www.sans.org/whatworks* and *www.infraguard.net.*

JACOBS MEDIA: HD-R AWARENESS DROPS

Jacobs Media doesn't see the "HD Radio awareness" needle moving since last year.

As part of its Tech Poll IV, the rock consultancy asked rock format listeners about barriers to purchasing an HD Radio. Some 40 percent of respondents "don't know enough about it" and 37 percent said the "radios are too expensive."

Speaking to public radio engineers about the findings, General Manager Paul Jacobs said there's a lot of confusion about HD Radio. Familiarity with HD Radio dropped from some 70 percent in 2007 to 60-some percent in 2008, according to the findings.

What are barriers to purchase? Respondents told Jacobs Media they hadn't heard enough about HD-R, they didn't know where to buy a radio and didn't know anyone who has one.

Jacobs said stations need to invest more effort in multicast formats that will differentiate their station and create word of mouth. That in turn may help move HD Radios.

Another suggestion to raise awareness from Jacobs Media is to place HD-R kiosks in malls to help consumers hear the extra channels on various HD Radio receivers.

NEWS ROUNDUP

CHUCK LEAVENS, DOE/Director of IT Management of WDUQ(FM), Pittsburgh, is the 2008 Engineering Achievement Award winner from APRE, named so by his peers.

Leavens has moderated and maintained the PubTech listserv for 12 years.

"In the beginning, there was pushback from managers — 'We don't want this

See APRE, page 12 ▶

World Radio History

*Above: Rays broadcasters **Andy Freed** (left) and **Dave Wills** (right) interview Rays' star third base prospect **Evan Langoria** on the "The Hot Stove Radio Show."*

*Top: **Larry McCabe**, Tampa Bay Rays Senior Director of Broadcasting and **Rich Herrera**, broadcaster and Director of Radio Operations are shown on the field during spring training.*

Impossible Remote?
Nah...You've Got ACCESS!

Tampa Bay Rays' Real-World Super Hero Saves the Day!

Fans of the Tampa Bay Rays baseball team are intimately familiar with Dave Wills and Andy Freed, play-by-play announcers and hosts of "The Hot Stove Radio Show." Offering the inside track on all things Rays, the show kicked off its 2008 season with the "Countdown to Opening Day" series. While at a remote from a well-known sports bar, ACCESS showed its true worth. Two minutes before the broadcast, the ISDN line that was supposed to be used for the broadcast failed to connect. Luckily, they had the ACCESS running on Wi-Fi provided by the restaurant. The broadcast got on the air and was flawless for the entire one hour show.

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.

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World Radio History

Workbench

John Bisset SBE Educator of the Year

Radio World, June 18, 2008

Past columns are archived at *radioworld.com*

Pollen Chokes a Transmitter Site

by John Bisset

Spring pollen and ragweed season were particularly rough this year, according to Harry Bingaman, engineering manager for Sudbury Broadcasting in Sunbury, Pa.

Harry says he'd never seen it so bad. Check out Figs. 1 and 2: the second image shows the accumulation of just two days. That's not dryer lint!

Harry made window screen covers last year and placed them on the outside of the fresh air intake vents at his sites. The screens kept most of this gunk out of his transmitters. Pleated filters on the transmitters also work overtime in such conditions.

Yes, these screens must be cleaned, so we're adding yet another recurring chore to our to-do list. But we want to keep this stuff out of the building.

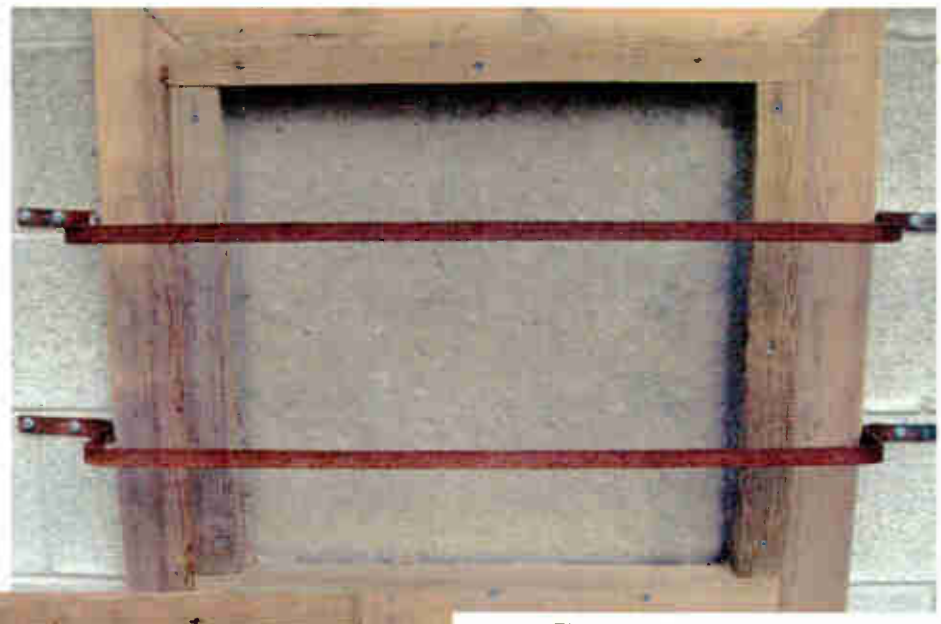

Fig. 1: Pollen covers an air intake screen.

Fig. 2: Just two days of pollen left this layer, shown partially peeled away.

Fig. 3: A rock holds the capacitor stable.

Harry also made brackets to support a standard furnace filter on the inside; it works as a secondary catch for finer material.

Reach Harry Bingaman at *kc3qhlmb@aol.com.*

★ ★ ★

Bill Whitt works for KBLN(TV) in Grants Pass, Ore., a publicly supported TV operation with about 17 transmit locations.

He started his career as an electronics technician in the Navy, then moved to a variety of manufacturing jobs. Along the way, Bill discovered a neat source for tools and shares it with *Workbench* readers.

He says *www.nationalonlinetools.com* will keep you busy for hours. They sell nearly every type of tool made, all at discount prices.

For example, you can buy a Raytek 0-500 degree digital thermometer gun — with a laser sight — for under $50. Or here's something new: a Bayco 13W rechargeable cordless fluorescent trouble lamp. It runs about 100 minutes on a charge and costs only $35. Imagine, no more tangled cords as you poke around the inside of your transmitter or equipment rack.

Who doesn't like to save money on tools?

Reach Bill Whitt at *billw@betterlifetv.tv.*

★ ★ ★

Matt Monin is from Greenbrier, Ark. As a contract engineer, he comes across of lot of unusual things.

For instance he was called to a new client's station and was working on an old FM5K1 when he noticed that a previous engineer had used rocks to keep a capacitor seated. See Fig. 3.

When a capacitor with a different diameter than the original was used as a replacement, someone thought to use a rock as a spacer.

Although the transmitter subsequently has been cleaned, the rock remains — and the capacitor, too.

Matt Monin can be reached at *mattm1001@windstream.net.*

See DROP TEST, page 10 ▶

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Menu-driven from the front panel, the 525 tunes in 1kHz steps and has five station memories that can be preset to your own station and to market companions. The high-resolution, peak-holding LCD readout shows positive and negative modulation simultaneously, and also switches to display the incoming RF level and asynchronous noise to qualify modulation readings.

Two sets of peak flashers indicate both absolute and user-programmed modulation limits, and programmable front-panel alarms (with tallies) give overmodulation, carrier-loss and program audio-loss warnings. The 525 is supplied with a weatherproof loop antenna at no extra cost.

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World Radio History

simple, but god has bigger
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

299685

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

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IN LOVE

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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.

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World Radio History

Can Radio Shed Its Lead Boots?

The Radio Industry's Business Position Needs Some Help

The Big Picture

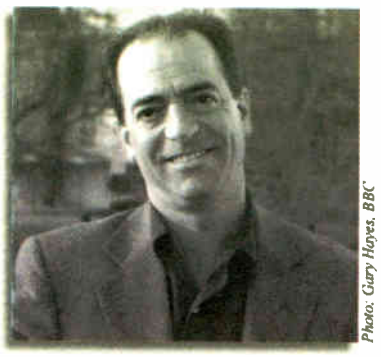


Photo: Gary Hoyes, BBC

by Skip Pizzi

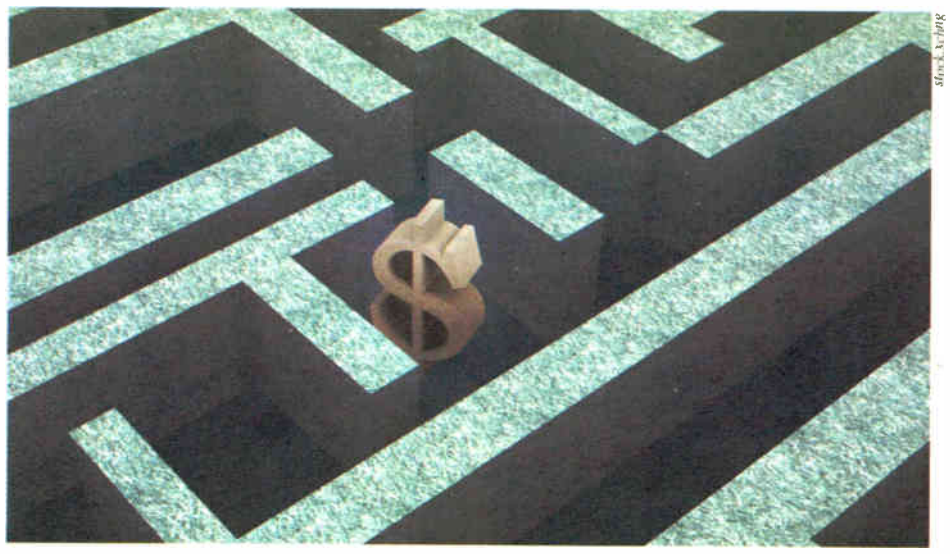
Last time we took a bit of a fictional visit to the future in New York City and looked in on one of radio's best-known haunts, the transmission facilities atop Empire State Building.

This midtown Manhattan temple of broadcasting has long been an important engine of the industry, made even more so by the loss of the World Trade Center.

But another driving force of broadcasting still lives in downtown New York in the stock markets that call Wall Street their home.

That's a place columnist Guy Wire visited a few issues back in Radio World Engineering Extra, when he profiled the recent, generally poor performance of publicly traded radio broadcasting companies.

We're going to pick up this time with a discussion of how this *commercial* engine of the industry might fare in the future.



Stock Xchng

Markets 101

First let's consider a few basic premises about the stock market, and see how they apply to radio.

There are three main components that drive a particular stock's price: 1) General market conditions; 2) the company's long-term earnings growth rate; and 3) the company's recent results vs. expectations.

Each of these has impact on a given stock's performance, but if two or more happen to be moving strongly in the same direction at the same time, the results can be dramatic (either positively *or* negatively, but more on this later).

The third item is often most influential in the short term. This implies that stock markets rarely reward current performance — it's all about the future. From an engineering perspective, it's a differential process, where the deltas are the only things that matter.

So even if a company is profitable now, the market is more interested in how the company is likely to fare in the next year or five. Perceptions of whether things are likely to improve or decline can be more critical to the company's stock performance than the current quarter's balance sheet.

Thus relative values are often more highly touted than absolute ones, such that the stock at a small company with a positive forecast can outperform that of a larger, profitable company with uncertain prospects.

So much is focused on expectations that even a company that has done well recently can be penalized on the market if it did not do quite as well as had been forecast. (Good news becomes bad news if it's not good *enough*.)

The markets are not alone in this reaction. Think about this the next time your child brings home a B when you had been told that all indications were pointing toward an A.

With such an emphasis on speculation, the market naturally dislikes uncertainty.

See LEAD, page 12 ▶

Drop Test

▶ Continued from page 8

★ ★ ★

In another life Joel O'Brien worked for Warner Cable in direct sales. Joel sends in a tip learned from the cable techs on how to run cable long distances in conduit (and it doesn't involve a dog).

Joel starts with a spool of good fishing line. He then walks the line the length of conduit, unspooling it as he goes along.

The next step is to tie a small rag, maybe 1 by 3 inches or so, to the end of the line. Tie it tight!

It doesn't matter if the conduit is buried or not. Stuff the rag tie into the conduit as much as you can. Then go to the other end of the conduit. Take your shop vacuum, put the hose right over the conduit and turn on the vac.

The rag tie should pull the fishing line through the conduit; then you can tightly tie the cable or wire you want to snake through and pull it the length of the conduit.

Joel says this worked for him when he needed to run 400 feet of RG-6 from the pole to his house. He thought this might be one of those things everyone knew. Maybe so, maybe not; with so many new engineers, tips like these are helpful to us all.

Reach Joel O'Brien at *joelobrien@clearchannel.com.*

★ ★ ★

Cris Alexander of Crawford Broadcasting, a fellow contributor to Radio World, passes along some tips from Don Johnson, engineering and technical support engineer for Bext Inc.

Don works in the repair department and is responsible for repairs and shipments of equipment sent in to the company.

A common sight is heavy items that have been broken in shipping. Usually these products have been shipped via a local packaging store.

Even though the problems often are easy to fix — broken rack handles and bent BNC connectors — such damage causes a unit to be delayed in repair, because the shipping agent will want to see the damage before it is repaired.

To avoid the problem, stations need to be responsible for their own packaging. This includes triple-layer cardboard boxes rated for the weight of the item; solid packing foam at least 1-1/2 inches beyond the farthest corner of the item; no bubble wrap if the item is over 15 pounds; and no popcorn, ever.

If you cannot find the proper packing material, Don suggests you use spray cans of insulation foam, available at your local hardware store.

The procedure is straightforward: Spray about 2 inches in the bottom of the box, then place a layer of plastic sheet over the foam. Remember that the foam will continue to expand after you stop spraying.

As it starts to harden and stops expanding, place the unit in the box. Note that the unit should be inside a plastic bag, separate from the plastic liner in the box.

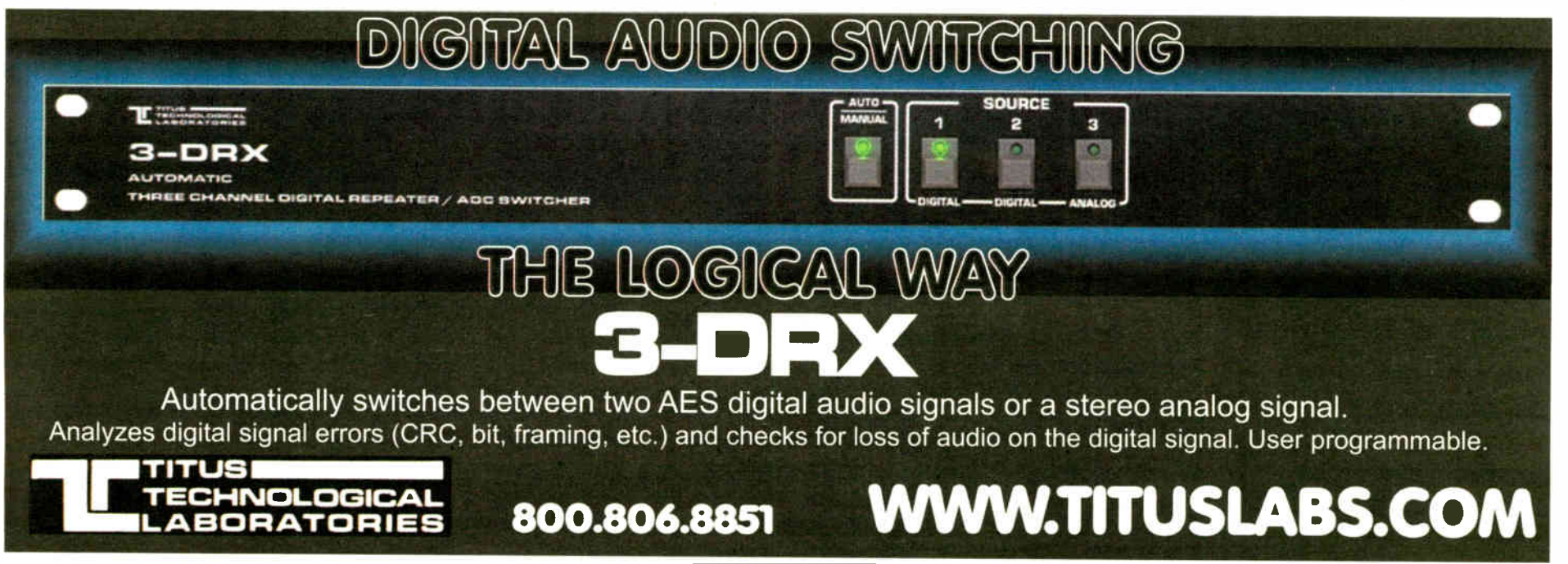
Now spray around the edges of the box a bit at a time. Place a plastic sheet over the item and spray in a foam cover. Again, remember that the foam will expand for quite a while after you stop so use less than you think you'll need.

Don has heard a rule of thumb about shipping: After it's packed, would you allow the box to fall 10 feet onto a concrete floor? If not, repack it.

Don Johnson is at *donald@bext.com.* Cris Alexander is at *crisa@crawfordbroadcasting.com.*

John Bisset has worked as a chief engineer and contract engineer for 39 years. He is the northeast regional sales manager for Broadcast Electronics and in 2007 received the SBE's Educator of the Year Award. Reach him at (571) 217-9386 or jbisset@bdcast.com. *Faxed submissions can be sent to (603) 472-4944.*

Submissions for this column are encouraged and qualify for SBE recertification credit.



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In addition to ESP Adaptive Correction and "On-the-Fly" mode changing, the new FXi 60/250esp FM/HD Exciter offers a number of unique features that you won't find in any other exciter. We've eliminated the need for several external products that are traditionally part of your broadcast chain by incorporating them into our exciter. This translates to lower cost of ownership. Added capabilities make the FXi 60/250esp the most technologically advanced and cost effective FM/HD exciter on the market. The embedded processor in our new XPi 10esp Exporter drives reliability and ease of operation. Together with our FXi 60/250 Exciter, it's ideal for all HD applications, including FM and HD synchronous boosters. Eliminating equipment, simplifying your system, and lowering the cost of ownership . . . we've thought of everything.
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World Radio History

Lead

▶ Continued from page 10

Of course, there are no sure things when predicting the future, so the market usually rewards those that seem *least uncertain.*

Where a company is investing plays a role, as do any pending external forces upon the company, such as regulatory decisions or court judgments.

Finally, there is an asymmetry to stock performance based on these perceptions, in that good news generally is rewarded mildly, and really good news receives moderate benefits, but even a little bad news often is punished severely.

This is why many historical stock curves show steeper slopes in the negative direction, and shallower climbs toward the positive (i.e., big drops can happen in a hurry, while big gains typically occur more slowly.)

Again, engineers might find familiarity in waveform mechanics: Adding two identical waves *in phase* causes only a 3 dB power increase, but add the same two waves *out of phase* and a nearly infinite attenuation results.

This is important when analyzing long-term vs. short-term performance, since declines can have more of a visceral impact in the shorter time window.

Now apply these tenets to the radio industry and you can understand why its stocks may be performing so poorly. Even though many of these companies are turning decent profits, most future indicators show some uncertainty at best, ranging to downright scary long-term prospects (as presented in research discussed here last issue).

Meanwhile, the industry's digital investments are not yet paying off, and a few key regulatory decisions remain undecided.

Perhaps most troubling to investors is that the advertising business, which drives radio's profitability, is considering a major overhaul that could redirect its emphasis away from traditional venues like radio.

Righting the ship

Clearly if the industry is to survive in the corporate marketplace, it needs to reverse these trends; and the sooner the better. This is especially true at the station level, where the problem seems most acute.

How can this be done?

One way to do this involves advice that this column and others throughout the industry have repeatedly given of late:

1) Strengthen the station or group brand, with emphasis on the local market identity;

2) Differentiate the station from its competitors, again with local competitors most clearly in mind; and

3) Establish a strong online presence, primarily to serve (you guessed it) the *local* audience.

Alone, however, these may not be enough to have the desired market impact. Some bold moves may be required.

For this, radio companies will have to get beyond the usual quarter-to-quarter analysis and make long-term strategic commitments to new investment and growth.

This may mean that the specifics of monetizing these investments to the last strategic detail may have to come later. Don't be afraid of making a few digital mistakes (everyone does). If you wait for the comfort that you've got it all figured out before moving, it will either be too late, or you will never move at all.

Stock markets rarely reward current performance — it's all about the future. It's a differential process, where the deltas are the only things that matter.

Don't think of this as imprudent. Approach it instead as taking the critical first steps on a long path, the exact end point of which may not yet be fully identified, but which has the goal of long-term profitability and corporate sustainability.

The path should be built with opportunity and expectation of course corrections, allowing fine tuning along the way as more is revealed through early experience. (Without starting down the path, you can't learn where to go next.) This is the essence of all great discovery.

I recall similar, personal advice to me when I was thinking about starting a family but was worried that financial conditions weren't quite suitable yet to support a child. A friend advised that if I stuck to that criterion I would end up old and childless, because conditions are *never* quite right, and no one ever feels that things are good enough to take that plunge without some trepidation.

You just have to make your best preparations and jump. I'm glad I did.

Similar counsel is held in the quote from Cicero, "More is lost from indecision than bad decisions." It certainly applies here.

The final analysis to this issue will hinge on the answers to a few critical questions:

Is this just a short-term slide, to be followed by a gradual recovery, or is it the start of a long declining trend?

