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RF Partners
 Continental, Nautel
 form an alliance.

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**The Voice of
 McLean County**
 WJBC has been a local
 standout for 81 years.

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Radio World

\$2.50

The Newspaper for Radio Managers and Engineers

May 24, 2006

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NEWS



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▼ A recent spate of FCC fines for tower violations reminds us it's a good idea to review tower rule basics.

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▼ John Lyons looks inside a new "Model Disaster Recovery Plan" for radio stations.

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▼ Tips for keeping up with IP audio, mobile media, broadband wireless and data networking.

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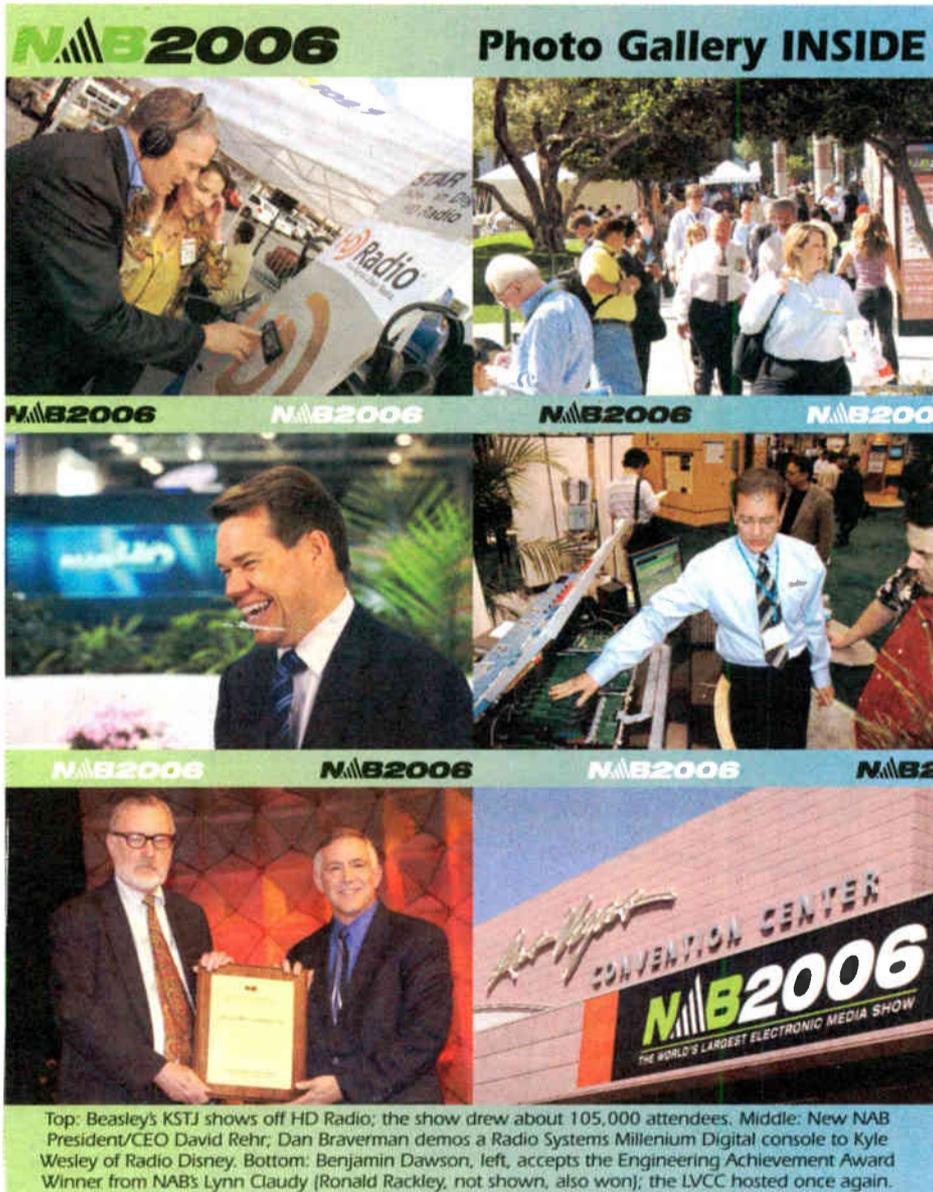
▼ Pilar Lastra and friends hope to make Playboy Radio a success on Sirius after moving from XM.