Is there anything the industry can do to reverse its rust-belt image in a shiny new media world?

Can the rare, asymmetrically positive tipping point be established by a big breakthrough?

It will take more than a few good responses to those queries by broadcasters to set the radio business back on a positive, long-term course. This won't happen without some intrepid leadership, which the industry appears to need now more than ever.

Skip Pizzi is contributing editor of Radio World.

APRE

▶ Continued from page 6

tech stuff on there,'" Leavens recalled during his acceptance remarks.

At a transmitter site in the middle of the night when you can't figure out a problem, *that's* when the list matters, he said.

MARTY BLOSS, former director of technology for the Public Radio Satellite System, is the recipient of APRE's Meritorious Achievement Award.

Bloss is credited with shepherding the ContentDepot satellite distribution system now in use by public radio stations to deliver real-time and file-based audio programming.

In a power point presentation titled "Dreaming in Code," Bloss described the long history of "ConDep."

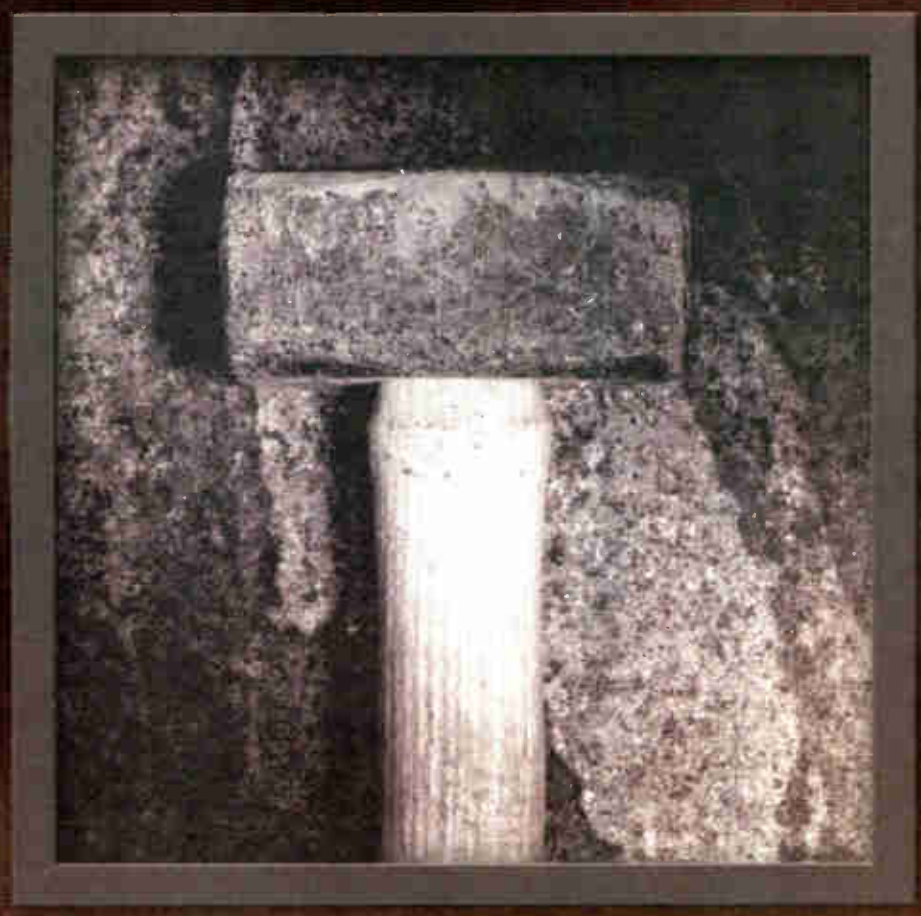
He now works in a radio quiet zone at the National Radio Astronomy Observatory in Green Bank, W.Va. His current project aims to make some of its telescopes work more efficiently.

Photo by Leslie Stimson

Chuck Leavens, DOE/Director of IT Management of WDUQ(FM), Pittsburgh, is the 2008 APRE Engineering Achievement Award winner.

World Radio History

Omnia 6EXi is:



AND EVERYTHING IN BETWEEN

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World Radio History

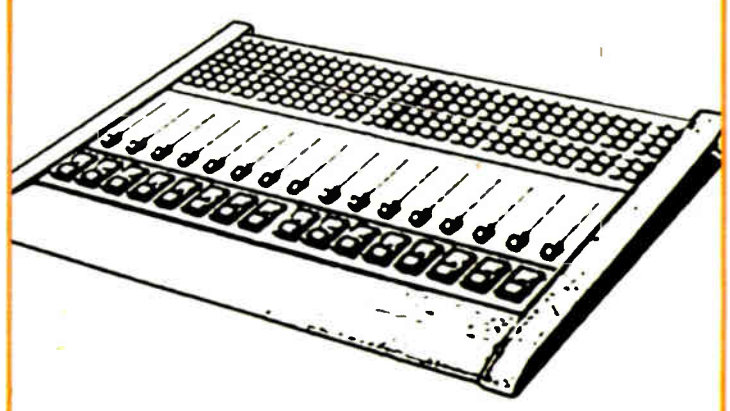
Nobody knows what the future holds.

(But there's a reason our logo is a crystal ball.)

Comdial Executech® PBX phone, *ca.* 1996. Comdial was one of the leading PBX companies in both sales and technology, with a million-square-foot assembly facility and over $7,000,000 in reported earnings. Comdial continued with traditional PBX tech and declining sales until filing for Chapter 11 bankruptcy protection in 2005, when all assets were acquired by **Vertical Communications**, a VoIP company.[1]

Cisco® 7970 IP Phone, *ca.* 2006. Founded in 1984 as a manufacturer of multi-protocol routers, Cisco began, in 1998, to promote VoIP technology to Fortune 500 companies as a more cost-efficient, feature-rich alternative to PBX phone systems. In just 10 years,VoIP effectively killed the traditional PBX; VoIP revenue is projected to reach $48 billion by the end of 2010.[2] Cisco annual revenue reached $35 billion in 2007.[3]

Axia Element broadcast console, *ca.* 2008. Founded in 2003, Axia is a division of Telos Systems, worldwide leaders in broadcast audio equipment. Axia was launched with the mission of bringing proven technology from the computer world – switched Ethernet, audio routing via IP, distributed network architecture – to radio. Using open standards and bulletproof Cisco routing technology, nearly 1000 Axia consoles have been built in just 5 years, making Axia the fastest-growing console brand in radio.



Generic TDM console, *ca.* 200*x*. Some radio consoles and routing systems are still based on Time-Division Multiplexing, developed in 1962. TDM was once the basis of most (if not all) digital PBX telephone systems. Consoles and routers based on TDM employ centralized "card cages" that require all inputs and outputs to be wired to a single location. Like traditional PBXs, TDMs typically rely on closed, proprietary code, and cannot be easily or economically changed or expanded when new operating criteria arise.

Santayana famously noted "Those who cannot learn from history are doomed to repeat it." Some people change when they feel the heat; others when they see the light. With that in mind, a quick comparison of telecom and broadcast technology reveals some common trends that broadcasters are finding hard to ignore.

Nearly 1000 Axia studios are installed around the world — more are added every week. And while our clients probably don't think too much about the technology inside our consoles, they know they won't have to worry about it in the future.

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AxiaAudio.com

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References: 1) EDGAR-online.com; http://yahoo.edgar-online.com?sid=893&sh2id=12&ipage=6000243&ipage=5763&ipage=6000043&version=1&ssid=2; 2) Infonetics Research, http://www.infonetics.com/pr/2007/nr2007-voip-pr.asp; 3) Wikipedia, http://en.wikipedia.org/wiki/Cisco

World Radio History

Technology

Axia consoles come with 24/7 support.

(Because radio is a 24/7 business.)

Broadcasting doesn't take time off for holidays and weekends. So why do all the other console companies only provide support from 9-to-5? This doesn't make much sense to us.

That's why Axia clients get **24/7 support**, 365 days a year (366 days in leap years, wise guy).

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World Radio History

Frequency

▶ Continued from page 1

The change will benefit the profession and still allow SBE to be affiliated with the league, critics say.

The SBE announced the changes in April. Its leaders said the decision was not a response to recent criticism about the volunteer aspects of the program.

Frequency coordination 'critical'

Since 1999, the society has provided a volunteer frequency coordinator for every NFL venue to handle RF coordination at each respective stadium. It receives an unpublished amount of money for that service.

The volunteers are issued an equipment kit provided by the NFL, which typically includes an Anritsu 2721B spectrum analyzer, Icom R10 scanner receiver, M1 Optoelectronics handheld frequency counter, direction-finding antenna with 100 dB attenuator, two Motorola handheld radios, NFL coordination database and an IBM laptop with appropriate licensed software.

The program was established as an extension of SBE's overall volunteer frequency coordination efforts, said Barry Thomas, the society's president.

"For 30 years, SBE frequency coordinators have provided free coordination services to benefit their local broadcast community," he said.

"The NFL at the time had become aware of our nationwide network of volunteer frequency coordinators. SBE's motivation was to help local broadcasters in NFL markets protect their frequencies during game days."

The proliferation of wireless devices at an NFL game creates an RF environment that can be overwhelming, says SBE, with systems from the quarterback's in-helmet receiver and sideline reporters' interruptible foldback to the food service director's walkie-talkie creating potential interference. Frequency coordination is viewed as critical to the overall presentation of an NFL game.

Jim Cole, Arizona backup Game Day Coordinator, and Russ Harbaugh, Detroit GDC, work the frequency coordination check-in table for this year's Super Bowl XLII in Phoenix.

The NFL does pay the society a fee for its services, said Jay Gerber, founder and manager of the GDC program and manager of the NFL Frequency Organization Group.

"It amounts to a considerable amount of money," Gerber said. He declined to say how much the NFL annually budgets to run the GDC program.

The league reimburses game day operators for out-of-pocket expenses, and since 2002, has offered a small gratuity to coordinators as a thank you for their efforts. SBE is charged with distributing the funds. The gratuity has increased several times through the years, Thomas said.

The arrangement has been beneficial to SBE because it "illustrated the value of frequency coordination and cooperative spectrum management," according to the society press release announcing planned changes.

According to program supporters, SBE and the NFL work jointly to promote an interference-free and harmonious environment for wireless operations, including broadcast radio and television. SBE has provided the NFL access to a pool of broadcast engineers capable of handling frequency coordination, Thomas said.

The volunteer nature of the program caused concern for some engineers since its inception nine seasons ago.

In April, SBE announced that after this season, the NFL will administer the Game Day Coordination Program, using coordinators hired by the league. SBE said the changes are a "natural progression" of the program and were not initiated by either side.

Mario Hieb, P.E., a consulting engineer and critic of the previous SBE/NFL agreement, said he was satisfied with the new arrangement though surprised at the timing of the announcement, just prior to the spring NAB Show.

"I have been corresponding with previous SBE leaders for several years on this issue and never seemed to make an impact," he said. Hieb, an SBE member, also is an occasional contributor to Radio World.

Hieb, whose consulting work includes frequency coordination, wrote in an unpaid personal commentary in the newspaper in January that SBE was subsidizing the NFL by providing game day frequency coordinators to the league at no charge.

"Sure they get a parking space, gas money and maybe a free hot dog, but they are not paid a professional rate; and this is with the blessing of our professional organization, the SBE," he argued in the commentary.

Workload increase

Another observer who provides frequency coordination services said the new agreement will allow broadcast engineers to pursue paying opportunities and advance the profession of RF coordination.

The timing of SBE's announcement led to speculation that the organization was reacting to the criticism; but Thomas said the announcement was not the result of recent pressure from critics like Hieb.

"The basis for this new agreement has been under discussion for some time, pre-dating Mario's commentary," Thomas said. "This evaluation has taken place over months if not years."

Among the reasons he cited for the change is the workload increase for game day frequency coordinators.

The load "has increased to such a level that the volunteer program that the SBE operates may not be the most appropriate model for the growing RF coordination requirement at NFL games," Thomas said.

As the transition progresses, SBE will concentrate its efforts in developing training and education programs in RF event coordination, including those skills used as an NFL game day coordinator, Thomas said.

"Those who complete these programs will be made available for referral to the NFL," Thomas said.

SBE has stated that it wants to help members facilitate their own businesses in RF event coordination or increase their "employee value" through the understanding of principles of sharing of BAS spectrum.

That is exactly the point Hieb sought to make in his January commentary, Hieb said.

"The SBE policy of voluntary coordination takes work away from people who do it for a living," he wrote.

Yet to be seen is how much the NFL will be willing to spend on hiring game day frequency coordinators or if it will hire SBE members for such work.

"The NFL has no obligation to pay a professional rate to the GDC professionals. There are some who will probably do it for nothing, as they have in the past; perhaps that is their business, but it does nothing to help the profession," Hieb said.

Thomas said the SBE will "informally refer qualified engineers," but that the "NFL will ultimately be responsible" for securing coordinators.

"We expect the NFL will continue to look to SBE members for GDC services," Thomas said.

Gerber of the NFL Frequency Organization Group said, "SBE has been a wonderful partner, and typically their members make excellent GDC candidates. It is our intention to continue to have that sort of relationship with the SBE. However, we have never confined our GDC requirements to only SBE members." He said a number of current GDCs and assistants are not SBE members.

For those who have worked as volunteer coordinators, the experience likely will make them good candidates to continue in those roles after this season, said a broadcast engineer who has worked as a game day coordinator.

Advance spectrum management for coordinators begins the week prior to a home game in each respective NFL city. According to one coordinator who asked not to be identified, his week begins by acknowledging requests for frequencies.

For a Sunday NFL game, work begins on the prior Thursday with two to four hours to assemble the game's matrix of operating pre-/post-game channels, while Friday and Saturday are spent taking last-minute frequency requests and adding those to the database, he said.

"Game day typically begins three hours prior to kickoff with a cursory check of team communication needs, network TV tech managers as well as home and away radio rights holders. At kickoff, we typically position ourselves at the sideline communication carts."

As the game continues, coordinators typically will take their seats in the press box to monitor various mission-critical channels for impairments, he said. Game wrap-up duties include revisiting collaboration partners to gather confirmation of problem-free operation.

Thomas said SBE's decision generated lots of discussion among society members at April's NAB Show.

"The general response was positive. The change allows SBE to serve, in a very specific way, an educational functional [purpose] regarding NFL event coordination," Thomas said.

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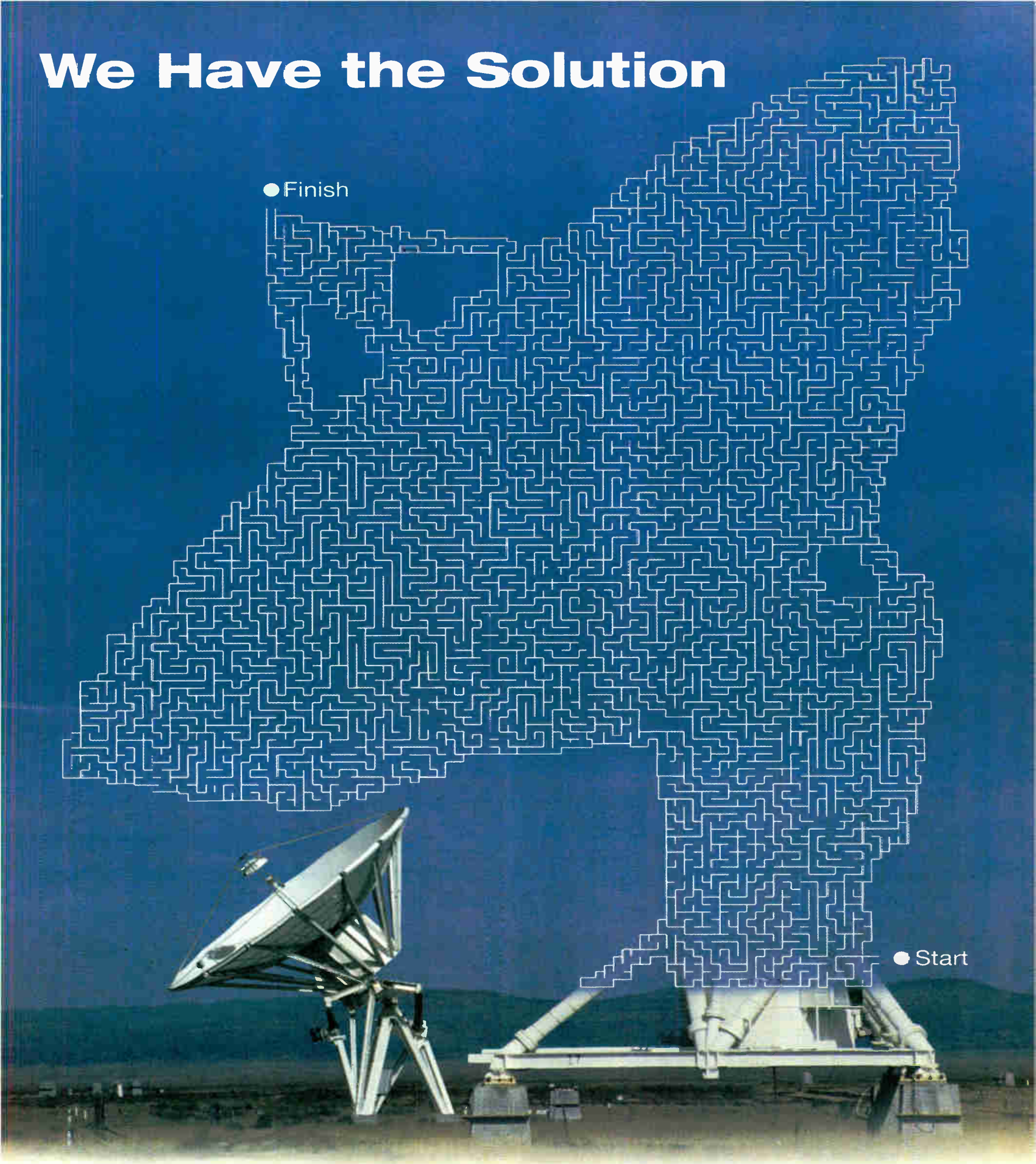

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Summertime Sampler

This is the season when radio engineers and managers have a wealth of new equipment available to them. New products are blooming from the gardens of manufacturers, having been introduced at the recent spring NAB Show or in the months leading up to it.

Here's a sampling of what's new to the market. Other new products appeared in the June 4 "Cool Stuff" issue or will be featured in upcoming editions. Did we miss an important product? Tell us at radioworld@nbmedia.com.

Contributors to this section include Paul McLane, Kelly Brooks, Chuck Bullett, Ty Ford, Harold Hallikainen, Paul Kaminski, Carl Lindemann, Tom Osenkowsky and Jim Withers.

Vorsis AP2000 Offers More Horsepower

Vorsis added five models to its audio processor line.

The AP2000, shown, is successor to the Vorsis AP1000 31-band audio processor. Its hardware has 30 percent more DSP horsepower, an overhauled five-band AGC, new voice distortion management technology and a distortion-managed clipper.

The five-band AGC now incorporates Vorsis' Sweet Spot Technology, which manages the behavior of the AGC in real time to ensure that it operates in its "sweet spot." The company says this maximizes the consistency of a station's on-air presentation, no matter what the source material or audio level from source to program source.

The FM2000 is modeled after the AP1000 and includes the features of the AP2000 except the HD processing chain and its dedicated digital output.

The VP8 multi-mode audio processor has six modes: FM, AM, MPEG-3, HE-AAC, HDC and VoIP. Algorithms condition the audio appropriately for the selected transport medium. Audio is first pre-processed by a phase linear four-band AGC, then by an eight-band limiter and final limiter and clipper.

The FM10-HD is the successor to the FM5, and offers a five-band AGC followed by a 10-band limiter. The FM signal chain includes pre-emphasis and peak control as well as a reference grade stereo generator. The HD signal chain includes its own peak controller tailored for the codec used in FM and HD broadcasting, according to Vorsis.

The AM10-HD is designed for AM broadcasting.

Info: www.wheatstone.com

Tieline Has Stability Management Software

Tieline is promoting the latest auto jitter buffer and IP stability management software for its G3 range of codecs.

The software automatically samples the IP link, then maximizes the audio quality and minimizes the delay over wired and wireless connections.

Because the Internet is a lossy network, some audio packets arrive in different order and some never arrive; Tieline says its stability management software uses multiple strategies for ensuring that the original audio from a live remote broadcast makes it to the studio with quality, stability and continuity over the Internet.

The company says the enhancements for the G3 range of audio codecs mean radio talent can get on with delivering quality content without having an engineer around to get connected.

Info: www.tieline.com

Omnia One Comes to AM Band

Omnia has extended its Omnia One line with an AM model.

Its processing topology includes a wideband AGC/leveler followed by four bands of AGC and a separate (not integrated) four-band limiter section with shared precision linear crossover.

It includes an advanced, NRSC-compliant, distortion-managed final limiter/clipper with

selectable low-pass filters that support AM HD transmission installations, the same as used in the Omnia One's siblings.

Features include Ethernet, RS-232 Modem and GPI remote control ports with built-in Web page interface; Livewire I/O Connectivity; analog XLR balanced inputs and outputs; digital AES/EBU input, output and external Sync input; automatic input fail-over on loss of audio; universal power input; stereo headphone jack with front-panel control; jog-wheel user interface with LED level metering and LCD screen; and Web browser remote interface.

There's a wideband AGC for smooth "hand on the pot" gain riding; selectable phase rotator; four-band AGC to add dynamic EQ enhancement for consistency and to build density before the limiter stages; four-band peak limiter using feedback limiters for the lower two bands (optimized for bass punch and lower midrange warmth) and feed-forward limiters for the upper two bands (optimized for sparkling upper mids and highs); and time-aligned, dynamically flat crossover.

Info: omniaaudio.com

Mayah Gets Sporty

Mayah Communications featured its Sporty and Flashman II portable reporter codecs.

Described by the company as "the ultimate tool for live reports, radio interviewers and commentators," Sporty, shown, supports audio transmissions over Ethernet/IP, UMTS/3G, WLAN/WiFi, ISDN and PSTN,

with direct audio logging to SD card or USB stick. Additionally, it offers compatibility and automation of audio-over-IP connections in compliance with SIP/RTP per EBU standards.

Flashman II provides two professional microphone/line XLR inputs for recording to SD card or USB stick in advanced and conventional audio formats. Simultaneous live transmission can be provided over Ethernet/IP, UMTS/3G, WLAN/WiFi with SIP/RTP per EBU audio-over-IP standards.

Mayah also showcased its Centauri II multichannel audio gateway codec for audio transmissions over IP, ISDN, X.21, V.35 and ASI interfaces with major coding algorithms, i.e. G.722, MPEG Layer II/III to MPEG-4 HE AACv2 or Enhanced apt-X and linear audio. Centauri II also offers optional redundant power supply, ASI Interface and dual Ethernet.

Additionally, Mayah Communications said it is seeking clients, partners and distributors for its products for the U.S. market.

Info: www.mayah.com

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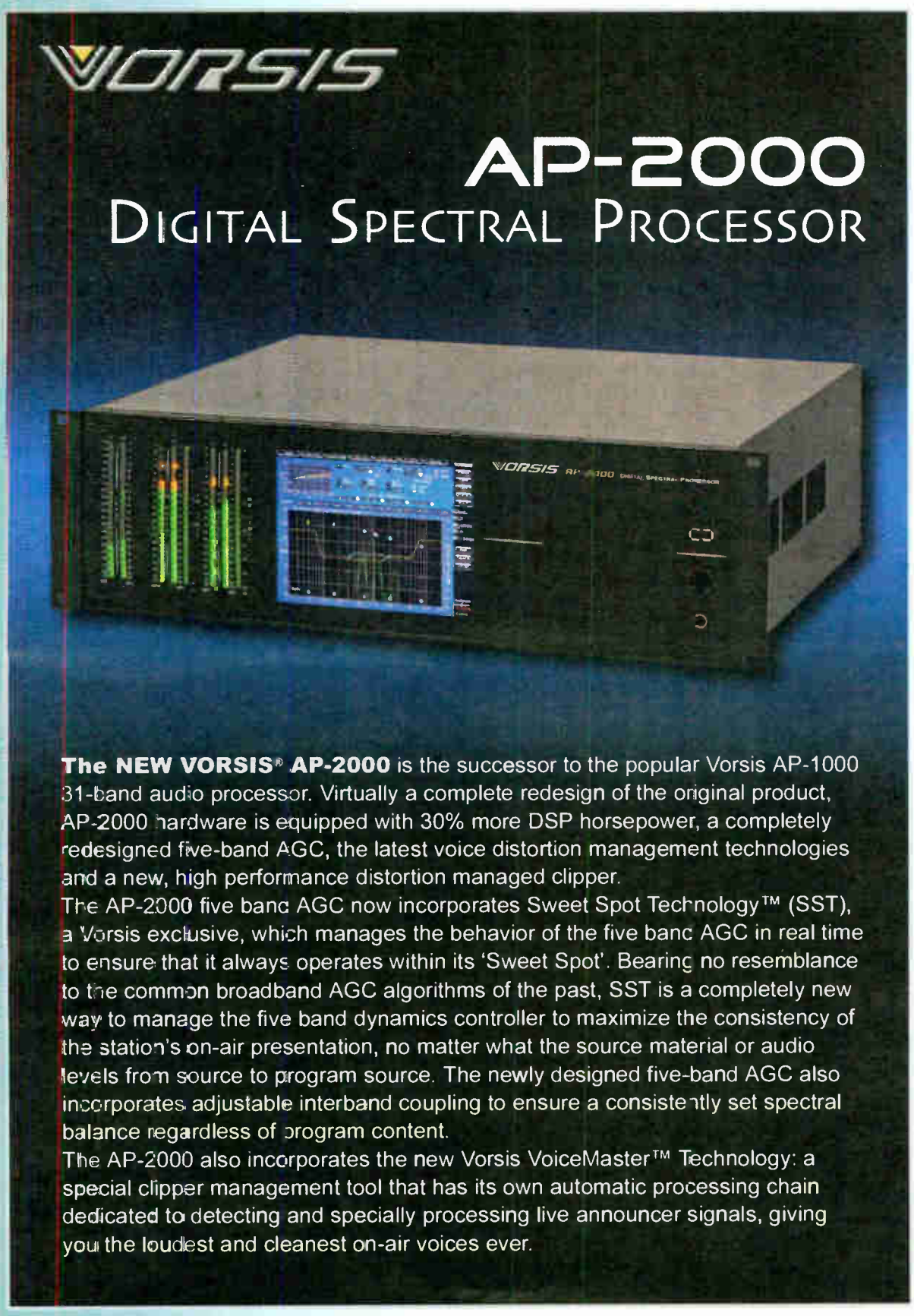

The NEW VORSIS® AP-2000 is the successor to the popular Vorsis AP-1000 31-band audio processor. Virtually a complete redesign of the original product, AP-2000 hardware is equipped with 30% more DSP horsepower, a completely redesigned five-band AGC, the latest voice distortion management technologies and a new, high performance distortion managed clipper.

The AP-2000 five banc AGC now incorporates Sweet Spot Technology™ (SST), a Vorsis exclusive, which manages the behavior of the five banc AGC in real time to ensure that it always operates within its 'Sweet Spot'. Bearing no resemblance to the common broadband AGC algorithms of the past, SST is a completely new way to manage the five band dynamics controller to maximize the consistency of the station's on-air presentation, no matter what the source material or audio levels from source to program source. The newly designed five-band AGC also incorporates adjustable interband coupling to ensure a consistently set spectral balance regardless of program content.

The AP-2000 also incorporates the new Vorsis VoiceMaster™ Technology: a special clipper management tool that has its own automatic processing chain dedicated to detecting and specially processing live announcer signals, giving you the loudest and cleanest on-air voices ever.

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North-East: **1-315-623-7655** Jim Peck
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LBA Shows SafeOne RF Monitor

LBA Technology is promoting the SafeOne Model SI-1000 personal RF monitor for broadcast technicians and tower workers, shown.

Features include compact, wearable size, long battery life and detection of hazardous RF fields such as those around FM, TV and microwave antennas. SafeOne is furnished with a protective padded ripstop Nylon pouch with attachments for belt or climbing harness. Two furnished AAA cells power the unit for up to 1,000 hours.

The company also has introduced a series of RF vacuum contactors for users of heavy-duty RF relays; and the CAMI AM tower isolator, which it says eases future AM/FM translator installs.

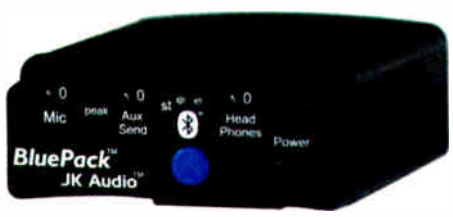
CAMI isolation systems permit other antennas to be mounted on "hot" AM towers, and are targeted to isolate single auxiliary broadcast coaxial cables for STLs, FM translators, low-power FM and television translators. One CAMI fits all of these applications, according to the company.

CAMI systems also pass AC or DC current to tower top amplifiers, and are resistant to weather and lightning.

Info: www.lbagroup.com

Happy to Be Blue: JK's BluePack

The attraction at the spring NAB JK Audio booth was the new BluePack man-on-the-street tool.



"Ever since last year's introduction of the Daptor Three Wireless Audio Interface, the question has been, 'How about a version with a mic input and headphone output?'" Joe Klinger said.

While Daptor Three was meant to be a wireless complement to the wired Daptor Two cell phone interface, he said a new design was needed for this interview tool.

BluePack uses Bluetooth wireless technology, the standard for connecting a headset to a cell phone, music player or notebook computer.

BluePack pairs to the user's cell phone like other wireless headsets, allowing full-duplex voice to the station.

"But this is not a typical headset — offering an XLR mic input and 1/4-inch headphone output, along with 3.5 mm send and receive for your favorite recorder," Klinger said. "The advanced audio electronics do not suffer from the discontinuities often associated with small hands-free headsets.

"Using your professional microphone and headphones, along with this low-noise mic preamp and crowd-noise-cutting headphone amplifier allow a vast improvement over any cell phone or hands-free headset."

Info: www.jkaudio.com

Telos Ships Zephyr/IP

Telos Systems is now shipping Zephyr/IP.

The IP codec is optimized for operation over the Internet and mobile phone data services.

It uses Agile Connection Technology which combines loss detection and concealment with dynamic buffering and auto-varying bitrate functions to adapt to network conditions.

Telos says this minimizes the effects of packet loss, varying bandwidth and jitter. Z/IP also works with high-speed mobile phone data networks; a PC Card slot accepts standard mobile data cards.

Also incorporated is AAC-ELD, a new codec based on low-delay AAC. Telos cites the algorithm's fidelity at low bit rates, loss concealment and auto bitrate and jitter tuning as making it suitable for two-way IP applications over non-controlled networks.

The Z/IP family includes a studio codec and a PC-based server that addresses firewall and Network Address Translation issues.

"Firewalls and NAT devices often found at the edges of LANs can prevent audio streams from flowing, but Telos Z/IP Server technology solves this problem, keeping track of users' online status and IP address information so that making connections is as simple as selecting from an onscreen list," the manufacturer said.

Info: www.telos-systems.com

Anritsu Simplifies Spectrum Mask Definition

Anritsu Spectrum Master spectrum analyzers measure 9 kHz to 7.1 GHz, and up to 13 GHz and 20 GHz, depending on the model.

The company says it has simplified the definition of spectrum masks for making compliance measurements for analog and digital broadcasts in the AM and FM bands.

Upper and lower limit masks can now be defined as a series of line segments, including vertical line segments. Spectrum masks are generally symmetrical about the carrier frequency, so a mirror control allows the mask definition on one side of the carrier to be copied to the other after the mask is defined, or during mask definition.

Further, the reference frequency and amplitude of the mask can be relative. A marker can be set on a particular carrier, and then the analyzer can overlay the mask on that signal. One AM or FM mask definition can be used for multiple stations at varying carrier levels.

For more information, visit www.us.anritsu.com

Special Connectivity Not Required: Burk Plus-X AC-8

Remote control manufacturer Burk Technology has introduced the Plus-X AC-8, a remote outlet controller for managing AC power to devices at unattended locations. It retails for $895.

The Plus-X AC-8 saves wasted drive time, fuel and call-out costs, Burk says, by allowing broadcasters to remotely reboot workstations, servers, modems and other IT and broadcast gear.

Remote equipment connects to standard 120V outlets on the rear panel, allowing remote control expansion without additional wiring effort.

Burk says there are no special connectivity requirements, making the Plus-X AC-8 suitable for most studio or transmitter locations. "While it plays well with the ARC Plus, you can literally hook it up to any remote control, or even use it by itself at any IP-equipped location (especially unattended studios)," Nathan Burk said. Broadcasters control the unit via an onboard Web server, by using an Ethernet connection to the ARC Plus, or through contact closures from any remote control.

Burk this spring also showed direct serial connectivity between the ARC Plus and Harris Z and 3DX transmitters using the Burk PlusConnect series.

The PlusConnect eliminates external parallel wiring to the transmitter and increases remote monitoring and control capabilities. It lists for $1,195.

The supplier also unveiled free upgrades to the ARC Plus and GSC3000 remote control platforms. Version 2 of the ARC Plus product suite features expanded reporting and analysis tools while GSC3000 and VRC2500 users now benefit from selective alarm notification.

Info: www.burk.com

ANT Monitors Power With MTB Series

ANT Group Srl introduced the MTB-01 and MTB-03 single- and three-phase power monitors.

These monitors — typically located within the electrical panel — measure voltage, current, true power, apparent power and reactive power. Power measurements are integrated over time to yield energy use. Measurements are logged to reveal power issues. Multiple units can be daisy-chained using RS-485 (copper) or a fiber optic link.

The RS-485 bus or fiber optic link can drive the ANT150, located outside the electrical panel, to provide a graphical display of captured data. The ANT150 can drive other ANT devices over RS-485 to interface the collected data to SNMP, a Web server or analog voltages (or currents).

Broadcasters are expected to use these products to monitor transmitter site power quality and determine energy consumption of site renters.

Info: www.antgroup.it

Inovonics 525 Is Accurate Even Around IBOC

Inovonics has introduced two products as well as an update to an existing one.

Model 525, shown, is the company's second-generation AM modulation monitor; it maintains its accuracy even in the presence of IBOC digital transmission.

Features include a phase-locked synchronous detector that helps reject adjacent-channel interference and recovers only the amplitude-modulated component of the HD-R hybrid signal, even at full audio bandwidth.

Inovonics' third-generation Model 720 RDS encoder eases installation and operation. The display lets users see incoming data from a station's automation system and display scrolling messages as they are seen by listeners.

The Model 261 Rev 2 "use it anywhere" audio processor is suitable for studio phone lines — or wherever there is an analog or digital audio "problem in search of an answer," according to the company. Installed at the transmitter, the 261 Rev 2 becomes an on-air processor; it features pre-emphasis and high-frequency limiting.

For more information, contact Inovonics at (831) 458-0552 or visit www.inovon.com

OMT Technologies Introduces v3 Software

OMT released v3 Software including iMediaTouch v3 Radio Automation, iMediaLogger v3 Digital Logging Software and WebSecure+.

The company calls iMediaTouch v3 the only fifth-generation radio automation software. New features include auto backup for

system configuration and database entries, automated sports broadcasts, automatic hooks builder, an optional cart-style On-Air interface, enhanced phone bit recorder, enhanced dual screen options and a new, compact drag-and-drop audio library.

iMediaLogger v3 now has mic skim pause features, adjustable delay skimmer for off air in a digital chain, pre-set maximum record durations when starting on closures, Cart Chunk metadata encoding, ID3 metadata tags and the ability to export XML for podcast applications.

Brand new is WebSecure+. When combined with iMediaLogger it creates a media recording and distribution center.

Using a Linux OS, WebSecre+ is suitable for Web Appliance or Server applications and allows stations to distribute content to single or group users over a secure IP address. With support for iTunes RSS publication, WebSecure+ is suitable for internal or listener podcasting distribution.

Info: www.imediatouch.com

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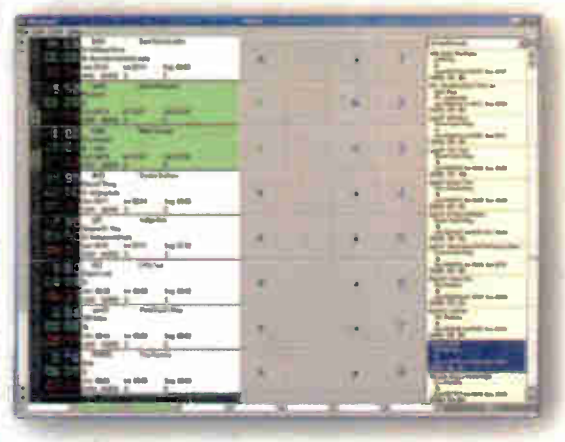
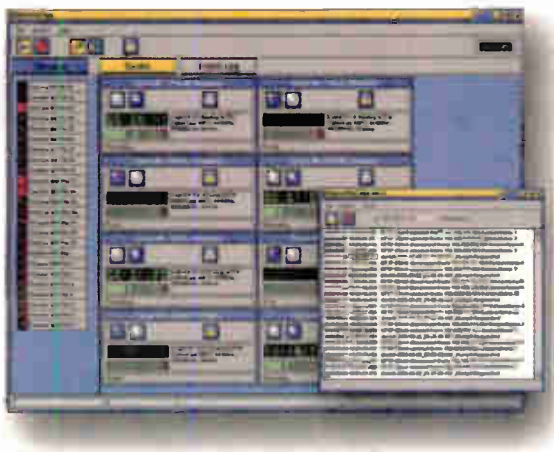
Digital Cart Player



WaveCart - the original on-screen cart machine replacement.

Audio Logging

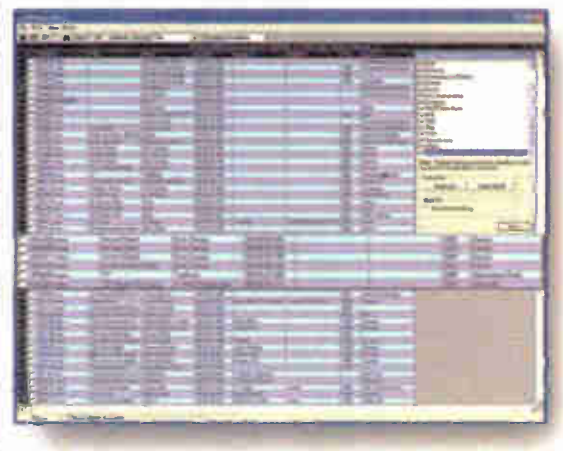


SkimmerPlus - skimming and audio logging with web playback.

Complete Systems

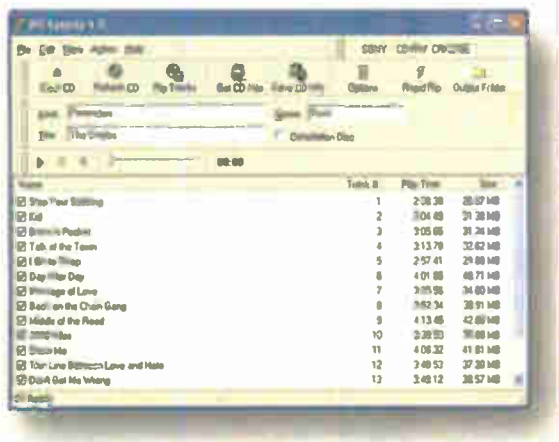
Systems - fully configured with hardware, software and music.

Music Library



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

CD Ripping



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BSI

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Wheatstone: The Power of the Square

Wheatstone says its E2 Ethernet audio system provides audio delivery for the emerging IT environment in broadcast markets.

It is designed to interface with its line of E-Series control surfaces including the new Evolution 4 Control Surface.

The E2 system architecture comprises linkable units or squares that communicate via a Cat-5E/-6 cable connected to standard Layer 3 Ethernet switches. System configuration can be achieved in eight seconds.

Features include setup Wizard, virtual mixing, profanity delay, 100 MB or Gigabit connectivity, the ability to split stereo pairs into mono, SNMP protocol and distributed intelligence.

The 100 MB port is for surface connectivity. The Gigabit is for audio streaming. Wheatstone says it is giving the user the option of connecting the surface to the network or direct to the Engine to cut down on the number of necessary cables.

Distributed intelligence means that every square can be a system master at any time. The configuration for the entire system is distributed to every space at a predetermined rate. This allows the system to elect a new system master quickly in the event of a failure.

Info: www.wheatstone.com

ERI Lynx Series II Offers Improved Isolation

ERI is out with the Lynx Series II dual input FM antenna, which combines and radiates separate analog and IBOC FM signals.

The company says the design features improved isolation of more than 40 dB, and improved input match for both analog and digital signals.

Improved isolation is significant as the FCC considers the idea of increasing allowable power levels for the FM IBOC signal, according to ERI.

The primary benefit of the Lynx dual input FM antenna is that analog and digital signals are radiated from the same antenna elements. The antenna gains for analog and digital signals are identical and the radiated patterns for each are consistent.

The antenna consists of a single array of conventionally stacked elements with the analog and digital power distributed equally to each bay so both analog and digital signals illuminate the aperture uniformly and are affected by the tower geometry identically.

Also ERI has debuted a low-power constant impedance FM combiner based on its 955 Series bandpass filter, and the Model CF103 low-power group delay equalizer.

Info: www.eriinc.com

Adobe Player Reaches Across Platforms

Adobe Systems released the latest version of its Media Player, which uses Adobe Flash technology to deliver streaming, progressive download and protected download content for viewing online and offline.

Adobe Media Player is free and runs on Mac, Windows and Linux operating systems. It supports individual file downloads, double-click to play scenarios and RSS subscription-based delivery.

The company says the new player gives viewers control and flexibility to watch what they want, when they want, online or offline.

The customizable, cross-platform media player provides new ways for viewers to connect with content, creating revenue and brand-building opportunities for content publishers. Adobe Media Player provides high-quality playback of streamed, downloaded or locally stored video in the Adobe Flash format. Consumers can download video outside the browser in the Adobe Flash format, which can be viewed in 1080p, 720p or 480i video display resolutions.

For more information, visit www.adobe.com

BE Excites With FXi 60/250esp

Broadcast Electronics has introduced its new FXi 60/250esp FM exciter, which includes ESP real-time correction technology for increased HD Radio transmitter output power by optimizing peak-to-average power demand.

BE says its correction technology increases spectral performance for the best overall RF output mask compliance. It is the only exciter with dual RF paths and independent power supplies with outputs capable of driving two transmitters, effectively eliminating the cost of a second exciter for HD-R implementation, the company says.