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▼ A station rebuilds after back-to-back fires.

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Top: Beasley's KSTJ shows off HD Radio; the show drew about 105,000 attendees. Middle: New NAB President/CEO David Rehr; Dan Braverman demos a Radio Systems Millennium Digital console to Kyle Wesley of Radio Disney. Bottom: Benjamin Dawson, left, accepts the Engineering Achievement Award Winner from NAB's Lynn Claudy (Ronald Rackley, not shown, also won); the LVCC hosted once again.

WZLX to Go MPEG Surround

by Leslie Stimson

LAS VEGAS Telos Systems is busy encoding music for classic rock station WZLX(FM), Boston. The CBS Radio facility expects to air its entire format in 5.1 surround sound via its HD Radio signal and MPEG technology.

The station hoped to make the change within 120 days. Telos officials said this would make WZLX "the first 24/7, full-time surround radio station in the world."

The companies hope the move will attract the attention of industry players — including Boston-based receiver makers such as Boston Acoustics and Bose — to generate excitement about MPEG Surround sound capability, said Steve Church, chief executive officer of Telos Systems, and Frank Foti, president of Omnia.

Harald Popp of Fraunhofer said the MPEG Surround standard would be finalized this summer, as Radio World has reported.

"This is going to create a significant boost to radio's aural impact and will be an important motivation for consumers to buy HD Radios," Church said. "We know the marketplace wants surround."

See SURROUND, page 26 ▶

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Continental, Nautel Form Alliance

LAS VEGAS Continental and Nautel are working together in the hopes of growing the North American transmitter businesses of both manufacturers.

The companies signed a strategic alliance at NAB2006. Peter Conlon, president of Nautel Ltd., and John Uvodich, president of Continental Electronics, signed the agreement. Uvodich said the two companies, nominally competitors in the RF business, had "developed a great rapport."

The companies' booths were located across the aisle from each other at NAB2006. Asked if the arrangement was a prelude to the purchase of one company by the other, both said that was not the case.

In their first joint interview, the leaders of the companies told Radio World that the agreement will allow both manufacturers to offer customers a range of HD Radio digital systems and products, while playing to each company's strengths: Continental will now offer solid-state Nautel gear in the U.S., and Nautel will now offer Continental high-power tube equipment in Canada.

"This gives broadcasters single-point access to Nautel's rich expertise in solid-state and digital adaptive precorrection FM exciter designs in conjunction with Continental's cost-effective high-power tube technology employing innovative linearization techniques," they stated in the announcement.

Nautel hardware sold through Continental will have the latter's logo on the front.

The deal has been under specific



Peter Conlon, Adil Mina, Jorgen Jensen and John Uvodich, from left.

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discussion for at least a year, and Nautel manager of business development Jorgen Jensen and Continental's vice president of business development Adil Mina said they have been discussing possible alliances for several years.

"We were both missing a piece," Jensen said.

A decision by Continental to use a Nautel exciter in the 816HD transmitter, introduced last year, encouraged more formal cooperation, and the companies said the new agreement "solidified" the exciter's role in that product.

Nautel officials said they had discontinued exclusivity arrangements of its U.S. dealers several years ago. Both companies say sales have been strong in the past year, with Continental business up 40 percent and Nautel's up 50 percent.

Continental reported \$27 million in sales last year, Uvodich said. Conlon did not release Nautel sales figures but said its revenue was "on the same order of magnitude."

— by Paul J. McLane

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NAB 2006

THE WORLD'S LARGEST ELECTRONIC MEDIA SHOW

Photo Gallery



Photo by Scott Fyhrish



◀ Carpets are staged on the final set-up day. NAB show attendance was an estimated 105,046, a few hundred more than last year's total.

More photos on page 22

Photo by Paul McLane



Photo by Paul McLane

▲ Grady Moates, chief engineer of WBIX(AM), Natick, Mass., let colleagues know about his recent installation of one of the first BE 4MX50 transmitters to go into service.

◀ Cumulus, second-largest group by station count, will convert at least 80 percent of stations to HD Radio by 2012 using Harris transmission platforms. From left: Deb Huttenberg of Harris, Gary Kline of Cumulus and new Harris Broadcast President Tim Thorsteinson announced the multimillion-dollar deal.



Photo by Scott Fyhrish

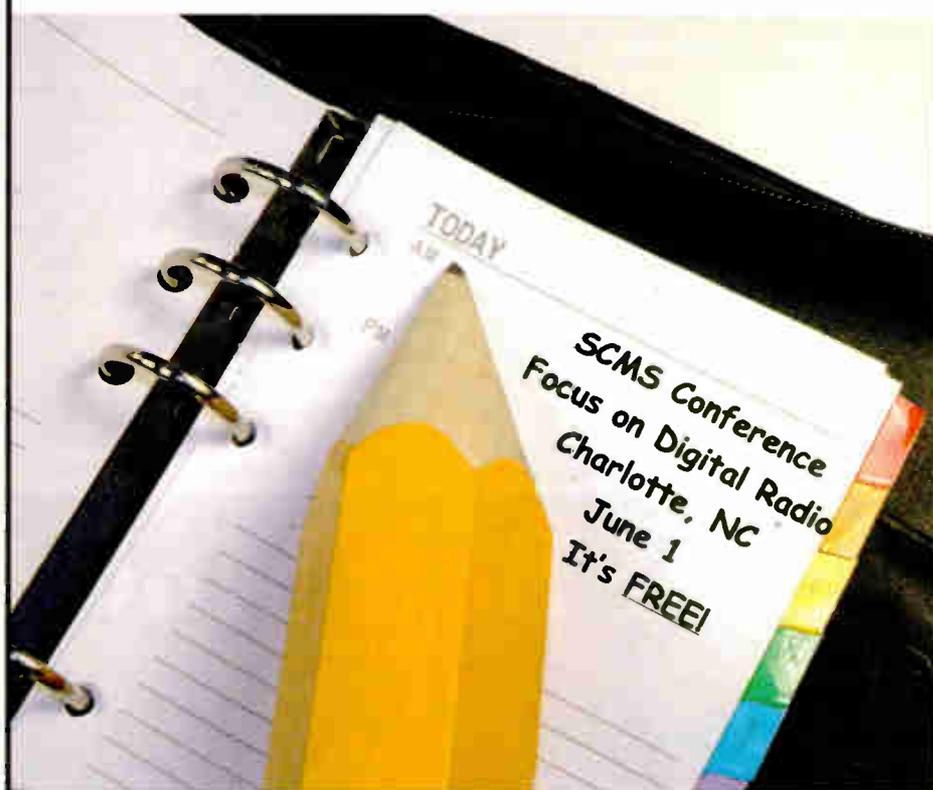
▲ CBS Radio Las Vegas Chief Tracy Teagarden shows off the Mount Potosi transmitter facility to Glynn Walden, CBS SVP of engineering, during a visit to the site 8,600 feet above sea level. Along for the trip were Ibiqity's Jeff Detweiler and European engineers who wanted to see KXTE(FM), one of the first HD Radio stations.



Photo by Paul McLane

► ERI's Tom Silliman and Bill Harland. The company promoted its expanding facilities in Chandler, Ind., and displayed a new 1180 series panel FM antenna among other offerings.

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'The Talk of the Hallways'

"Of course, HD Radio was the main topic at the convention."

In this and the next several issues, Radio World will report on news, products, trends and sessions at NAB2006.

Seeking perspectives, I asked around among participants. The comment above is from Cris Alexander, DOE for Crawford Broadcasting and an RW contributor. For him, HD Radio "was a primary topic of the radio technical sessions, it was the talk in the hallways and it appeared to be the most featured aspect of the major manufacturer offerings."

Cris saw not a lot of "new" developments but refinements of existing technologies. "My impression from the sessions and the exhibit floor is that, love it or hate it, HD Radio is here to stay. The good news for broadcast engineers and managers is that this technology is getting good manufacturer and broadcaster support. I think the danger of another 'AM stereo' false start is becoming less by the day," Cris believes.

He noted the number of products to ease the transition into digital, including transmitters and antennas, STLs, processors, mixers and source equipment.