The exciter also is the only one to include an instrument-grade spectrum analyzer

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capable of accurate, NRSC-compliant RF mask readings, thus cutting another cost from the station budget, according to BE.

Features include synchronous booster support, internal GPS receiver, IP connectivity, dynamic RBDS and decoded AES output from the HDC stream. It is based on BE's direct-to-channel method of modulation for audio performance through the RF chain; it offers on-the-fly switchover to backup operation as well as silence detection.

The FXi 60/250esp comes in FMi T and FMi HD Radio transmitters and is available as an upgrade option for BE's FM T, C and S series FM transmitters.

BE also introduced a new AudioVault platform with tools for localizing several unique broadcasts from a single studio. The AudioVault X platform has a new segue editor for flexible voicetracking, among other features that make it easier for groups to pool talent and lower their cost of station ownership.

Info: www.bdcast.com

Digigram Demos IQOYA IP Audio Elements

Digigram has demonstrated products from its IQOYA IP audio "ecosystem" of hardware and software including IQOYA*Link, a two-channel IP audio distribution codec; IQOYA*Call, a two-channel IP audio contribution codec with SIP; and IQOYA V*Mote, a software tool for journalists or voice talent doing remote voiceovers that establishes a contribution stream from a remote location to a studio.

IQOYA products are based on FluidIP, Digigram's N/ACIP (EBU Tech 3326)-compliant IP audio codec engine that provides interoperability with third-party IP codec devices.

When used in conjunction with the company's Visiblu network audio operating system, features like crossfading between two distant programs, remote control of gain control on a distant IQOYA or multiple redundant streams from diverse locations are possible.

Other hardware and software products are planned. IQOYA*Serv is a multichannel versatile IP audio server; IQOYA V*Call is a soft IP audio contribution codec with SIP; and IQOYA V*Cast is an Intranet IP audio distribution software suite.

Info: www.digigram.com

Alert FM Is on 90 Stations in Seven States

Global Security Systems' Alert FM is an FM-based alert and messaging system that allows emergency managers to create and send emergency information to first responders, businesses and citizens.

Alerts and messages are carried via satellite to FM transmission towers using Radio Broadcast Data System (RBDS) technology. Messages can be received on Alert FM receivers or any device with an FM chip.

The manufacturer says Alert FM is supported by state and local FM broadcasters and the NAB. Recently, these broadcasters filed statements with the commission advocating utilization of RBDS for distributing emergency information to cell phones and other devices with an FM chip.

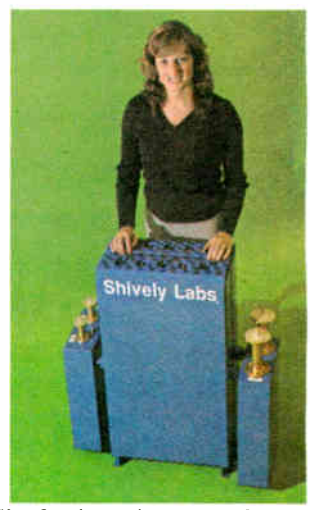
This support, GSS said, led to an FCC ruling that set standards that will allow Alert FM to provide the nation's wireless carriers with the ability to transmit timely alerts and warnings to the public.

Currently Alert FM is deployed in more than 90 FM stations in Louisiana, Mississippi, Arkansas, Alabama, Tennessee, Florida and Virginia, as well as Washington, D.C.

Alert FM has been implemented in statewide, county-wide, regional and university settings. Broward and Miami-Dade Counties in Florida and the counties in the Memphis/Shelby Urban Area Secure Initiative are the most recent areas to have access to Alert FM.

Info: www.alertfm.com

Shively Takes a Pole Position



Shively Labs is offering a new band-pass filter that it says offers four-pole response in a three-pole package.

The company showed its 10 kW balanced combiner using these filters and new compact hybrids designed to fit within tight spaces.

"Our new, universal mounting system offers versatility for the entire range of Shively side-mount arrays, and our improved range of coaxial components include new coaxial switches rated up to 850 MHz and offering fast, 3 second cycle times," the company states.

In addition to making antennas, Shively certifies yagi arrays regardless of manufacturer for FCC compliance.

Info: www.shively.com

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Henry Grows A MiniPod

Henry Engineering's new products include the SixMix USB broadcast console, networkable MiniPod Headphone System and Mixer Mate console controller.

"Although the SixMix USB console was the 'big hit' of the show, the new MiniPod Headphone System also received lots of interest," Hank Landsberg said.

The MiniPod is a compact stereo headphone amplifier that's suitable for broadcast studios. A unique feature is that several MiniPods can be daisy-chained to form a multi-listener network.

In a typical broadcast studio with several announcer positions, each announcer can have his or her own MiniPod with its headphone jack and volume control.

The company notes that the MiniPods can be used with or without Henry's MultiPhones Master unit.

The Master provides power, audio and talkback to all of the MiniPods. However, MiniPods can also be used as "standalone" headphone amps, and networked with Cat-5 if desired.

The MiniPod list price is $135.

Info: www.henryeng.com

Axia Extends Warranties, Adds 24/7 Support

The most interesting things happening at Axia over the past few months aren't products so much as milestones and new services, a company spokesman said.

Axia sold its 1,000th radio console just prior to the spring NAB Show, noting that it did so in only five years in business.

"Radio broadcasters have really taken a liking to Element consoles and the concept of IP audio as a whole," Clark Novak said.

Axia now offers 24/7 technical support, saying it is the first console company to do so.

"Sure, transmitter companies have done this for a while now, as the transmitter is the heart of any broadcast operation. But the console is the heart of the broadcast studio, and as consoles have become more powerful and complex, we saw that there was a definite need for 'anytime' technical support," Novak said.

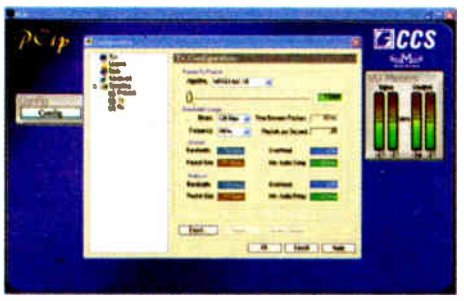
The company also now gives clients five-year warranties on their equipment purchases and has made that policy retroactive for existing clients.

Info: www.axiaaudio.com

Musicam USA Offers PC IP Codec

MusicamUSA has introduced an addition to its repertoire of IP products, the PC IP software codec, which is now shipping.

Modeled after its Suprima, the PC IP software codec essentially is a Suprima in a software version. Algorithms available include G.722, MPEG Layer II, Layer III and MPEG4. Operating systems of Windows XP and higher are required.



President Alvin Sookoo said the product is in response to clients who want the convenience of Suprima's performance combined with portable software. "This is particularly beneficial for spot news coverage and press conferences," he said.

Any broadband or wireless connection will enable reporters to transport live or edited audio via IP from a remote event back to the studio, he said, without having to worry if an ISDN connection is available.

Info: www.musicamusa.com

Radio 'All in One': Audemat's Digiplexer 246

Autemat is offering its Digiplexer 246, which complements the Digiplexer 2/4 (1U) launched a year ago.

The Digiplexer 246 is a 3U unit with a large touch screen to perform major adjustments without connecting a PC; it includes an FM/HD/DAB digital audio processor (two- or four-band), RDS and stereo generators, transmitter remote control capabilities, new backup audio over IP capabilities and a optional built-in FM exciter (20 or 100 watts).

The Digiplexer series provides an analog feel to the sound but with accuracy expected from a digital processor, the company says. Audemat offers 10-day free trials.

Also new is the Relio, a 1U enclosure facility management unit that provides 64 digital inputs, 64 digital outputs and 24 analog inputs, four serial ports (RS-232, -422 and -485), two Ethernet ports, four USB ports and a phone line connector.

It is now delivered with ScriptEasy V2 graphical software that includes the new MasterView viewer.

MasterView is a graphic user interface that allows creation of multiple "views" where users can see information from and control remote equipment over a network connection. Drag and drop I/O data and logic functions to generate monitoring and control scripts.

Also new is a voice DTMF interface with an included library of 700+ words and the capability to upload user-created voice files. Contact Audemat to schedule a Webex demonstration.

Info: www.audemat-aztec.com

Logitek Enhances Console Lineup

Logitek has made enhancements to the company's console systems.

They include additional support for 5.1 mixing; new capabilities for the vScreen user-configurable GUI; and expanded trigger table sizes for more complex automatic functions.

These enhancements are available for Logitek's Audio Engine router as well as the Mosaic, Remora and Artisan control surfaces.

The company this spring also offered a sneak peek of next-generation audio over IP technology that is under development and planned for availability later this year.

Also on display in the Logitek NAB booth was a new freestanding console stand, shown, that is custom made for Logitek and available to accommodate three console frame sizes.

Info: www.logitekaudio.com

DaySequerra Adds Analog Mod Monitors

DaySequerra, which makes HD Radio modulation monitors and HD Radio tuners among other pro audio/broadcast gear, has debuted a line of HD Radio-ready analog mod monitors as well as new remote control and diagnostic software.

The company showed a working model of its M2A-FM HD Radio-Ready Analog FM Modulation Monitor at the spring NAB show.

"This moves DaySequerra into the larger world of analog FM broadcasting, both in the U.S. and internationally," a company spokesman said. DaySequerra also showed the M2A-AM monitor.

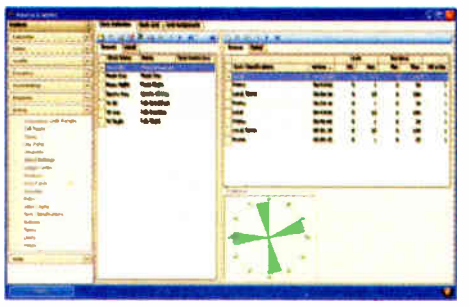
Both feature high-level and antenna inputs, 20 station presets, LED bargraph displays of modulation and carrier level, alarms for audio level, audio peak and RF level. The monitors have analog and AES/EBU audio outputs. An Ethernet option is available, allowing DaySequerra remote control software to control the monitor, log data and send e-mail alerts.

Info: www.daysequerra.com

Aquira Is Part of New RCS Strategy

RCS says it has outlined a new integration-centric mission statement, and has spelled out system launches to achieve it.

Its new traffic and business software, Aquira, enables users to run multiple stations from one computer. One person can control the accounts, orders and logs of hundreds of stations, according to the company. A client can sit at her computer, click a few buttons and her spots automatically upload to multiple radio stations. The clock view is shown.



RCS says its theme and goal of total integration continues with the new Zetta digital studio automation for radio stations.

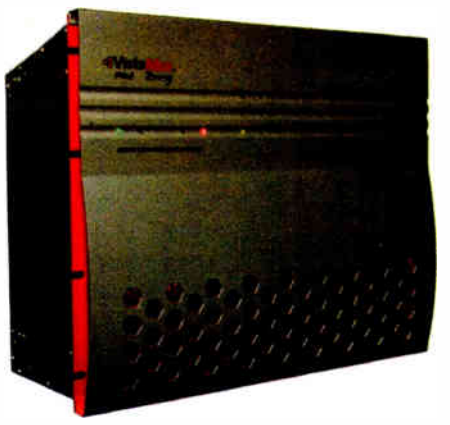
With GSelector, Zetta and Aquira working together, radio stations can sell spots, book business, schedule logs, schedule music and promos and playout audio in one suite of programs. Zetta will not fully launch until early 2009.

Info: www.rcsworks.com

Harris Debuts VistaMax Tools

Harris debuted a set of software tools for its VistaMax audio networking and management platform for use in the studio.

VistaTouch is a Windows PC client application that expands access to common tasks



with a visually-oriented presentation that provides system-wide control functionality.

Features include user-activated "Image Panels" to initiate frequent, show-specific and daypart requirements; and visual enhancements associating predefined Picture or Live webcam images with each Image Panel.

For STL delivery, Harris introduced license-exempt radios for wireless STL support for broadcasters unable to secure dedicated T1 or 950 MHz RF connections. Harris Stratex Networks LE3000 radios offer bidirectional support for HD Radio broadcasters to enable two-way communication to support Ethernet-TCP traffic. Harris says its wireless connectivity also reduces costs for broadcasters by eliminating the monthly expenses incurred through leasing T1 lines.

The company introduced two transmitters: the ZX5000, a 5 kW transmitter for analog FM and HD Radio that consolidates the transmitter, exciter and signal processing gear into a single-rack solution; and the DMB 670-4000 to support high-power T-DMB transmissions for digital radio in international regions that support the standard.

The ZX5000 also can be used in an end-to-end HD Radio transmission chain with Harris' new HDE-200 Exporter to fortify the E2X (exporter-to-exciter) protocol.

Info: www.harris.com

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APT Solves HD Radio STLs

APT is out with an audio codec for HD Radio STL applications, the WorldCast Horizon HD.

A duplex stereo codec, WorldCast Horizon HD enables the delivery of FM and HD content from studio to transmitter site. With a T1 and Ethernet interface, broadcasters can use

existing T1 links for the FM transport, and send HD content as a UDP stream embedded in the T1 link, eliminating the need for additional bandwidth. The HD content is presented back on an IP port at the remote/transmitter link.

As a fully duplex device, WorldCast Horizon HD allows off-air monitoring or an independent channel to backhaul RPU feeds and satellite down-linked audio. An RS-232 port is available for PAD and contact closures for remote control.

APT also announced that its IP codecs now provide support for SIP/SDP/RTP, in accordance with the EBU's N/ACIP recommendation; and debuted the linear audio module for the WorldNet Oslo. With the new module, the WorldNet Oslo delivers uncompressed audio quality over both IP and T1 links. It also offers an MPEG Layer II option, and Enhanced apt-X coding.

Info: www.aptx.com

WVRC-8 Is Broadcast Tools R/C

Broadcast Tools displayed its line of broadcast "problem-solvers" at the Broadcasters General Store exhibit at the spring NAB show. It included a Web- and voice-based transmitter remote control, the WVRC-8.

The WVRC-8 lets users control transmitter operating parameters by voice command or by Internet access via the Web. The analog, status, silence and temperature sensors, and power failure channels, can be programmed to dial a number and e-mail (up to four individual e-mail addresses), which allows different alarms to go to different recipients.

The unit can be programmed for dial-up operation using the common HyperTerminal program; the Java applet allows programming via a Web browser.

Also on display: The new HPA-2 Headphone dual-input headphone amplifier, which monitors two independent stereo sources. It can be mounted on a desktop or under a counter, and with optional adapter hardware, mounted in a countertop or an announcer's turret.

Info: www.broadcasttools.com

Bext Shows FB, XL Products

Bext says packing more power into smaller packages has led to the development of its FB2000 and FB3500 solid-state FM amplifiers, and the XL2000 and XL3500 FM transmitters.

These models occupy 4 RU of space in a 19 inch rack, and as the model numbers suggest, make either 2 kW or 3.5 kW of RF.

The amplifiers are broadband and the transmitters are frequency agile. Each model has self-contained harmonic filters and an EIA 7/8 inch flange. The company says you can connect MPX audio up to either XL model, or an exciter to either FB model, find a length of coax with a 7/8-inch EIA flange on one end and an antenna on the other and begin operating.

Command and control are available via a multi-purpose front-panel LCD with menu select functions, or connector on the rear panel using off-the-shelf Microsoft Hyperterm running on any PC. Each model is available for use with either single-phase 208-240 VAC or three-phase power.

Info: www.bext.com

Audio-Technica Brings USB Functionality To AT2020

Audio-Technica showcased its AT2020 USB cardioid condenser microphone, suitable for digitally capturing music or acoustic audio sources via recording software.

Based on the design of the AT2020, it adds a USB digital output and features a low-mass diaphragm engineered for extended frequency response (20–16,000 Hz) and clean transient response. Sample rate is 44.1 kHz.

The cardioid polar pattern reduces pickup of sounds from the sides and rear, and improves isolation of the desired sound source, according to the company. Its low self-noise makes it suitable for use with digital recording equipment. The pivoting, threaded stand mount attaches for precise mic placement. A tripod desk stand with folding legs offers a portable tabletop base.

Audio-Technica also displayed its ATH-M50 studio monitor headphones, which boast isolation and comfort during long mixing sessions. The closed-back headphones offer high SPL capability, coiled cable and 1/8 inch plug with 1/4 inch adapter.

Info: www.audio-technica.com

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BSI Debuts Op-X for Single-, Multi-station Ops

Broadcast Software International is showcasing its Op-X studio automation system for both single- and multi-station environments.

The system has been in fulltime operation at more than 30 stations for the last 18 months, according to the company.

Highlights include touchscreen capability, voice-tracking and a user-friendly interface. BSI says engineers will enjoy Op-X because it is easy to install and maintain, has automatic backup features and has a clock builder for handling of satellite broadcasts. Station managers will appreciate its "relentless" up-time.

"Op-X provides a multi-tiered approach to radio automation, and will greatly enhance market clusters and network heavy formats," said Marie Summers, BSI sales manager. "All the tools you need for any type of station, live or automated, satellite or local, in any combination."

BSI this spring also displayed the latest version of its Simian automation system. Simian 1.8 features full automation or live assist; automatic weather and time announcements; voice track editor; background recording; touchscreen capability; and it imports and merges traffic and music logs from other scheduling systems.

Info: www.bsi-usa.com

Belar Monitor Too New for a Name

Belar Electronics Laboratory this spring demonstrated a prototype of a new analog FM monitor that accepts high-level or "off-air" RF.

It can replace up to seven different monitors by monitoring FM modulation, stereo, SCA and RBDS. It also displays the RF, baseband and audio spectrums.

The substitution of floating point digital signal processors for fixed point processors improves the dynamic range of most measurements by 20 dB (from 80 dB to 100 dB), according to the company. The new monitor is scheduled to ship in December.

Belar also added features to its FM HD monitor, the FMHD-1. The updated monitor indicates whether the analog and digital signals are in phase or 180 degrees out of phase. New metering functions include FM total modulation, L+R, L-R and pilot level along with the previous left and right channel levels.

Info: www.belar.com

Graham Partners With Paravel, Debuts Modulux Premium

Graham Studios announced a partnership with Paravel Systems, a provider of open-source solutions for broadcasters.

Paravel System's flagship product, Rivendell automation, uses a dedicated hardware platform instead of Windows-based PCs to provide immunity to network viruses and other digital "malware."

The companies say the partnership provides customers with a single source for meeting their studio furniture and automation needs.

Graham Studios also displayed its latest furniture, Modulux Premium, at the spring shows. Features include hardwood trim, rounded corners and exotic woods and surfaces, according to the company. "White-glove" shipping and installation services also are available.

Info: www.graham-studios.com

Valcom VAS-2030 Suitable for Transmit, Receive

Valcom's VAS-2030 high-frequency dipole antenna is a self-supporting vertically polarized broadband antenna covering the frequency range of 20 to 30 MHz. It can be used in transmit or receive mode.

Valcom says the VAS-2030 is designed to withstand severe environmental conditions. The antenna radiating elements are housed in a fiberglass radome with an integral fiberglass mounting flange.

The VAS-2030 can handle 1,000 watts peak envelope power, and 500 watts average RF power over the entire frequency range, according to the company. It has a VSWR of less than 2.5:1 over the 20–30 MHz band, and has been tested to MIL-E-16400 for shock/vibration and environmental conditions.

Valcom also offers the Model AS-5087/SR, a 10 foot probe antenna that can be used for receiving low-frequency signals between 40 kHz and 548 kHz when used with a suitable matching transformer. The AS-5087/SR is lightweight, rugged and requires little to no maintenance, according to the company.

Info: www.valcom-guelph.com

Davicom Goes Micro With Low-Cost MAC

Davicom, a division of Comlab, has added to its MAC (monitoring, alarm and control) Series of remote control equipment, which already consists of the MiniMAC2, MAC208 and MAC216, each with increasing input/output ports.

In July, Davicom will begin shipping the MicroMAC, the low-cost version of the MAC.

MicroMAC runs the same firmware as the larger systems, so the control, monitoring and logging capabilities are still there. The number of metering inputs, status inputs and relay outputs is reduced to eight of each to reduce cost. The limited I/O should satisfy the needs

of simple AM and FM transmitter sites, translator sites and relay sites, according to Davicom.

Additionally, MicroMAC can be integrated into a network of other MAC units for a unified user interface to system operators and technicians.

Davicom also announced a firmware upgrade for existing MAC systems that adds a full SNMP implementation, allowing sites to be monitored and controlled through SNMP management systems. In addition, a secure (HTTPS) Web interface has been added, allowing access to the system without having to load software on remote computers (including mobile devices such as the BlackBerry).

The Web interface includes a text messaging capability so users logged in to the system can send messages between sites. Site audio also can be monitored through an IP stream in addition to the existing telephone line audio monitoring capability.

Info: www.davicom.com

PMD620 Adds USB, SD, OLED Display

Marantz is excited about its PMD620 handheld digital field recorder, which offers 24- and 16-bit recording and two built-in condenser mics.

Users have a choice between stereo or mono recording modes; and uncompressed 44.1 kHz WAV files or three levels of MP3. Additionally, the PMD620 is the first in the PMD series to use the SD flash memory card.