"In the sessions, we learned the 'whys' of some of the HD Radio phenomena we have been seeing in the field," he added. "We knew what was happening but we didn't really understand the underlying causes. Now we do, and that will do nothing but help us with our HD Radio conversions in the field and help us provide our listeners with better digital coverage and more robust signals."

Traction

Mike Starling, vice president and chief technology officer of NPR, said the news of the show for him was HD Radio's traction.

"With roughly 250 stations currently multicasting; Clear Channel announcing nearly 100 channels for their competitors as well as their own stations to choose among by year's end; and the first 24/7 surround radio station being announced in Boston, the service offerings that will drive HD are taking shape quickly."

Starling was surprised to see HD translators making it to market. He noted there was a booth devoted to an innovative single-point surround microphone solution. He was impressed by low-cost, high-quality point-to-point "IP-casting," seen in numerous exhibits, as well as "some very clever listener interaction tools" deployed by BE's Messagecasting and Mother's FM411 software.

"New HD Radio service options like multicasting, surround and listener-targeted datacasting have cleared the launch pad," Starling said. "As Laura Behrens at the Gartner Group summed it up, 'Not going digital is not an option.'"

Starling feels the best minds in the industry are now concentrating their focus on maximizing innovative service offerings and the coverage and quality achievable with HD Radio.

At Cumulus, the vice president of corporate engineering and IT is Gary Kline. He echoed comments that the story of the show was "a continued expansion of offerings and product evolution for HD Radio implementation. I had few surprises with regards to technology trends," he said. "Most of what I saw was either an evolution or merging of existing technologies."

"I think the overall picture is this," Kline said. "Digital radio, surround, multicasting, IP, etc. are all merging together. Now more than ever, these technologies are blending into one package."

"I saw more than one booth demonstrating complete studio systems utilizing IP to connect surround, telephones, mixing, multicasting, processing and digital radio. This is the way that things are headed. In fact, in a number of installations, this is the way things are being handled today in real markets."

Kline also saw a number of products on display that won't be available for several months. "That is nothing new, except this year for whatever reason it seemed to me to be more prevalent."

Cumulus continued its tradition of offering sessions for its staff (recall I told you last year about the surprise personal makeovers Kline arranged for engineers).

His agenda included a tube rebuilding presentation by Econco; an HD Radio review with Ibiqity; SBE news from the society's President Chriss Scherer; a FEMA/EAS update with expert Richard Rudman; an HD Radio update from Harris; an FCC legal review that included former Allocations Branch Chief Mark Lipp, consultant Jeff Brock and former commissioner Henry Rivera, among others; and corporation news presented by Cumulus executives Lew and John Dickey. That's a strong program anytime — and this was *before* the actual show.

150 kbps

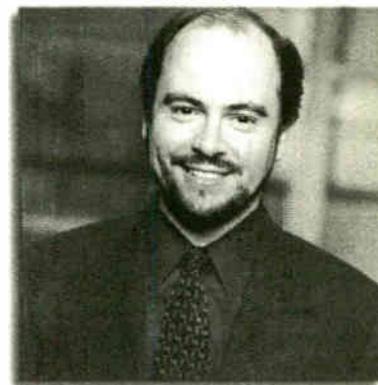
David Layer, director of advanced engineering at NAB, said, "Multiple demonstrations of multicasting using the so-called 'extended hybrid' mode of the HD Radio system were further evidence of how the industry is embracing multicasting technology."

"Both Harris and BE were demonstrating four-audio-channel multicasts — a 48 kbps news channel, a 36 kbps classical music station, a 24 kbps non-classical music station and a 12 kbps Radio Reading Services channel for a total of 120 kbps; the extended hybrid mode of FM IBOC can support up to 150 kbps."

I asked Layer about news from the National Radio Systems Committee; he is NAB's administrator representative to NRSC, which NAB co-sponsors with CEA. "The NRSC's AM bandwidth study is nearing completion. This study is being undertaken to assess how consumers react to a reduction in analog AM bandwidth, a practice which in theory could improve audio quality by reducing interference between first-adjacent AM signals," he said. "At the AM Broadcasting Subcommittee meeting, AM Study Task Group Co-Chair John Kean of NPR Labs reported that a consumer subjective listening test of recordings made of AM audio using various receivers and various transmission bandwidths is underway."

Layer also wanted to thank those who donated door prizes to the Amateur Radio Operator's reception. (I'll add my

From the Editor



Paul J. McLane

two cents: the ham reception's organizers and their sponsor, Heil Sound, deserve a salute for turning the event into one of the social gatherings of the convention; and it's open to all, with some fabulous door prizes desirable to broadcast engineers, this year worth over \$10,000.)

Steve Davis, senior vice president of engineering for Clear Channel Radio, said an important development is that the FCC may allow the use of translators to fill in for the night service of AM stations that have reduced night service area.

"Also this is the first show where we really began to see the beginning of a 'paradigm shift' of engineers and managers looking at alternative means of delivering content, such as via cell phones, podcasts etc. We're starting to see ourselves as content creators and distributors rather than merely 'radio broadcasters.' Clear Channel has long focused on this," Davis said.

He reported that the session "Managing Your Bandwidth," which he moderated, was packed, with questions on multicasting, surround sound, use of importers and exporters and so on. "There is still a lot of misinformation ... but it was clear from the questions asked and level of interest that engineers are seeing the importance of understanding this," Davis said.

One thing these managers and engineers didn't mention to me was how few HD Radios were present to be heard on the floor. Lest we forget, consumers need hardware if this format is to succeed. I would have liked to come to NAB and

See TALK, page 5 ▶

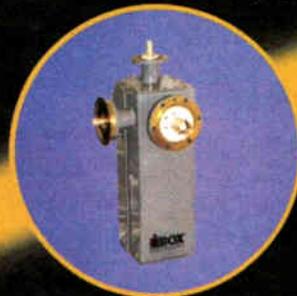
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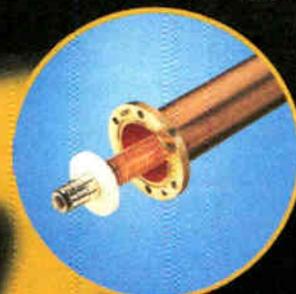
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Companies Vie for E-Measurement Biz

Ratings Firms Race to Build the Better Radio Measurement Mousetrap

by Randy J. Stine

HOUSTON Three companies are fighting to build radio's next preferred ratings system.

Hoping to foster the launch of commercial implementation of a new system in at least some markets by the end of the year, a group of radio owners and other users of listener data continues to examine proposals from the finalists.

Each proponent is offering not only a technology but also services in collecting and compiling results, as Arbitron does now with its diary data. Thus the three companies are fighting for radio's great research prize: dominance of the ratings market, long enjoyed by Arbitron.

While much has been written here about Arbitron's Portable People Meter over the years of its development, its competitors for the endorsement of the "Next-Generation Electronics Ratings Evaluation Team" are less familiar.

However, The Media Audit and Mediamark are hardly unknowns when it comes to media research. Each hopes its electronic audience research system eventually will be chosen to replace Arbitron's paper diary system, introduced in 1965.

The "Next-Generation Electronics Ratings Evaluation Team" includes radio companies, ad agencies and a radio advertiser, Ford Motor Company. The broadcast members are ABC, Bonneville, CBS Radio, Clear Channel Radio, Cox Radio, Cumulus, Emmis, Entercom, Entravision, Greater Media, Journal,

Radio One, Regent and Susquehanna.

Clear Channel last summer publicized a Request for Proposal for a radio electronic ratings service; that step started the evaluation process. The company sought to exhaust all possibilities for electronic measurement; it received 34 proposals.

The evaluation team earlier this year selected the finalists from seven semi-finalists announced in December.

While no single entity can give the entire industry's endorsement to one system or research provider, the finding of the evaluation team is considered to be the closest thing. Experts believe an industry standard for an electronic ratings system will be necessary because ad buyers have indicated a preference to one recognizable, consistent baseline.

The Media Audit and Mediamark Research have pitched tech-savvy systems they say will provide more accurate radio listener data than Arbitron's diary methodology or its proposed PPM.