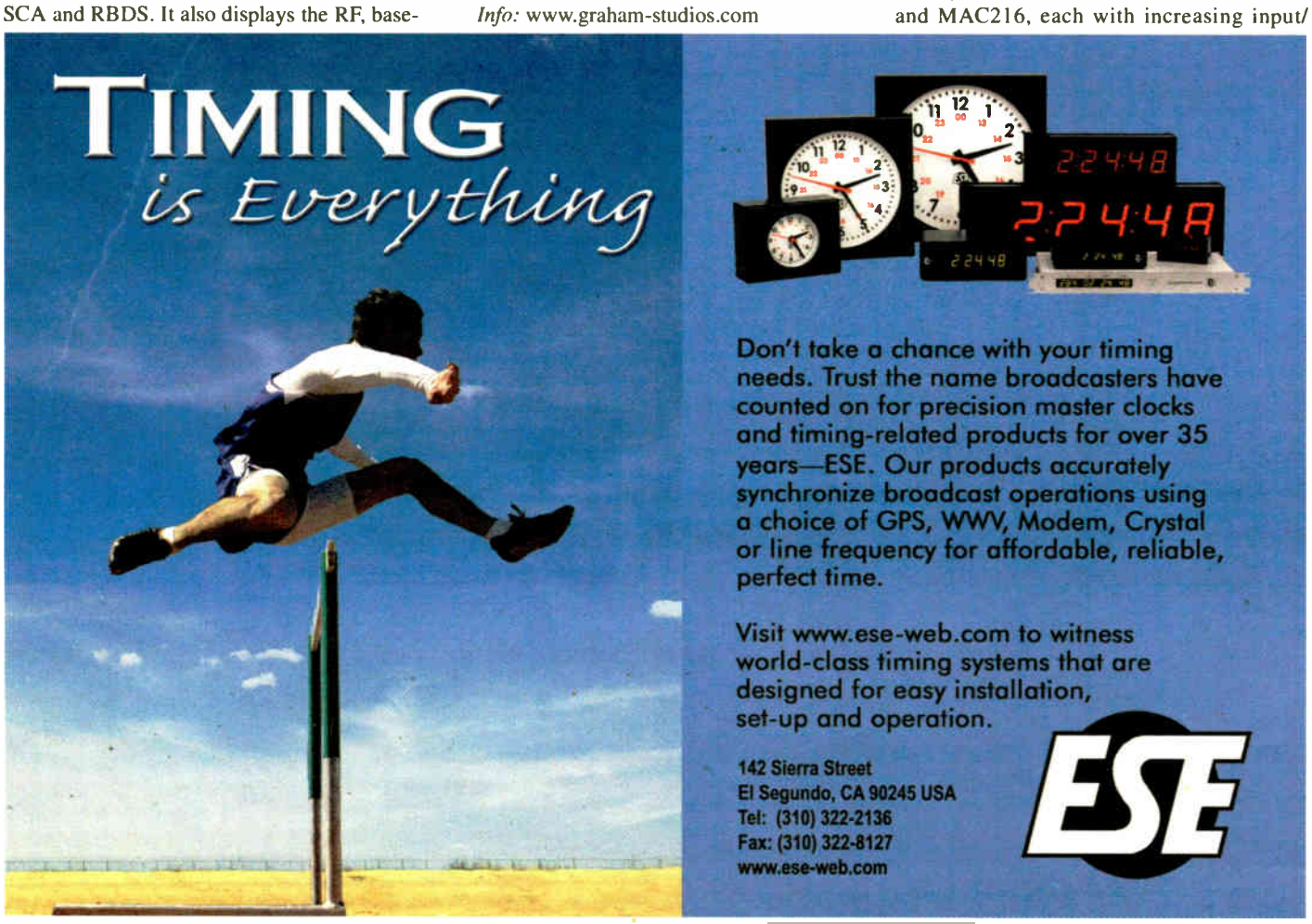
Features include a USB 2.0 port, one-touch recording, OLED display screen, line and external mic inputs and an external mic output. The screen is configurable, offering two font sizes to allow for more information on screen. "Level" and "peak" LEDs indicate the status of the input signal. Users can toggle between four display screens providing elapsed time, time remaining and other data.

The PMD620 also offers editing capabilities. "Copy Segment" editing uses cut-and-paste editing to create a new sound file, which can be up/downloaded via the USB port. "Skip Back" allows transcribers to review recorded audio from 1 to 60 previous seconds.

Marantz this spring also showed its PMD580 rackmount compact digital recorder with network connectivity. Via its Ethernet port, the PMD580 can be positioned as a network device, allowing users to set menu parameters, schedule recording events and transfer and archive audio files, all by using a Web-based GUI interface from a PC or Mac in the network.

PMD580 features include balanced XLR I/Os, Ethernet and RS-232 inputs, AES/EBU interface and 24 bit resolution.

Info: www.d-mpro.com



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Barix Adds aacPlus v2 To Exstreamer-110

Barix is offering the Exstreamer-110 IP audio decoder, featuring aacPlus v2 functionality. The company says the unit is suitable for radio broadcasters who require point-to-multipoint distribution and want to take advantage of the reduced bandwidth or higher quality afforded by aacPlus v2.

"Radio broadcasters can achieve the same quality as MP3 and significantly reduce their transport costs by cutting the required bandwidth in half using aacPlus version 2 in the Exstreamer-110," said Johannes G. Rietschel, CEO and founder of Barix.

"The alternative is to significantly raise the audio quality by using the same bit rate with aacPlus v2 compression as previously used with MP3. This means broadcasters that upgrade from a 128 kbps MP3 stream to a 128 kbps aacPlus v2 stream will experience exceptional audio quality."

Features of the Exstreamer-110 include a backlit 2 x 16 character LCD to display stream metadata or file information such as station identification and artist/title information. The Exstreamer-110 also includes a relay to trigger an EAS stream, station ID or local announcement. A remote control receiver enables channel selection from various audio streams, which the company says is ideal for redundancy protection.

Info: www.barix.com

Yellowtec Expands m!ka Accessory Options

Yellowtec has new accessories for m!ka, its modular system for mounting microphones, TFT flat panels screens and nearfield monitors.

The Mic Arm to MSS Pole Adapter (#YT3213) lets users mount up to four Microphone Arms on a single MSS Pole, which the company says is useful for radio guest tables.

The Genelec 8020 to VESA 75 Adapter (#YT3237) enables two Genelec nearfield monitors to be mounted above two TFT screens on a MSS Pole, suitable for A/V edit suites.

Monitor Arm XL with extended reach (#YT3230/65) supports three TFT monitors mounted side by side on a MSS Pole, and lets users build a larger isosceles triangle for nearfield monitoring when holding Genelec monitors.

m!ka can support microphones weighing up to 4.5 pounds. Adjustments for various weights are made at the joints using thumbscrews. The company says the joints remain virtually silent during position adjustment.

The MSS Pole, available in 17, 21 and 33 inch lengths, serves as the backbone of the m!ka system. The extruded aluminium sheath has four profile slots and a 16 mm inner hole. Broadcasters needing a bigger operating radius for their mic can plug the microphone arm into the top of the MSS Pole as an extension for the mic arm, and as a support for m!ka monitor mounts.

A red "Mic On" light is featured on the 800 mm microphone arm. Connections for the mic and red light are made with a combined connecting cable, optionally equipped with a five-pin XLR plug.

Additional accessories include m!ka Bushing; m!ka Table Clamp; and the m!ka Pole Desktop Mounting Kit.

Info: contact distributor RAM Broadcast Systems at (800) 779-7575 or visit www.yellowtec.com

Moseley Demos Digital STL

Moseley is promoting its digital STL products with Ethernet capability for HD Radio and multicasting as well as IP network connections to transmitter sites.

"In addition to HD Radio, Ethernet connectivity brings new innovative and money-saving IP-based applications to remote transmitter sites," said Dave Chancey, broadcast sales manager for the company.

Starlink SL9003Q-2SLAN, shown, provides AES audio and UDP IP for HD Radio and multicasting on the 950 MHz band.

Starlink SL9003T1 STL/TSL for T1 circuits or wideband microwave links transports bidirectional digital audio and IP for HD Radio and multicasting plus an IP LAN connection, remote control and telephone extension.

LanLink HS 900D license-free data radio is a 1 megabit bidirectional Ethernet and serial data link for IP-based equipment control, RBDS, security surveillance and Internet and e-mail.

"Just the ability to mount an IP surveillance camera at a remote site can avert a copper theft that could cost the station thousands to repair," said Chancey.

Info: www.moseleysb.com

Accessorize

JK Audio's Beltpack Series Is Just What Your Belt Has Been Waiting For.

Making ultra-compact professional audio tools has always been JK Audio's specialty. Our Beltpack Series takes compact/pro to new levels. Incorporating Bluetooth Wireless Technology, our **BluePack** and **RemoteAmp Blue** provide wireless connectivity, via your cell phone, to just about any place you need to be.

BluePack allows field reporters and remote talent to conduct live man-on-the-street interviews through a cell phone equipped with Bluetooth. Mix the mic input (balanced XLR) and the 3.5 mm aux send for a 3.4 kHz station feed back through your phone (via Bluetooth) and/or grab a full-bandwidth mix from the stereo output to the recorder of your choice. Its professional microphone preamp and powerful headphone amp deliver the highest quality audio.

RemoteAmp Blue allows IFB monitoring through a cell phone equipped with Bluetooth Wireless Technology. This is a listen-only device designed for voice IFB or full-bandwidth stereo music listening. The line input jacks and separate volume controls allow wired operation in parallel with the Bluetooth connection.

RemoteAmp Two provides a wired, listen-only connection for mono IFB or full bandwidth stereo music listening. Separate volume controls for the XLR and 3.5 mm line input jacks allow a simple mix of mono and stereo sources.

Each has a powerful ½ watt stereo headphone amplifier that will cut through any crowd noise. **BluePack** and **RemoteAmp Blue** also pair to Bluetooth-equipped sound cards and music players in full-bandwidth stereo A2DP mode.

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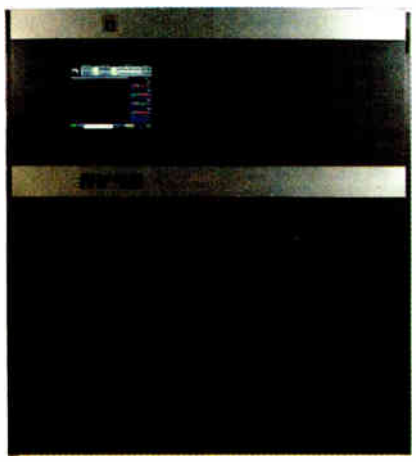
World Radio History

Nautel Has Solid-State Transmitters for AM, FM

Nautel debuted high-power solid-state AM and FM transmitters.

The HD-ready NV40 for FM, shown, offers a maximum analog power output of 44 kW. The NX50 for AM is the next generation of the company's 50 kW transmitter.



The NV40 offers three modes of operation: HD, hybrid and analog. Maximum power outputs are 32 kW in hybrid mode and 12 kW in HD mode. It has an integral digital exciter that supports adaptive pre-correction, and offers a plug-in upgrade to the HD Radio Exgine. The transmitter optionally offers Nautel's new HD Power Boost technology for more IBOC power.

Nautel says it designed the NV40 to occupy a footprint 60 percent less than that of comparable solid-state and tube transmitters.

The NX50 supports HD Radio modes with an internal DRM or Exgine IBOC generator. It provides adaptive pre-correction, 2.7 MHz Direct Digital Modulation and 88 percent efficiency.

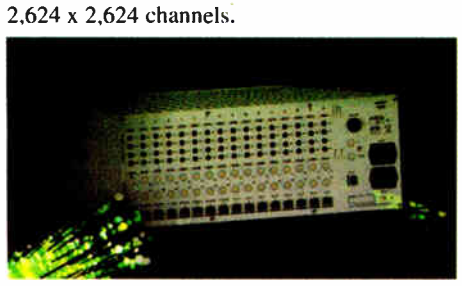
Both transmitters feature Nautel's new Advanced User Interface (AUI), a 17 inch color LCD screen with a range of configurable displays. The AUI includes real-time locus measurement; a spectrum analyzer; an IBOC modulation analyzer; and module-level monitoring, control and logging of functions. The AUI can be controlled by touchscreen or via a mouse and keyboard.

Additionally, users have remote access to transmitters via a Web browser.

Info: www.nautel.com

Klotz Venice: Big Routing for Big Facilities

Klotz Digital's new offering this summer is the Venice audio router, suitable for applications where multiple channels need to be routed such as large broadcast centers and switching rooms. It offers a routing capacity of up to 2,624 x 2,624 channels.



Venice offers full implementation and support of optical and coax MADI standard protocols as well as the company's Vadis fiber optic network. It has synchronization capabilities including AES sync, word clock in and word clock through. Principal functions are controlled via LEDs, status display and via an Ethernet port, allowing Venice to be fully integrated into the VADIS control network.

In addition to Vadis and Klotz's Octo-Bus networking, Venice is compatible with other Klotz components and technical equipment such as Routing Control Panels (RCP), Vadis D.C. II and the Decennium console. Venice has redundancy for reliability and failure safety. A hot standby router guarantees full system redundancy.

Klotz also featured new Vadis workflow modules such as Vadis Shared Control Management, Vadis Remote Source Assignment and Vadis Air Chain Management.

The Vadis SCM module manages the use of sharing resources through a LAN infrastructure such as freely assignable announcer booths and remotely controlled mic preamps. The RSA module allows the studio console selection of remote router sources in the same manner as local sources. ACM allows management of the workflow from studio to air chain from anywhere in the station.

Info: www.klotz-digital.de.

AEQ Releases Phoenix in the Studio

AEQ has introduced the Phoenix Studio IP audio codec, which is compatible with the current N/ACIP standard and includes two expansion slots for connectivity via regular POTS lines, ISDN, V35 or GSM to remote sites.

The Phoenix occupies 1 RU of rack space and is designed as a complementary unit to AEQ's Phoenix portable codec, introduced last year.

In addition to the Phoenix, AEQ debuted a line of analog audio boards targeted to medium- and smaller-market broadcasters. Occupying a small footprint in the studio, the board includes features found on larger consoles such as dual program busses, four mic/line inputs, on-board cueing and built-in monitor amplifiers.

Info: www.aeqbroadcast.com

Burli Promotes Integrated Systems For News

Burli Software offers acquisition, editing, organization and delivery in an integrated package to get the latest news in the system and on the air quickly.

As various data and audio sources such as newswires, audio feeds, MP3s and e-mails come into the newsroom, Burli automates the collection of these sources and tags each one according to user preferences. Reporters in the field can file by telephone, e-mail, the Web or FTP; their material — text and audio — appears in the system automatically.

Sources like faxes and audio appear on the screen of any Burli workstation. Virtual Network connections allow users to access sources, locally or from remote locations, or sister stations.

Integrated single and multi-track audio editors, and companion text editors, include features such as unlimited undo, edit preview, cross-fades, normalize, MP3 editing and sample-level zoom. A radio prompter places audio tracks where they appear in the script, and allows further editing "on the fly" so editors can make changes to copy or audio as the broadcast happens.

Audio is played to air directly from the system, or it can be inserted into most popular automation systems.

Info: www.burli.com

ARC Is New Line From Arrakis

Arrakis Systems debuted several product lines including the ARC series of consoles, such as the ARC-15.

The company says this "general purpose" console is designed for on-air radio and production studio applications. Channels 1 to 5 can be internally selected as either mic or stereo line channels. Channel 15 is a dedicated telephone interface channel, and Channel 14 can be configured with a Windows PC USB interface for use with live on air, automation and production software, including Digilink-Xtreme.

Consoles need countertop space and Arrakis provides its line of Accent studio furniture. The contemporary-style furniture is trimmed in brushed metal panels, and available in standard models as well as custom configurations. The hybrid metal frame and structural panel design allow stations to tailor the final product to fit any studio's size and shape, according to Arrakis.

Info: www.arrakis-systems.com

RAMA Is Metadata Appliance From ENCO

In addition to displaying its DAD automation system, ENCO Systems introduced the RAMA metadata appliance this show season.

RAMA lets broadcasters compose and send data to HD Radio exciters, RDS encoders, Web sites and other display devices in real time, independent of any automation system.

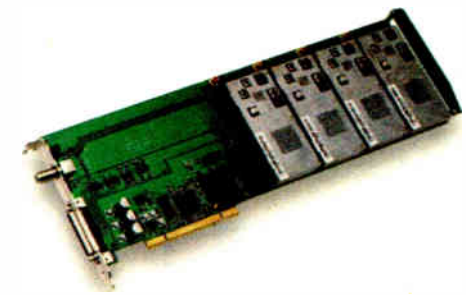
RAMA is configurable via a Web browser-based interface. The PADLive feature allows user definition of three priority levels of Program Associated Data messaging: Local, Manual or Instant Messaging. This feature lets the user send text messages to different distribution channels at will. Up to 10 destination channels, such as RDS encoders, HD Radio Importers and station Web sites, can be addressed simultaneously.

RAMA also can integrate local and remotely generated metadata as well as handling metadata for recorded network programming. It also supports iTunes tagging for use with HD Radio broadcasts.

Visit www.enco.com

HD Radio Comes to AudioScience

Known for its multichannel PC audio sound cards, AudioScience made a leap this year into the HD Radio market with its new ASI8914 HD Radio tuner card.



The ASI8914 is a universal, full-length PCI card that contains four HD Radio/AM/FM tuners, and is designed for use in HD-R broadcast monitoring and auditing. Each tuner may be set to an independent analog or HD-R station.

When it is plugged into a standard full-length PCI slot, the audio from each tuner is presented to the computer host as a mono or stereo record stream that may be accessed through a 32 bit PCI bus master interface.

Also introduced this year is the ASI8921 multi-channel tuner card, designed to fit in a half-size PCI slot. Compared to its predecessor ASI8700, power dissipation is reduced by the use of silicon radio tuners, which replace the can tuners on the ASI8700 series. The tuners now receive and decode RDS/RBDS data in real time.

Finally, AudioScience introduced a 64 bit Windows Vista WDM audio driver. The driver provides 64 and 32 bit application support for current AudioScience sound cards when used in a PC running the Vista O/S.

Info: www.audioscience.com

Wegener Adds 6420 to iPump Audio Server Line

Wegener has celebrated 30 years in business by demonstrating its line of broadcast receivers including the iPump 6420 radio broadcast media server, Unity 4600 professional media receiver, Unity 4650 broadcast media receiver and NAVE IIc Nielsen audio encoder.

These products offer solutions for linear and file-based media distribution, according to the company.

Additionally, the company exhibited Compel II, which retains the features of Compel while streamlining the user interface and easing network management for dynamic media distribution by content providers and broadcasters. The demo highlighted its improved database connectivity and multi-client platform with multi-level user controls, as well as support for satellite and terrestrial delivery, and live and file-based workflows.

Wegener also showed its solution for hybrid network control, a software option/upgrade for Compel that gives broadcasters control over a mix of satellite and IP terrestrial delivery paths, and the flexibility to select the most cost-effective means of reaching receiver sites without compromising network firewall security.

Info: www.wegener.com

World Radio History

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View the archive at:
http://www.radioworld.com/webinar-archive.shtml/

Sponsored by: BE HARRIS nautel

World Radio History

Genelec Has SE System For Nearfield Monitoring

Genelec's summer offering is its SE (Small Environment) DSP monitoring system, which it says solves many of the acoustic problems associated with small recording and mixing environments.

It is suitable for nearfield monitoring, mobile/location recording, digital audio workstations, broadcast control rooms and surround sound systems.

The SE DSP monitoring system combines the SE7261A 10 inch DSP subwoofer with 8130A digital input active monitors (5 inch bass drivers and 3/4 inch tweeters), for configuration as a sub-assisted stereo or multichannel reference system.

The SE7261A DSP subwoofer provides the necessary network connections to the host computer for software control, and supplies DSP resources through its high-pass AES digital outputs to the 8130As.

The system also features AutoCal GLM (Genelec Loudspeaker Manager) SE software to help speed users through system setup and complete acoustic calibration.

The SE7261A active DSP subwoofer offers eight-channel AES/EBU bass management and AutoPhase sub integration. The eight-channel high-pass outputs to 8130A each have two notch filters, frequency response of 19 Hz to 120 Hz and level alignment.

The complementary 8130A active monitoring system features 192 kHz/24 bit digital audio interface, and Directivity Control Waveguide technology for frequency balance in difficult acoustic environments.

The GLM.SE software package includes cabling wizard for setup; calibration wizard for automatic calibration; and a Genelec calibration mic.

Info: www.genelecusa.com

Orban/CRL Demos AudioBridge, Loudness Meter Software

Circuit Research Labs, parent company of Orban/CRL, has introduced the Autogram/CRL AudioBridge.

Features include a multi-format audio interface with analog, AES/EBU, USB 2.0 and IP Audio connectivity. Each input can be routed to virtually any output, according to the company.

The AudioBridge features high-resolution 24 bit A/D and D/A conversion with selectable conversion rates up to 192 kbps samples per second. CobraNet IP audio allows real-time digital audio transmission over an Ethernet network. The company says other IP Audio standards will be available soon.

The AudioBridge's USB port supports streaming audio to or from Windows or Mac PCs. AudioBridge has correct inter-channel clocking for accurate time alignment and phase. It uses the Microsoft Windows XP USB Audio Driver, so there is no extra driver to install.

Its AES/EBU output can be synched to an external AES-11 digital audio reference signal or to the AES/EBU input. The AudioBridge offers an integral headphone amp for monitoring and an intuitive menu interface for configuration and status information in a 1U rack-mountable chassis.