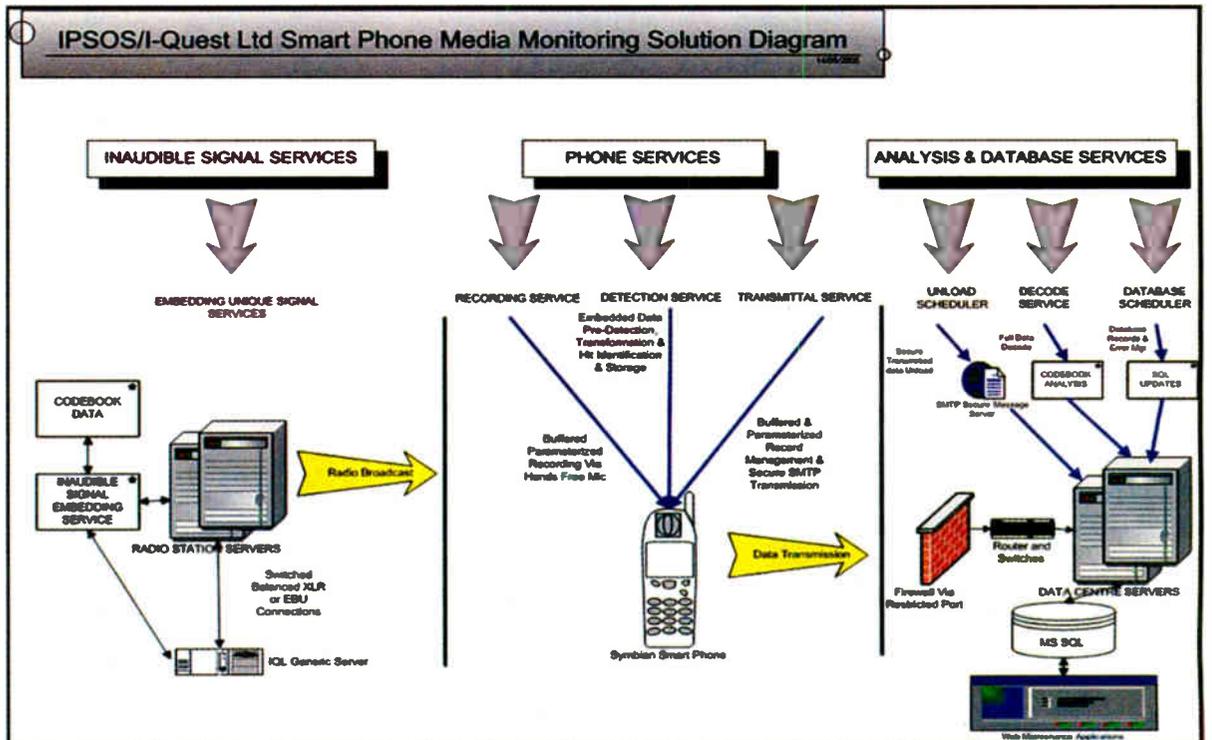
that can check e-mail, browse the Web, schedule meetings, play MP3s, take photos, make phone calls and electronically track radio listening habits," said Phil Beswick, executive vice president for The Media Audit.

It's that "all-in-one" integrated aspect that will allow The Media Audit to monitor consumers' behaviors as unobtrusively as possible, he believes.

"You need compliance, and in order to do that you have to make measurement as least onerous as possible. Compliance leads to fair and reliable data of radio listening," Beswick said. "A smart phone with many features becomes indispensable and therefore is taken everywhere."

The Media Audit believes using the smart cell phone as a measurement device will satisfy the research needs of radio into the future, he said.

"The cell phone is the fastest-growing consumer product ever. It's not going See RATINGS, page 6 ▶



Talk

▶ Continued from page 4

found dozens of high-impact displays with radios from a half-dozen manufacturers and signs screaming about this exciting new format. After all, stations are telling listeners about it on the air. There were only a few Boston Acoustics and Radiosophy models scattered about. As we used to say watching baseball in New York: "Maybe next year."

Mike Starling of NPR ended his comments with an anecdote: "Our friends with pictures celebrated their 25th anniversary of the first U.S. HDTV demonstration by hosting NHK's amazing new Ultra-High Definition demonstration, boasting 16 times the resolution of standard HDTV," Starling wrote.

"It was impressive, as was their 3-D television demo. But on the plane ride to and from Vegas, while you could 'watch' the movie for free, if you wanted to actually 'hear' it, 'that's five bucks.'

"It's just as true today as it was when the first radio broadcast emerged from the static: Audio is the 'killer app.'"

Your thoughts on NAB? Write to radioworld@imaspub.com. 📧

'Smart phone'

Executives James Higginbotham and Robert Jordan co-founded International Demographics, which owns The Media Audit, in 1971. It currently has 200 employees in Houston.

The company's primary product is The Media Audit, a multimedia qualitative audience survey conducted in more than 80 markets. Clients include radio stations, television broadcasters, cable television operators, daily newspapers, outdoor media, advertising agencies and advertisers.

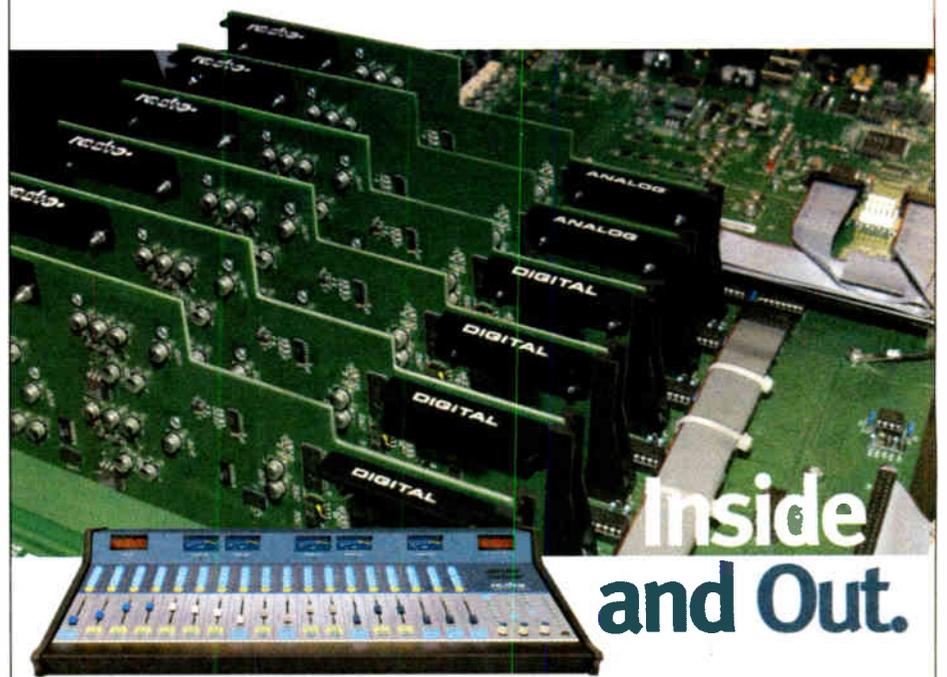
The Media Audit is proposing a smart cell phone device it is developing with Ipsos, a U.K.-based media research firm. The smart phone has an advanced operating system, similar to that of a computer, that allows it to add features as a personal digital assistant would.

Panel participants would carry a smart cell phone for an undetermined length of time while it tracks their listening automatically. For convenience, company officials say participants could keep their old cell phone number and import their former cell phone address book. The smart phones would be collected once the monitoring period is completed, anywhere from one to three years.

Company officials say the high-end cell phone tracks media exposure to watermark-encoded audio signals or by audio-matching signals that are not encoded.

"We have a piece of research hardware

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Ratings

► Continued from page 5

the way of the pager. Research shows that over 80 percent of all adults now carry cell phones, and approximately 5 percent own smart phones. We expect that within a few years the majority of cell phones sold will be smart phones," Beswick said.

The smart phone samples sound from the ambient audio environment through the microphone every several seconds, he said, then searches in its listening process for the "encode," similar to an "audio barcode" within the broadcast signal. The data is time-stamped and stored in the memory of the operating

system. Approximately every five minutes, data packets are sent to The Media Audit's data center in Houston via the General Packet Radio Service (GPRS), a mobile data service available to mobile phone users.

"The smart phone will mimic the listening range of the human ear," Beswick said, therefore accurately representing what a person would hear.

The Media Audit's smart phone system will have built-in data redundancy through its signal matching capabilities, he said.

"The fact is both audio-matching and encoding have their respective strengths. Indeed their strengths complement each other. For this reason we favor integrating both monitoring systems in our smart cell phone solution."