Orban also won a Radio World "Cool Stuff" Award for its loudness/level metering software for Windows XP and Vista, the first of a series of Orban meters. The software simultaneously displays instantaneous peaks, VU, PPM, CBS Technology Center loudness and ITU BS.1770 loudness. Meters include peak-hold functionality that makes the peak indications of the meters easy to see.

The software accepts two-channel stereo inputs. The VU and PPM meters are split to indicate the left and right channels. The PPM meter also displays the instantaneous peak values of the L and R digital samples.

Additional features including logging, surround monitoring and oversampled peak measurements that accurately indicate the peak level of the audio after D/A conversion.

Info: www.orban.com

Listen Live While Online With StreamGuys

Streaming provider StreamGuys demonstrated its Embedded Flash Media Player for live and on-demand online streaming.

Listeners can roam a station's Web site while listening to the live program stream, and then retain the stream after navigating to other Web sites.

The open design lets the station incorporate branding and technical features on top of the basic template, while also providing a cross-platform approach that facilitates streaming on Flash-enabled Web browsers for PC and Mac systems.

The cross-platform approach is made viable through StreamGuys' use of Wowza Media Servers in the backend infrastructure to re-stream live SHOUTcast and Icecast streams received from the client's studio location.

StreamGuys also told convention attendees this spring about Premier Productions Radio Network using a joint Barix audio-over-IP hardware and StreamGuys Internet distribution solution to deliver live and recorded sports programming to 35 radio stations in Minnesota, North Dakota and South Dakota.

A live or recorded feed is sent from a Barix Instreamer-100 audio encoder to Premier Productions Radio Network's studio in St. Paul, Minn., where a Barix Exstreamer-100 receives and decodes the program material. It is then mixed and sent out over the Internet through another Instreamer-100.

An aggragated server infrastructure from StreamGuys receives the feeds and transports them over a streaming network to point or multipoint destinations with the 35-station collective.

Each of the 35 stations has an Exstreamer-100 at their studios to receive and decode the signals, along with tone decoders to trigger ads, station IDs and to signal start and end times for each feed.

The screenshot shown is from the Aspen Public Radio Web site including the StreamGuys Embedded Flash Media Player. The station went live with the player in February.

Info: www.streamguys.com

Audessence Solves Audio Level Problems

Audessence offers ALPS audio processors for broadcast and pro audio applications.

The company says most audio processors today still employ techniques developed for

analog media. "But processing audio the 'old-fashioned' way works against digital perceptual coding, which results in that burbling, smeared and generally peculiar sound often accepted as being a property of the audio compression — be it from DVB, HD, Internet streaming etc."

It says ALPS offers an innovative approach to processing in the digital age. All models use Sure-Level, a real-time algorithm with a substantial capture range coupled with fast and unobtrusive response. This produces consistent program level with clarity, while creating fewer digital artifacts than traditional multiband processors, Audessence states.

Control options such as dayparting, IP and GPI interfacing are available; standard features include XLR balanced audio, AES3 I/O and control software featuring EasyMode.

Info: www.audessence.com

Sage Adds Features To Digital ENDEC

Sage Alerting Systems demonstrated the new features of its Digital ENDEC, which uses an internal AES/EBU interface, LAN support and a Web browser-based interface to support EAS users.

Added hardware features include 10/100 Base-T LAN support; two USB connectors for printers, additional serial ports and future expansion; four GPIO inputs and one additional contact closure for expanded control; AES/EBU digital audio interrupt with active switching; and 64 MB storage for log files. It also has eight optional USB memory sticks for up to 8 GB long-term storage of alert audio.

Added software features include Web-based control. Settings and functions can be performed from anywhere on the Internet, including initiating or forwarding alerts, and changing configuration. Several layers of security are provided, including IP access lists; HTTP/SSL is used to encrypt access.

Software is stored in flash and is updatable via the LAN or USB. Alert audio for originated alerts can be transferred via the Web interface. Alert audio for a pending alert to relay can be previewed via the Web interface using streamed audio. Any of the audio monitor inputs can be streamed to the Web interface.

The Digital ENDEC can trigger the relay or generation of an alert via the LAN or its GPIO interfaces. Optional Text to Speech support locally generates audio based on the

expanded text message available with the CAP protocol. ENDEC can optionally send e-mail when important events occur, such as sending and receive habits or loss of input on a monitor receiver.

Shown: "Dr. Endec," Sage founder Gerald LeBow, made a visit to the booth at NAB.

Info: www.sagealertingsystems.com

PSI Shows Medium-, High-Power Slant-V, Power-Tiller

Propagation Systems Inc. came to this year's convention expos with medium- and high-power versions of the Power-Tiller and Slant-V.

The Power-Tiller is an omnidirectional, circularly polarized FM broadcast antenna with copper and corrosion-resistant brass construction for good conductivity and longevity, as well as VSWR bandwidth.

It is available in high power (PSIFHR) for input power up to 60 kW, and medium power (PSIFMR) for input power up to 15 kW.

The elements are stacked in arrays of up to 12 bays for increased gain, and are end-fed from a support boom. For arrays requiring beam tilt and/or null fill, a center feed system is required. The entire antenna system including the feed is pressurized.

Each antenna is supplied with standard galvanized mounting brackets for round leg mounting on uniform cross section towers. Custom mounting brackets also are available. Fiberglass radomes are available for those antennas exposed to adverse weather conditions.

The Slant-V antenna consists of two shunt-fed dipole elements in a slanted V configuration forming a circularly polarized radiator. It also is available with vertically or horizontally polarized elements.

The Slant-V is available with "breakdown" elements to allow the dipole elements to be disassembled from the support boom. PSI says this reduces crating and shipping costs. Models include PSIFML for input power up to 4.5 kW; PSIFM for input power up to 12 kW; and PSIFH for input power up to 40 kW.

Info: www.psibroadcast.com

World Radio History

Independent Audio Intros Sonifex Ref Monitors

Maine-based distributor Independent Audio showed a new lineup of reference monitors from Sonifex.

The RM-2S4 has two LED meters and four stereo channel audio inputs, while the RM-2S10 has two LED meters and 10 stereo channel audio inputs. The RM-4C8 has four LED meters, with eight channel inputs.

Each model is a 1U rack-mount unit providing loudspeaker monitoring and accurate, high-resolution metering of up to four or 10 stereo audio sources. More sources can be monitored with an optional expansion card. Sources may be in any mixture of analog and AES/EBU digital formats, with sample rates up to 192 kHz supported. A five-band parametric EQ can be used to tailor the unit for the specific space.

Levels are displayed on a pair of 53-segment bar graph meters, with a choice of seven modeled scales/responses to suit different applications and local preferences.

Info: www.independentaudio.com

ESE Shows Master Clock/Time Code Generators

ESE offers the ES-188, an NTP referenced master clock and time code generator.

It displays nine digits (day of year, hour, minute and second) of time as received via a user-selected NTP server. The ES-188 simultaneously generates several types of time code (ESE-TC89, ESE-TC90, USB, RS232C/ASCII, SMPTE/EBU and IRIG-B) and a 1PPS signal. These outputs allow the ES-188 to interface with new or existing computers, automation and clock systems.

Alongside the ES-188, the company also has introduced the ES-160U, a crystal-based master clock/time code generator. The unit employs a temperature-compensated crystal oscillator (TCXO). which provides the ES-160U with an accuracy of one second per month. Six 0.56 inch yellow LEDs display real time while the unit simultaneously generates several types of time code.

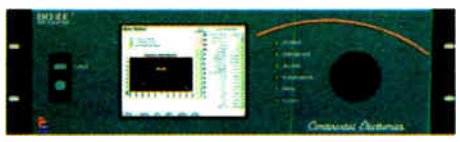
Info: www.ese-web.com

Continental Shows New FM Digital Exciter

Continental Electronics has introduced its new 802E^{x} FM Digital Exciter, calling it a "one-box" HD solution that incorporates embedded exporter and exciter technology into a single product.

The company promotes the exciter for advanced performance, easy installation/configuration and innovative application of soft updates and firmware plug-ins.

Features include proprietary, fully-adaptive, real-time, forward precorrection, allowing changes in transmitter or RF system performance to be sensed and corrected; software-selectable HD power levels of –20 dB, –10 dB or any power level in between; high-res color LCD screen for clarity and accuracy; stereo generator; audio delay (up to 16.4 seconds); synchronization, using GPS 10 MHz



signal; multiple AES3 digital audio inputs; AES3 audio output; standard composite input and two baseband SCA inputs.

Continental is offering a firmware plug-in embedded exporter option to reduce cost and HD system complexity, saying this will help medium- and small-market broadcasters. Other CEC plug-ins are planned.

Continental also is offering the new 800E^{xp} Embedded Exporter, a next-generation HD Radio exporter based on embedded DSP technology, as reported here last issue.

The company says the exciter's reliability is increased significantly by the use of proprietary technology that eliminates the need for GPS synchronization, when the exciter is used with the new embedded exporter.

Info: www.contelec.com

Audio Precision Offers Mini Audio Proof in 250 ms

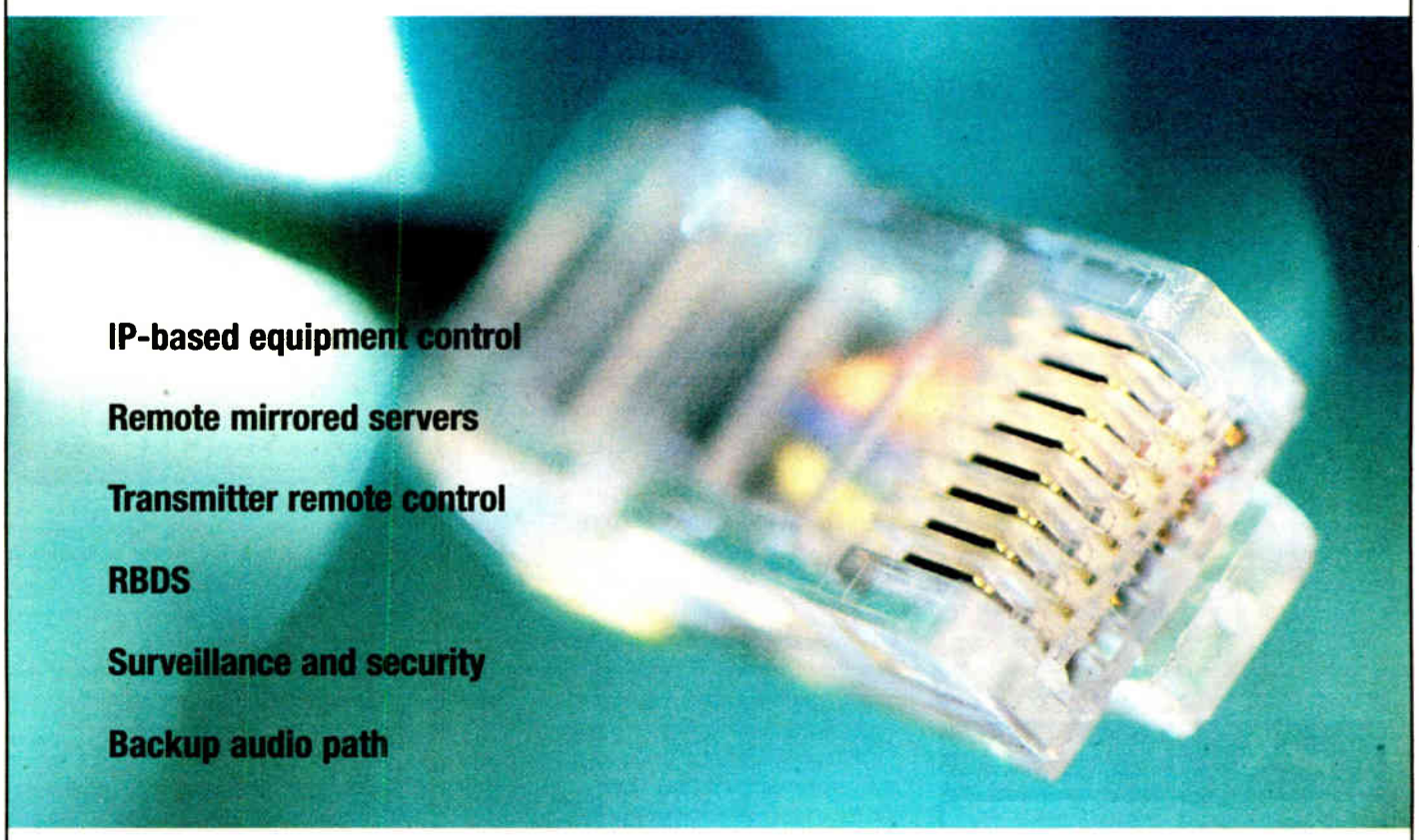
Audio Precision showed the HST multi-tone tester, which is available for several of its audio analyzers.

A multi-tone signal can be generated by the instrument, or recorded for later playback. The application uses a multi-tone that includes 20 Hz, 1 kHz, 3 kHz, 10 kHz and 20 kHz on each channel. The instrument is "armed" to listen for the multi-tone signal. The intelligent trigger ignores program material and triggers only when the specific test signal is detected. When triggered, the instrument measures DC offset, frequency response, phase response, distortion, noise and crosstalk.

Stations with multiple transmitter sites and transmission paths can place analyzers throughout the transmission system, and then, on occasion, sneak in the test signal. Analysis of the transmission quality is immediately available.

Info: www.ap.com

Ethernet path...



to the transmitter site.

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World Radio History

DH42 Blends POTS, VoIP

Comrex Corp. announced plans for a new digital telephone hybrid.

The DH42 accommodates two traditional POTS lines as well as two Voice-over-IP (VoIP) lines in one single-space rack enclosure.

Essentially a four-line conferencing hybrid, DH42 allows callers to be put on-air with separate send and receive paths, filtering, AGC and control functions.

VoIP telephone lines offer a low-cost alternate to traditional analog POTS lines, Comrex notes; the technology is also found in SIP-based PBX telephone systems.

"DH42 offers broadcaster the ability to interface their Internet-based VoIP lines or VoIP PBX lines with audio consoles and other professional broadcast audio equipment," the company states.

Comrex also signed an agreement with Fraunhofer IIS to license its new AAC-ELD (Enhanced Low Delay) coding algorithm for use with the Comrex Access line of audio codecs.

Photo by Mary Ellen Dawley

Technical Director Tom Hartnett stated, "AAC-ELD combines the best aspects of low-delay audio coding with Spectral Band Replication to reduce bit rate. This combination creates a coding algorithm that is uniquely suited to real-time audio transmission over IP circuits."

The algorithm is offered as part of the AAC Option package for Access codecs and is free to current owners of the Access AAC Option.

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www.audessence.com

The company also showed its Studio Telephone Access Center this spring. Shown, Chris Crump shows the Comrex STAC to Kerry Trout from Penn State Public Broadcasting.

Info: www.comrex.com

Advanced Wattchman Monitors Two Lines At Once

Coaxial Dynamics is featuring its Model 81094 Advanced Wattchman monitor/alarm for analog and digital broadcasting.

It is intended to be the first in a series of Internet/intranet accessible Advanced Wattchman wattmeter/alarm systems that monitor power in two transmission lines with one controller.

The 81094 monitors two lines simultaneously. It monitors forward and reflected power in the main transmission line as well as on an additional line such as the driver or power to the reject load without the need for an additional coupler. It also may be used to monitor a separate transmitter at the same location.

The display shows power on both simultaneously. Operating conditions also may be displayed on a PC from any location on the Internet/intranet.

The Advanced Wattchman works with a series of specialized line sections from 7/8 inch to 6-1/8 inch, and Coaxial Dynamics elements for either analog or digital apps. Elements are available from 5 watts to 100 kW and from 2 to 2300 MHz.

A typical system consists of an Advanced Wattchman controller and a dual-socket line section for each transmission line to be monitored with the appropriate elements.

Abnormal load conditions cause an alarm and e-mail notification. Each transmission line may have different power levels and frequencies, as those parameters are determined by the elements.

Alarm/shutdown requirements can be set for each transmission line. An audio alarm sounds for any fault conditions.

Info: www.coaxial.com

Prism Sound Shows Off Orpheus, SADiE

Prism Sound introduced the Orpheus audio Firewire interface, offering plug-and-play operation with Windows or Macintosh computers.

It provides eight analog line inputs, four of which also can accommodate microphone inputs; the first two inputs also accept instrument inputs.

Orpheus offers eight analog line level outputs, 10 digital inputs, 10 digital outputs, two headphone outputs and MIDI I/O. Software can change the input gains and polarity, and enable or disable microphone phantom power. A large front-panel volume control can be assigned to control various output levels.

Additionally, Prism Sound announced its acquisition of SADiE, a manufacturer of digital audio workstations. The SADiE brand name will be retained but now as part of the Prism Sound business.

The company says it aims to place the existing SADiE product range on a secure business and financial footing. Existing customers will continue to have access to product support, using the same telephone numbers and e-mail addresses, as previously and new orders are being accepted by Prism Sound's sales offices in Cambridge, U.K., and New Jersey.

Info: www.prismsound.com

Aeta Provides Codecs, Portable Mixer

Aeta Audio Systems says the Scoopy codec is its best-seller.

Features include SIP implementation, and software to transmit over Inmarsat BGAN without a PC. Transmission modes include POTS and ISDN.

The company also now offers Scoop 4+, a single-space stereo codec for distribution or STL use. It works with IP and leased line networks or optional ISDN interfaces (1 or 2 BRI) where ISDN is available.

Aeta says it has been promoting IP codec interoperability and supports the EBU's recent N/ACIP group recommendation.

Beyond codecs, the company makes a three-channel portable stereo professional audio mixer called My Mixy, providing analog and digital I/O in a compact and lightweight format.

Info: www.aeta-audio.com

Manreo Adds Video-Over-IP Recorder, Streamer Modules

Radio is more multimedia than ever. Netia bridges those worlds and has released video-over-IP Recorder and Streamer modules for its Manreo software for media asset management.

Manreo lets broadcasters manage media through digitization, editing of raw footage, indexing, archiving and browsing of media assets. The new modules ease the acquisition and distribution of IP-based content for Manreo users.

The modules "reduce the complexity of taking SDI video from the camera to editing by eliminating the need for a video server," said Yoann Poizeau, video product manager at Netia.

"A simple file server and a facility's existing architecture can instead be leveraged for acquisition and delivery of digital video."

The VOIP Recorder streamlines acquisition of SDI content, accepting the encoded IP stream and delivering media to the file server, where it is available for editing, archiving and auto-indexation. VOIP Streamer enables the delivery of content to any number of destinations if those sites are equipped with an VOIP Recorder or VOIP Decoder with an SDI output.

The module supports broadcasting over IP (nearVOD) and allows for delivery of multiple streams from a basic desktop PC. At the transmitter, video can be checked via a standard video player loaded on a PC.

Info: www.netia.com

Air 1 Also Suits News, Podcasting

Audioarts Engineering says its compact Air 1 console retains the features and interconnect system of larger consoles despite its small footprint.

Air 1 is suitable for the needs of the on-air broadcast, production, news, remote and podcasting markets. It accepts two mono microphone inputs and six stereo inputs that can be routed to one or both of the console's stereo outputs, and offers a comprehensive metering and monitoring section. The low-profile frame (2-1/2 inches high) comes with a tabletop mount with direct access TRS rear connectors.

Features include dual program busses; dual monitor outs; headphone amp (+20 dB output); solid-state illumination on switches; long-throw faders on inputs and monitors; on-air indicator; and dual mic preamps.

The Cue output provides preview to an optional external cue speaker amplifier, and can be programmed to automatically interrupt your main stereo monitors.

Info: www.wheatstone.com

Transradio Offers Modular FM Transmitter

The U3 series of rack-mount transmitters from Transradio SenderSysteme Berlin offers flexibility in transmitter assembly.

Using a varying number of final amplifier modules, transmitters between 2.5 kW and 40 kW can be supplied. For lower-power operation, several transmitters can be installed in one 19-inch rack. For example, four 2.5 kW transmitters, three 5 kW transmitters or two 10 kW transmitters can be supplied in a single rack.

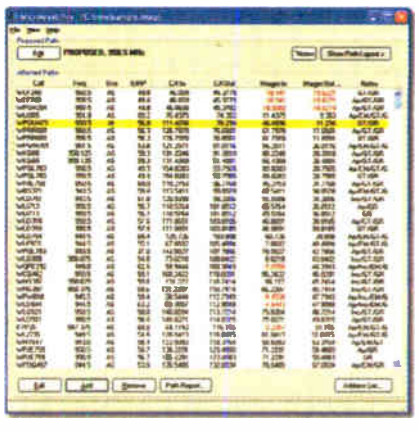
The transmitters include a control unit that connects to the outside world using USB, Ethernet, RS-232, parallel, BitBus, SNMP and HTTP. The E3420 FM exciter accepts analog audio, analog subcarriers and digital audio (AES or Ethernet).

Info: www.broadcast-transradio.com

V-Soft Analyzes Microwave Paths

V-Soft Communications' Microwave Pro software analyzes a proposed microwave path considering data from the FCC database, terrain and system characteristics (transmitter power, antenna gain, etc.) to identify usable

World Radio History



microwave frequencies and identify interference possibilities.

The software reports the carrier-to-interference ratio for potential interference relationships along with contact information for notification as part of the frequency coordination process.

Microwave Pro provides various views of the proposed path and existing paths showing possible interference areas in red. Changing to a terrain profile view, the terrain elevation is shown in red, the path in green and the fresnel zone in orange.

The program also calculates EIRP, path loss, fade margin and minimum recommended fade margin.

Info: www.v-soft.com

TFT Shows CAP-EAS Converter

TFT Inc. showed the model 2008 CAP-to-EAS converter, which polls CAP servers for XML-coded alerts that apply to the area served by the broadcast stations. The 2008 converts these alerts to the standard EAS protocol to drive existing EAS equipment.

The unit appears to the existing EAS equipment as another receiver, just as an existing broadcast or National Weather Service receiver. The 2008 generates the EAS frequency shift keyed data stream, generates the EAS alert tone, inserts the emergency announcement audio and then sends the alert terminating data stream.

If audio does not exist for the emergency announcement, the 2008 uses a text-to-speech converter to generate an announcement.

Info: www.tftinc.com

Nagra LB Is a Two-Channel Solid-State Portable

A compact and versatile two-channel recorder, the LB is the latest recorder in the Nagra family.

This is a two-channel digital recorder intended for broadcast applications.

It is a battery operated 16-/24-bit two-channel solid-state recorder with on-board editing, an Ethernet connection and Bluetooth communication. Sampling frequencies of up to 192 kHz are available depending on the application.

This compact recorder was designed for journalists, with the aim that they can record and edit their material in the field and return it to the studio over the GSM network by means of the Bluetooth communication with a mobile phone.

Nagra says the unit can fulfill recording applications from wildlife recording to sound effect gathering and music productions work.

It can be connected directly to the Internet through its Ethernet port. Files can be transferred over IP, an easy way of putting music and other recordings onto the Web.

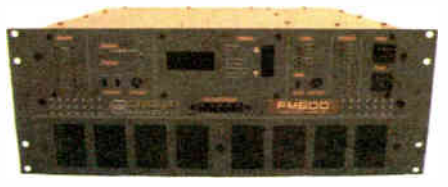
In physical size it is marginally larger than the ARES BB+ and runs from eight AA cells for 10 hours recording time.

Info: www.nagraaudio.com

Crown FM600 Adds Power, Lowers Weight

Crown Broadcast is showcasing its FM600, which has the features incorporated in its current low-power lineup; it replaces the FM500.

New features include maximum output power of 660 watts (up from 550 on the FM500), frequency agile from the front panel, ability to monitor SWR via remote control and ability to raise and lower power via remote control. The addition of a lightweight switching power supply lowered the overall weight on the unit from 60 pounds on the FM500 to 38 pounds on the FM600.



Crown also was excited about Fanfare's FP-TRO receiver/translator for HD Radio + analog, which features a Crown amplifier. It replaces the need for typical exciter demodulation and remodulation at the translator site. Instead, the "TRO" converts the modulated carrier internally from one frequency in the FM broadcast band to any other frequency within the band.

Info: www.crownbroadcast.com

Write to RW

Send e-mail to *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.

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Osgood Sustains Traditions

Page 40

Radio NRI Serves Asian Indians

Technology Entrepreneur Sees Big Potential Market — and a Multicast Syndication Opportunity

by Ken Deutsch

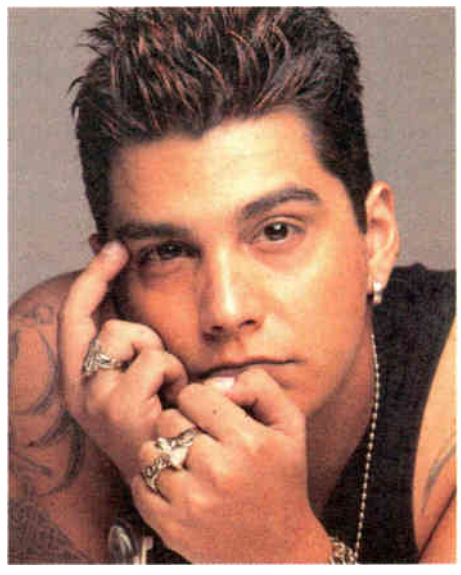
Forget about Apu Nahasapeemapetilon, "The Simpsons" character who runs the Kwik-E-Mart. He is not typical of Asian Indians who have emigrated to the United States.

This population is growing about 100 percent every 10 years, 10 times the national average according to the U.S. Census Bureau. But it's the qualitative statistics that are more interesting.

Almost 40 percent hold masters, doctorates or other degrees, five times the national average. The median income is $60,000, the highest of any ethnic category measured.

One in every 26 Asian Indians is a millionaire, said Merrill Lynch in a 2003 survey, and there are 41,000 Asian Indian doctors in the United States, as noted in an American Association of Physicians of Indian origin report.

Advertisers go where the money is, so why isn't there a radio network that serves this affluent market?



'Radio jockey' Cary Edwards

Technologist

"That's just what we're doing now," said David Frerichs, president and executive producer of Radio NRI.

The service's programming currently is heard on the Internet, Sprint and AT&T music phones, an AM station in Silicon Valley, and the subcarriers of several FM stations near San Francisco and in New York and three cities in Canada.

There are two 24-hour program channels and several long-form individual shows being offered for syndication, suitable for populating new HD Radio multicast channels. Radio NRI is also available through AOL Radio.

Frerichs, 38, calls himself a digital media entrepreneur; his name may be familiar to Radio World readers because he also is a former marketing and management executive with audio technology companies SRS Labs and Coding Technologies.

"I have been working in Internet media since the beginning, and in 2002 I was looking around to start a new service."

His background, he says, gave him several key insights: vertical content has value; IP, mobile and multicast are now viable radio business models; and content, not technology, is what makes people listen.

"I didn't have a ton of money and didn't want to compete with the big guys like AOL, so I decided that instead of going big and broad, I wanted to go vertical, and I discovered this particular market, Asian Indians."

In 2004 Frerichs took a trip to India and found the radio market there to be different from the United States.

David Frerichs

"FM radio had just been deregulated. With a population of about a billion, India then only had about 20 private radio stations," he said. "I talked to a lot of people there and met some who were working in music TV and radio to talk about syndicating their programming.

"Instead, we decided that nothing was a good match and that the best bet was to create something custom just for Indians living abroad. So we did."

The result was Radio NRI; Frerichs is the founder and primary shareholder.

Its Web site says NRI Media aims to provide "quality radio programming for the global desi community," using a colloquialism for South Asian immigrants and their descendants.

NRI stands for "non-resident Indians," another name for Asian Indians living outside of India. All of the programming originates in India and is brought to the U.S. via Internet.

"The fact that I am not Asian has not hampered the station's progress," he said. "Radio is radio. I leave the vast majority of programming decisions in the hands of the programming team, usually a wise choice regardless of the audience profile."

The company has a staff of two in this country and seven in India, with various contractors and partnerships to handle sales, marketing and other efforts.

"Radio jockey" Cary Edwards handles

RJ Paloma Rao

a weekly four-hour show called "Hindi Top 40 Countdown," other weekly top-40s in Tamil and Telugu and "Entertainment News of India," which is delivered in three five-minute daily segments.

Paloma is another young talent Frerichs hired from the world of TV, making her first foray into radio.

The announcers on Radio NRI use English, but the music they play may be in any of dozens of dialects spoken in India.

"We do this because English is a common language in that country and it lets us reach out to music explorers of all backgrounds," said Frerichs.

"We broadcast our first show, 'Indian Music Update,' in 2006, and it's still on the air. In 2007 we launched the 'Radio NRI 24/7' and 'Bollywood Classic Hits' continuous program channels."

Genres listed on its Web site include Bhangra, Hindi, Kannada, Punjabi, Tamil and Urdu.

Getting down to business

"We're like traditional radio," said Frerichs. "We sell spots. I want to scream to the world about radio and how it is some-

See NRI, page 38 ▶

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World Radio History

What Really Sells a Product?

Common Broadcast Offers Are Mediocre And Risk Making Your Station Look Bad

PROMO POWER
BY MARK LAPIDUS

I was just coming off the air when the general sales manager accosted me in the hallway.

"Hey, man, you gotta help me.

"I finally managed to nail down a meeting with this guy who owns a car dealership — says he's only seeing me because he was tired of dodging my calls," he said.

"So this dealer proceeds to tell me that radio doesn't work, that he's strictly a newspaper advertiser because the ad is 'tangible,' doesn't vanish into thin air the minute it's over, like on radio and TV. I spent 10 minutes trying to convince him that radio is what he needs, but in the end he says to me that I'm wasting my time and that I shouldn't come back unless I can prove to him that radio can push people through the doors of his dealership."

The GSM looks at me with a plea in his eyes and concludes, "If I can prove that radio really works, he'll buy a schedule."

I asked the GSM to give me a few minutes to think about the problem.

The biggest sale ever

By the time I'd grabbed another cup of coffee, I had it. I walked into his office and presented the plan: "Can you come up with $500 for a contest to convince this guy that radio works?"

After hesitating a bit stressfully, the GSM responded, "Okay! Okay."

"Here's what we're going to do," I said.

"Tomorrow morning at 10, we're going to go on the air and tell our listeners that

Radio is great about delivering an audience. The variable — the offer — is the most important part of the commercial.

Joe's Dealership is giving away $5 in cash to the first 100 people who walk in the door and ask for it."

The GSM looked at me incredulously. "That's it? You really think this is going to work?"

Having had some experience dealing with contest pigs, I just smiled. "Just be sure you're there around 9:45 to tell him that his dealership is about to fill up with people because of the awesome power of radio."

You can guess what happened. The money was gone in less than 10 minutes and for the next hour people kept coming to the dealership.

The GSM called me from the site to tell me how it was going. "At first, the owner was shocked. He could not believe all these people were coming in. A few of them drove all the way across town to get there.

"After about a half-hour, he actually starts to get a bit defensive and says, 'You know, you really tricked me! I had no idea you were going to give away money. That doesn't prove that radio works. It only proves that money works.'

"I told the GSM to go back to him and

See SELLS, page 40 ▶

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NRI

▶ Continued from page 36

thing you listen to, not something you watch.

"The whole idea of selling banner ads for radio is a nightmare, a big mismatch and irrelevant. Now the HD Radio guys might go that way and this is a sure way to get listeners to rip the radios out of their cars."

Frerichs believes radio has two strengths: it was a community long before FaceBook, and it is something people can use while doing something else.

"Personalities on the radio have a rabid fan base, creating a natural community. Radio has just forgotten this," he said.

"The other potent power of radio is that it is great background. If you're in your cubicle watching YouTube and the boss comes in, he'll hammer you. But if you're listening to the radio, then he won't get upset because you're still doing your work.

"We may do some ads on our Internet page, but we believe radio's power is audio."

Since Radio NRI is a new service, it is just now beginning to reach an audience of sufficient size to attract advertisers. He estimates the company reaches about 300,000 North American homes with its content.

"We are still in our launch phase, so it would be premature for me to tout any specific advertiser successes," he said. "Most of our customers to date have been smaller-scale advertisers who are already targeting the Indian community."

So what is its benchmark of success?

"Profitability," he said. "We are not there yet but very close. Real success will come when we get the luxury brands to sign on."

What about RIAA licensing? Are Asian Indian artists affected?

"No," said Frerichs. "Indian record labels are not a part of that, but I do pay royalties on the music as does anyone else with a legal Internet stream. I had to do the negotiations in India directly."

Frerichs' vision for success includes using HD2 and HD3 channels. He was an early advocate of multicasting, part of his work at Coding Technologies; he gave a presentation at NAB four years ago arguing that content differentiation would be the key to success of HD Radio.

"Radio stations make a mistake when they make their extra channels derivatives of their main format," he said. "That says they're in a defensive position. They think their main channel isn't good enough to keep the audience engaged.

"They should be saying, 'We had one stick; now we have three. What is our best opportunity to make money five years down the road?' I think the best way is to have three very separately programmed channels.

"And that is where we come into play. If we were on some HD2 and HD3 channels in major markets, we would be able to sell a strong local audience to our advertisers, and we want to make such licensing arrangements in the future." The company isn't yet ready to announce any multicast deals, however.

Frerichs is not too worried about competition for the U.S. Asian Indian market, because in his eyes, there isn't much out there.

"If there are 13,000 radio stations in the U.S., and Indians represent about 1 percent of the population, there should be at least 130 stations with this type of service, but there are only a handful," he said.

"And the stations out there are amateur-sounding. We want to have Indian content produced with western standards."

Radio NRI can be heard online at *www.radionri.com*. Over the air, its programs can be heard in certain time slots on KYAA(AM) in Soquel, near San Jose, Calif., as well as on the analog subcarriers of several FM stations in Berkeley, Calif., New York City and Montreal, Ottawa and Winnipeg, Canada.

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World Radio History

NEWS MAKER

Osgood Sustains CBS Traditions

But Recipient of NAB Award Says New Media Competition Benefits Everyone

Charles Osgood, the host of "CBS Sunday Morning" on television and "The Osgood File" on the CBS Radio Network, has been a broadcast journalist for more than half a century. He received the NAB's Distinguished Service Award this spring.

He's also the recipient of a newsroom full of other honors, including RTNDA's Paul White Award, four Emmys and three Peabodys. He spoke recently with John Merli of Radio World and TV Technology.

Question: *One of the key traits that you share with the late Charles Kuralt, your predecessor on "CBS Sunday Morning," is being a skilled writer. Is writing in television as important as it once was, considering all the technological innovations that seem to dazzle viewers these days?*

Osgood: I think the recent [Hollywood] writers strike gave us all some clue as to how important good writing for broadcasting is! [Laughter] But look, I do an hour-and-a-half television show every week on Sunday morning and there's no way I can do all my own writing on the TV side. We have many good writers at CBS and, among other things, they learn how to write to fit your particular style.

During the week, I'm doing radio with ["The Osgood File"] and there I do all of my own writing. I know that in Vegas at NAB that there's a big emphasis on all the newest technology. I've seen that happen through all my 40 years here at CBS, as well as other places before that.

I think the technology side is marvelous, which allows all of us to do things we never could before. But good writing is still a big part of it.

Question: *Yet years ago with Kuralt and others who were known to be effective writers as well as on-air reporters and commentators — Edward R. Murrow, Eric Sevareid, David Brinkley, Peter Jennings — what was* said *seemed to be at least as important as what was* seen.

Osgood: When I started in radio decades ago, the medium very much involved a certain amount of skill at putting words together.

Television puts a lot of emphasis on the pictures, of course, what's on the screen at any given moment. But I think the really good broadcasts understand that it's not just the pretty colors, the eye candy that counts — but good writing.

After all, trying to make sense of the news is a tricky business. In the end, it still all comes down to one person talking to another person, whether it's through an older model film camera, or a modern-day video cam, or digital, whatever it is that technology can do for us today.

Question: *It's not been unheard for you to tell your stories using rhymes. Why poetry?*

Osgood: Yes, I've been doing it a very, very long time. I've just found that some stories are better told with a rhyme, as long as it doesn't get in the way of the story itself.

I don't think it has to be funny, just as long as it's amusing or makes a point.

Question: *You've said for as long as anyone can remember on your daily commentaries, "See you on the radio." Is the medium of radio your first love?*

Osgood: Yes, well, I think that's because the pictures are better! [laughter] You have an opportunity to use that "theater of the mind." People tend to see different "pictures" on the radio, depending largely on their own experiences and their own backgrounds, on their own lives, really.

In that way, radio is a very powerful tool.

Question: *When you began in broadcasting, there was no cable, no satellite TV, no Internet, iPods or cell phones that disseminated news and other information. How does broadcasting fit into the overall media landscape in 2008?*

Osgood: Well, it's all made our business much more competitive. That's for the good, by the way.

Look, you walk down certain streets here in New York City and you see restaurants cheek-to-jowl, and so with that type of competition you had better be good, you know? And as it turns out, we have some of the best restaurants in the world here. So it helps all of us, the competition thing.

Question: *It seems that "CBS Sunday Morning," among other things, is perfectly suited to its time slot — rather like reading the Sunday paper, which only seems to work for a lot of people when it's actually read on Sunday, not any other time of the week.*

Osgood speaks at the spring NAB Show.

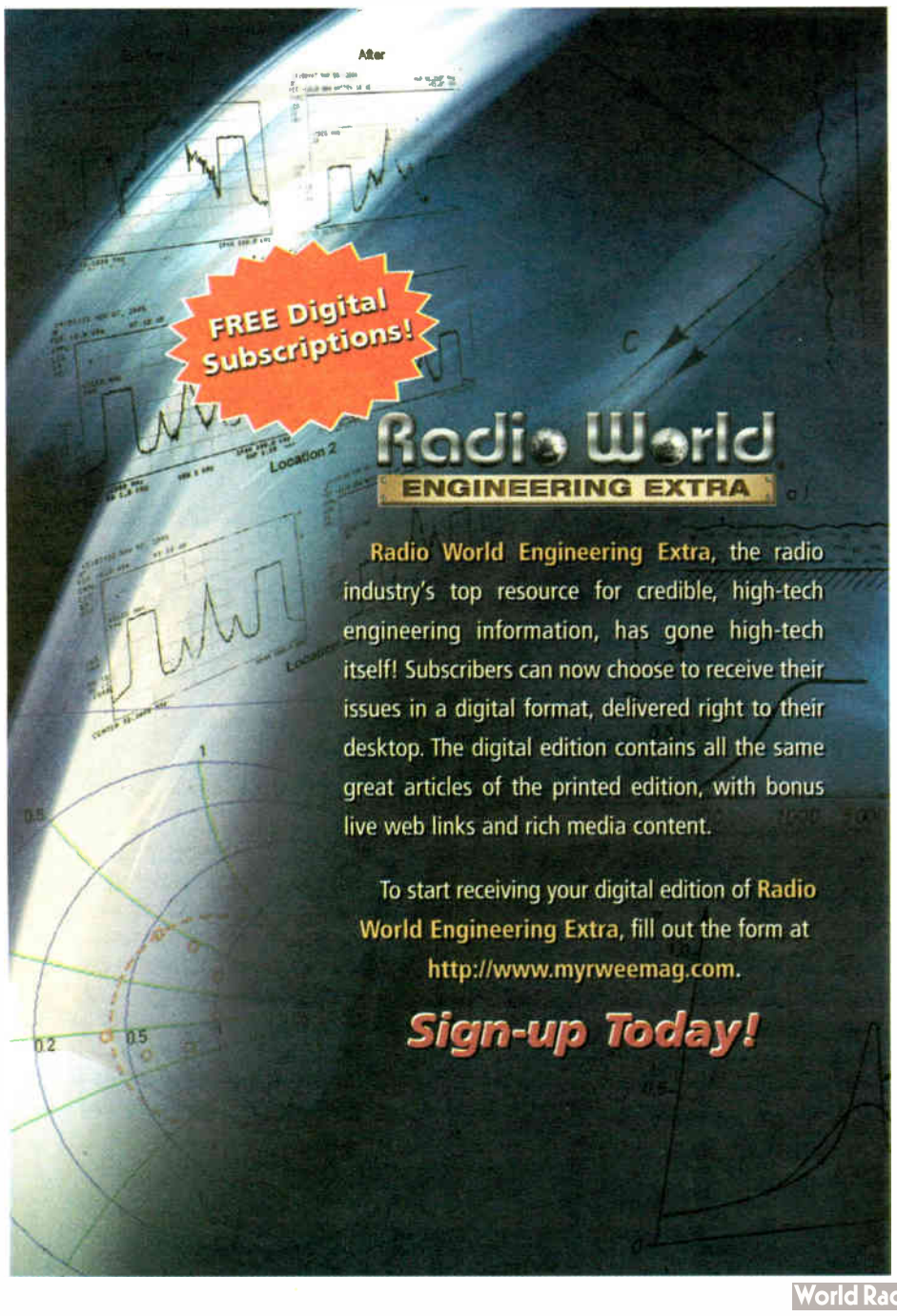
© NAB

Osgood: Well compared to morning TV during the week, we know that many people don't have the time on most mornings to actually sit and watch it. During the busy weekdays they'll maybe listen and occasionally glance at the screen while doing other things. But they're probably not casually sitting and watching it, which we hope is the case on Sunday morning for most people. That makes the difference.

Question: *You're now in your seventies, which, frankly, tends to be rather young these days compared to some CBS News guys like Mike Wallace, who is in his eighties. [Wallace turned 90 last month.] You're planning to remain on the air for at least several more years?*

Osgood: Well, yes, I certainly hope so. I'm 75 now.

People like Eric Sevareid and Ed Murrow were all here, of course, and I like to think these guys still haunt this place. I like to think that when we do something today, we quickly determine whether they would think the writing and other things are up to their standards. And maybe sometimes they'd say, "Nah, that's not as good as it could be," and then we'd strive to make it better before it ever got on the air.



Sells

▶ Continued from page 38

explain that it did prove that radio does indeed work — that it's only a matter of making the correct offer to drive action."

Later that morning, the GSM came back to the station with his first order from the owner, but even more remarkably, he came back with a great offer for consumers on the product.

The dealership owner was a smart man. He figured out that radio is great about delivering an audience and that the variable — the offer — is the most important part of the commercial.

That is what many account reps in radio do not take the time to understand.

If they did, they'd spend more time trying to convince their clients that great offers drive traffic to their stores and sell products. Poor offers mostly get a ho-hum reaction and can be the cause of clients shooing us away with, "Radio doesn't work, so leave me alone."

Here are a few generic, too-frequently broadcast offers that are unlikely to drive a result: "Ten percent off! Free dessert with full-priced entree! A chance to win an ordinary prize! The biggest sale ever!"

When a client gives you creative to air featuring such offers, he runs the risk of mediocrity and no results. Account reps should be trained to advise their clients diplomatically of this probable outcome before the commercial airs so the clients don't blame the wrong guy after the fact.

Here are a few broadcast offers which *will* likely drive a result: "Half price! Two for one! Sixty percent off! Buy one entree, get another free! Free tank of gas with test drive!" and, in military towns, "Your job is your credit!"

Sadly, there is another offer that almost always works, especially for clients who have never believed in the power of radio before running it: the going-out-of-business sale.

Write to Mark Lapidus at mlapidus@comcastsportsnet.com.

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440 feet Rohn 65G tower, 20 foot sections, painted with 1 flashing beacon & control, $10K, Ken Diebel, 318-728-2370.

6-bay ERI antenna, 100.9 FM w/230 ft of 3 inch Antdrews Coax with all brackets and connects, $7000. Clay Center, KS, 785-632-5661.

www.radioworld.com

Set of 6 radomes for an ERI SHPX-6AC, like new w/all hardware, they weren't needed for a mission station in Haiti, tests showed almost no effect on performance of the antenna w/wo, prior to shpg, VSWR after installation is Haiti still 1.02:1 without. BO & you pay shpg from Omaha, NE, about 300 lbs. J Gebuhr, wb0cmc@cox.net.

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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

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(2) super prize machines, 1 large, the size of a giant refrigerator, looks like a slot machine, 1 table top model, BO, you take care of shpg, can email pics. cmyers@sccradio.com.

Gates FM1C 1kW single phase xmtr; 2005 ERI 2-bay FM antenna, 97.5, like new, no longer in use due to freq change; 1995 ERI 4-bay FM antenna, 97.5, 10 yrs in service, replaced by 2-bay; Phelps-Dodge 4-bay FM antenna, 98.1, recently taken out of service due to frequency change; Inovonics David II 716 FM processor, recently taken out of service; Marti 15C-STL, 946.0 Mhz, recently taken out of service; Moseley 6020 STL xmtr/rcvr, taken out of service 1 yr ago; BE FX30 exciter, mfg 11/88. R Mahaffey, 800-725-9180.

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22	Arrakis Systems Inc.	www.arrakis-systems.com
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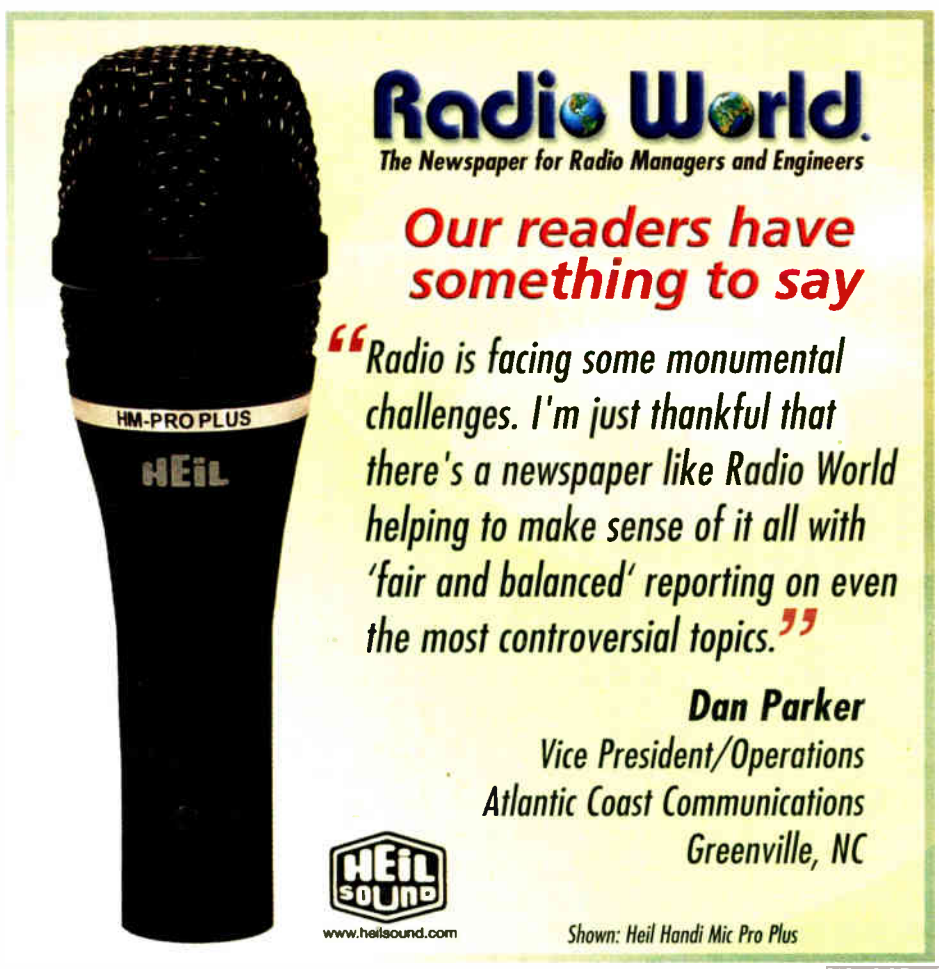


READER'S FORUM

Small-Market Challenge

Dear CEO in Ivory Tower of Under-performing Large-Market Radio Group,

This is an invitation from a small-market radio CEO to implement our 10-point plan:

• Get your hands dirty and visit our small radio company, where we have been surviving profitably for decades without relying on a flawed rating service.

• Cut expenses on the overhead side of business (traffic, so-called programming wizards, expensive offices, corporate, etc.) not the revenue side (sales, sales training, RAB, etc.) Hire more salespeople.

• Meet a real client — a car dealer, a realtor, a restaurant owner, etc. — not their agency.

Stop worrying about NTR. Sell ideas with radio.

— Rick Murphy

• Develop an ad campaign that has a real live ROI attached for the above clients. Take it from start to finish.

• Install a CRM system where you can actually monitor accountability at the individual level, in real time. Stop dealing with old information. Small-market broadcasters knew of the coming tough times long ago. We talk to small-business owners every day, and they knew many months in advance of today's economy problems.

• Force your company to get involved in its community. Make your GMs leave the building once in awhile. There's fresh air out there.

• Stop worrying about NTR. Sell ideas with radio.

• Make your GMs open their doors to new ideas. Shoot their gatekeepers.

• Start at the top. Look in the mirror. Be honest. How long has it been since you have been in front of a retailer?

• Ride with a salesperson. They will give you a ground-up perspective.

The masterful leader aligns more, inspires more, gets it right more often, sees more, creates more and keeps himself/herself whole in mind, body and spirit in a way that is remarkable to all who observe, follow or compete with them. They soar high, while appearing relaxed and ready for more.

Together we can change radio back into the dynamic power house it once was. We dare you. Come visit us.

Rick Murphy
CEO
Mad Dog Wireless Inc.
Lake Havasu City, Ariz.

Happy Trails

Not to upstage Reid Fletcher and his stalwart efforts ("The New 4WD?," March 26), but horses and broadcasting have gone hand-in-hand (hand-in-hoof?) for a long time in Rocky Mountain America.

I have visited our various transmitter and translator sites over the years by horseback, mainly in the summertime. Winter is reserved for snowcat, snowmobile, helicopter or snowshoe, depending on the situation.

Horses are dandy for certain applications, but they don't do too well in belly-deep snow — just like you wouldn't want to drive a snowmobile into several feet of fresh powder. Horses do have limitations. And feelings and keen senses humans can't understand — they're good at sniffing out bears or mountain lions long before we humans recognize they're there.

Years ago one of our AM sites was built partially by horsepower. Further west, KTOT, Big Bear Lake, Calif., used a mule to take field strength readings in the 1960s.

Several years ago, a friend, the translator engineer of an Albuquerque television station, had to hire a couple of horses to help build his facility outside of Taos, N.M. He did have a difficult time explaining that to the beancounters back east.

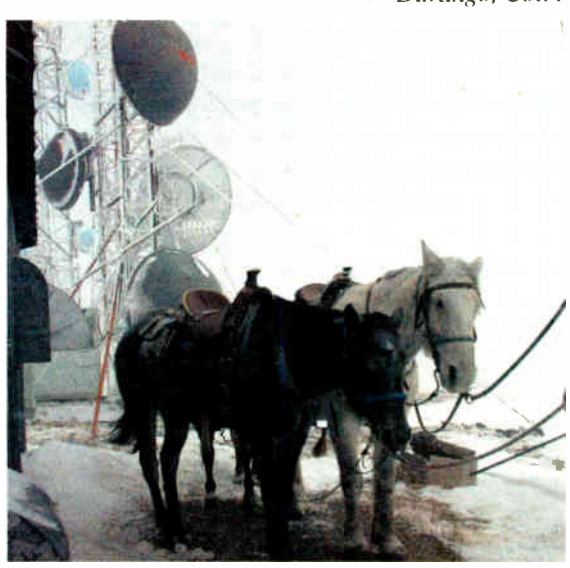
One of our utility company meter-readers has lost transmissions, oil pans and numerous other parts from his vehicles from getting up to a couple of our sites. Another contract person has done the same job more efficiently and often quicker by riding her horse to the same locations.

She loves it; it exercises her horse, and with the price of fuel today it's a heck of a lot cheaper.

I prefer horseback particularly in the springtime after snowmelt. It's the time of the year snow equipment doesn't hack it, and the roads are usually too goopy for pickups. Besides, horses get around windfall, rockslides and swollen streams easier than motorized vehicles.

I always take a little bit of grain along as a treat for the animals at the top. Makes them feel appreciated, which they certainly are.

Bruce Anderson
Director of Engineering
Four Corners Broadcasting/Western Slope Communications
Durango, Colo.



World Radio History

GUEST COMMENTARY

Radio's Future Is Bright ... If the Suits Leave

FCC Proposal to Expand FM Band, Coupled With An 'Infusion of Soul,' Would Boost Radio's Prospects

by Pete Simon

Looking at the numbers, radio sales are on the decline and the doomsayers are having a field day.

Unheard are those who have been cast aside by the beancounters, the unimaginative, the ones who stopped dreaming long ago yet still hold a position in a medium that screams for creativity, courage and a keen sense of spontaneity.

Others inside the tent but not in a position of decision-making shake their collective heads at the mentality and paradigms brought into the studio by "the suits."

Deep tracks

In a recent column addressing musical duplication in radio offerings, Michael Roberts of Denver's weekly publication Westword asked a local station "guru" about how his classic rock format tries to stand out in a crowded field. The "guru's" response speaks volumes about the industry and how it supposedly reflects the culture of our time.

This enlightened soul said his station was different because, rather than just allowing two tracks from "Hotel California" in the mix, he allowed his hosts to play any track they wanted from that tired disc.

These days, that thinking passes for "ahead of the curve."

Have such schmos ever listened to the angelic voice and songwriting genius of Arthur Lee?

Have they even heard "Forever Changes," which Rolling Stone named the 40th best rock album of all time?

Fact is, for whatever lame reasons, the only time you'll hear Lee's distinctive voice and his group "Love" on classic rock radio is during weekly shows on Sunday nights, like "Little Steven's Underground Garage," hosted by E-Street Band guitarist Stevie Van Zandt.

Imagine the horror felt by the afternoon host of New York's premiere classic rock station when one day in 2002 she received a call from Led Zeppelin's Robert Plant, in town to participate in a benefit for Lee to help pay his medical expenses (he passed away several months after the benefit).

The station had no discs by Love, anywhere.

Plant did his best, talking up the life and musical achievements of Arthur Lee. Ticket sales for the benefit with a shoestring budget took off after that, and the event was a mild success.

The story of Arthur Lee is one tale of misery among many for artists and listeners alike, misery created by beancounters and cynics who have run radio into the ground. It leaves us to wonder how many artists and how much great music are left in the dust.

More than ready

If you believe in the concept of safety in numbers, however, the FCC is bringing hope.

Comments to the FCC are due July 15 on several proposals to increase station ownership diversity (MB Docket 07-294). One proposal the agency seeks comment on would expand the FM radio band by reallocating FM frequencies currently used by Channels 5 and 6 television. Many of these frequencies will become vacant in February when television converts to digital broadcasting. Under the plan, advanced by Mullaney Engineering, some 60 new FM channels could become available.

The alternative to this option is another idea floating in Congress that would place these frequencies up for auction to the highest bidder (in theory to help retire the national debt, but we are dealing with another kind of deficit with radio that adding more frequencies can only help to remedy).

It might sound crazy to add more frequencies to a "dying" medium. But all radio needs is an infusion of soul, imagination and genuine localism, which satellite radio can only dream of delivering. Remember what brought FM radio to its heights to begin with, when AM radio was still king and the FM signal was still unreliable.

With technically flawed signals, FM owners started paying peanuts to dreamers crazy enough to take to the airwaves with jazz, folk and then album rock, while top 40 ruled the AM side.

As FM momentum grew — bolstered by technical innovations like circular polarization, making the signal much more dependable — FM eventually became a cash cow. The beancounters arrived, tweaked "progressive rock" formats and you now hear the result.

What better way to reintroduce "inmates running the asylum" than 60 new FM channels to play with?

Is the populace ready? Oh yeah.

Pete Simon is a jazz host and producer at KUVO(FM) Jazz89 in Denver.

iStock.com

What 'dying' medium? Radio just needs imagination and genuine localism to be great again.

◆READER'S FORUM◆

Keeping It Real

Both Skip Pizzi, "Polarizing the Receiver Marketplace" and Dave Wilson, "Free Local Radio: Time to Get Tough" (April 9) have been buying into the same "dot-com" mentality as the newspaper business and TV news.

The customer can't go online without considerably more effort and expense than the price of the paper or magazine, or the less than $20 for an AM/FM radio.

The Sumter Item turned its Monday paper into a tabloid devoid of anything good, and told the subscriber to "go dot-com" for the news. You wouldn't believe the hell that was raised at the local restaurant and elsewhere around town.

In radio, a few of us dinosaurs hire good people and then trust them to make judgments and to have personality. It's content, content, content — not cute technology — that makes the difference. Even we AMs can beat the FM guys if we have content and they don't.

A telemarketer called and asked what automation software we were using at WAGS. I told him none and that in 20 seconds I'd have to tell the audience what we just played and figure out if I'd play another CD or something from an LP. We're real.

But the trades are enamored with technology: HD Radio (expensive and flawed), Internet, multi-streams, automation... It's like TV — gobs of channels and nothing on. We must get with the latest tech stuff. I hope Skip and Dave ditch their cars with those old-fashioned wheels. Embrace the future. Wheels are the past.

Simple and cheap beat complicated and expensive every time. And genuine beats phony every time. You don't take Maine lobster and dip it in cheap margarine. You use hot butter. Radio is really dipping in the cheap margarine.

Jim Jenkins
Owner/GM
WAGS Radio
Bishopville, S.C.

Herb Kent

What a delight to see a story about a great radio announcer and wonderful human being: Herb Kent, "the Cool Gent" (April 23), still on the air for all these decades.

I worked as his chief engineer at WVON(AM) and WGCI(FM) in the late 1970s and early 1980s, and found him to be a great wit and a truly funny man. Most of his radio bits were based on real life, although most people thought it was his imagination.

Kevin Wagner, now CEO at Urban Radio Broadcasting, would sell commercials for his show; Herb and Kevin would come back from dinner or a meeting with advertisers, and he'd say, "You should have seen us walking down Michigan Avenue ... we looked like the Roman Numeral Two!" Kevin's put on a few pounds over the past 25 years, I've heard.

There are two guys who should have been picked up and syndicated around the globe forever. Herb is one; and Dick Biondi, also in Chicago at WZZN(FM), is the other. They are icons who should be enjoyed in all their glory, and they make me proud to be in the broadcasting industry.

There are two guys who should have been picked up and syndicated around the globe forever. Herb is one; and Dick Biondi, at WZZN(FM), is the other.

— Mark Heller

Mark Heller
President
WTRW Inc.
WGBW(AM)
Two Rivers, Wis.

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NewBay Media

Radio's Days of Complacency

Is Industry Building a Business Model for the Era of Mobile/Handheld Digital TV?

One of the most thought-provoking presentations at this past spring's NAB Show came from Dave Wilson, director of technology and standards for the Consumer Electronics Association, who expanded on points he made in the pages of Radio World in our April 9 issue.

Wilson — whose employer represents the makers of radio receivers among other devices — believes that satellite radio is here to stay; further, it soon will add free channels that carry ads, increasing its threat to traditional radio's business model. Free local radio could even lose its traditional place in the dashboard, he says.

Radio should be using this time to make its own service more valuable to consumers through a combined presence online and a dramatic "refarming" of the FM band.

Wilson works for the consumer electronics industry but was employed for years in technical positions at the FCC and then the NAB. An SBE-certified broadcast engineer, he knows his way around radio and how to prompt discussion.

Radio, he believes, should remake itself as a wireless downloading service. Digital transmission allows stations to ship digital audio files to consumer products, he feels, and consumers prefer to consume their media in this manner. Continuous streams of programming provided in real time will become far less popular.

If Wilson's ideas seem far-fetched, we agree this is the kind of discussion radio's leaders should be having if our industry is to evolve and thrive. Far too often, radio's business concerns are limited to the current financial quarter, not the steps we might take to build a successful business for the next decade.

Finding his perspectives refreshing, we followed up and asked him to identify the most important topic he sensed for radio in the engineering sessions of the spring show.

"Clearly the development of a mobile/handheld standard for digital television," he said.

"In a few years TV stations will be able to reach consumers while they're in their vehicles. This competitive challenge for radio may be even more significant than the one presented by satellite radio and portable media devices, because local TV stations compete directly with local radio stations for local ad dollars.

"Radio shouldn't be complacent and assume that, because it's TV, people can't 'watch' it in the car. Many TV programs, particularly morning and evening (aka 'drive time') news and information programs, are almost as useful to the consumer without video as they are with video."

We also asked him what questions radio trade journalists should be asking right now in doing our jobs. He replied:

"Will NAB be fighting the competitive threat to radio from mobile/handheld TV as vociferously as it has been fighting the competitive threat from satellite radio?"

"Is AM/FM radio going to improve the efficiency with which it uses its spectrum so that, collectively, it can provide more content to consumers, making the choices available on free local radio more competitive with those provided by satellite radio?"

"What will AM/FM broadcasters do in the event that satellite radio broadcasters begin offering advertiser-supported channels to consumers for free?"

"If satellite radio broadcasters begin offering advertiser-supported channels to consumers for free, what arguments will AM/FM radio broadcasters make to car makers in favor of retaining AM/FM receivers as standard equipment in new vehicles?"

"Should the radio industry begin a campaign to correct the discrepancy between the length of time for which patents are granted vs. the length of time for which copyrights are granted? (If copyright protection followed the same rules as patent protection, all songs published before 1991 would no longer have copyright protection.)"

We don't know the answers to all of Wilson's questions nor agree with all of his positions, stated or otherwise, on today's hot-button regulatory topics for radio owners. But the industry's opinion leaders — the NAB, radio group heads, public radio's leadership and folks like us in trade publishing — do need to be asking more questions about where the industry is going, and not immediately dismissing creative ideas, like some of Wilson's, as untenable.

— Radio World

◆READER'S FORUM◆

Blame Television

Thanks for Adrian Peterson's article "A Voice Across the Pacific: KWID & KWIX" (April 23).

I worked at KSFO about a year after the shortwave stations had been shut down. The shortwave stations still were completely intact at that time. The story was that they were on standby and could have been turned on in an emergency.

One thing that led to the early demise of these stations was TV interference. They used rhombic antennas with a major lobe directly over San Francisco. They transmitted on frequencies that were too close to the IF frequencies used in early television sets. When one of these stations signed on, a lot of people lost television reception.

Fred Krock
Walnut Creek, Calif.

Loy Barton

Loy Barton was my grandfather.

My mother, Helen Barton Solomon, is his oldest child. She is 84 years old and living in my hometown of Chattanooga, Tenn. She also went to the University of Arkansas.

Thank you very much, Mr. O'Neal, for the article ("Loy Barton, a Forgotten Radio Pioneer," July 18, 2007, and archived under *Roots of Radio* at *radioworld.com*). It has some details I did not know about his life.

I have had occasion to mention to older electrical engineers (some patent attorneys, some working engineers) of my grandfather's invention. Most of them knew my grandfather was Loy Barton. It is too bad that with the passage of time and newer technology, his role in radio is not known better by today's engineers.

Karen Solomon McGinley
Manchester, N.H.

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88D I/O: 8 digital inputs and outputs. You can headphone monitor and meter any of the SQUARE's inputs or outputs in real time. The 32 character display gives you all the information you need about your audio and system configuration. And because you can operate in either 8-channel stereo or 16-channel mono mode, 16 channels of metering are provided.

88E DIGITAL ENGINE: Just plug an E-SERIES control surface or GLASS E computer interface into this engine and get all the mixes, mic and signal processing you need. Fanfree, so it can stay in the studio where it belongs.

88A I/O: 8 analog inputs and outputs. You can bring a new SQUARE up in seconds and of course use the front panel encoder for your X-Y control. Front panel status LEDs give you continuous link, status, and bit rate information as well as confirmation of any GPIO activation.

Because the E^2 system doesn't rely on a third party GUI, tech support is straightforward (and 24/7). Likewise, system operation doesn't require external PCs for continued full functionality. Best of all, 1 Gigabyte protocol eliminates the latency and channel capacity restrictions associated with older technology.

88AD I/O: 4 analog plus 4 digital inputs and outputs—perfect for small studios or standalone routing.

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