The Media Audit expected to launch an "expert witness test" in Houston this May — the same market in which Arbitron is testing its Portable People Meter — with test results to be shared with the radio industry later in the month.

The panel will include several dozen people equipped with smart cell phones. The participants will log their listening in a paper diary, which will later be compared to electronically gathered data.

The company expects to conduct a smart phone field test of 2,500 respondents in Houston later this year, which will also check parameters to determine response rates.

Total cost of the field test is expected to top \$5.5 million. The Media Audit will look to the radio industry to fund a majority of the field test, he said.

Media Audit says it has commitments from radio stations representing about "95 percent of the radio revenue" in the Houston market to encode their signals for smart phone testing.

That includes Cox Radio and Radio One stations, both of which have steadfastly refused to encode their broadcasts for Arbitron's PPM tests. Arbitron has said it expects Cox and Radio One to encode for the PPM if the technology wins the accreditation race.

The Media Audit initially would provide smart cell phones to those on its passive electronic measurement system panels, which will add to the cost of conducting the research. "However, we expect as time goes on our hardware costs will go way down as more and more people purchase smart phones."

Sample sizes will be approximately 2,000–2,500 for persons ages 12+ in markets such as Atlanta, Detroit, Miami and Houston.

"We believe sample size will have to grow with the increased media fragmentation as a result of (multicasting with) HD Radio, which could result in double or triple the number of local radio operations in some markets. Larger panels will yield more reliable research despite

"Logitek's great support helped me get our new studios going."

"When I started working on the new studios for KAXE, I was new to radio engineering so everything was a challenge. To make things even more interesting, KAXE was the first USA installation of the Logitek Mosaic console. Fortunately, Logitek was there for me every step of the way. With help, I successfully integrated two new Mosaic-based studios and the central wiring area with our ENCO system—everything looks and operates great, and our operators love the setup. Our Logitek system has been running at KAXE for over a year now. Our studios complement the wonderful look of our new facility and the Logitek system's flexibility is fantastic."

Dan Houg, Engineer, KAXE
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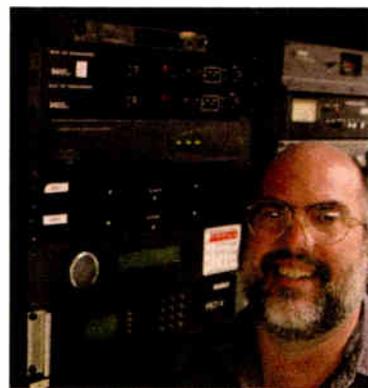

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A measurement device should not impact the way media is consumed.

— Jay Mattlin,
Mediamark Research

the expanding number of radio signals," Beswick said.

The costs for radio stations will go up a bit compared to the diary methodology, Beswick said, but will be a lot less than what Arbitron wants to charge for PPM.

Arbitron has contract proposals out to stations that would increase measurement costs from some 40 percent to 60 percent, depending on the products purchased, as previously reported in Radio World.

If eventually given the go-ahead, The Media Audit said it is willing to commit to deployment of its smart cell phone audience measurement system in 11 markets in 2007.

Arbitron will begin using PPM for real data collection in top markets starting with Houston this July and continuing in the top 10 markets by fall 2008; it plans to expand to the top 50 markets two to three years after that.

The Eurisko

Arbitron's other rival for America's electronic ratings system business comes from Mediamark Research.

Mediamark is a subsidiary of GfK Holdings, a Nuremberg, Germany-based market research company. Mediamark collects and analyzes data on consumer demographics, product and brand usage, and exposure to forms of advertising media. It has approximately 75 employees at its U.S. office in New York City.

Its entry into the three-way ratings
See RATINGS, page 8 ►



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World Radio History

COMREX

Ratings

► Continued from page 6

race is based on the Eurisko Media Monitor, developed by sister company Eurisko, an Italian marketing research institute. The company has made few public comments during the evaluation process.

The Eurisko device uses sound matching technology, which compares snippets of captured audio to electronically monitored broadcasts, said Jay Mattlin, Mediamark Research vice president for research and new ventures.

"The device has a microphone that picks up ambient sound. A fingerprint of that sound is stored and later compared to audio files from broadcast services. Our huge advantage is that we do not rely on the cooperation of the broadcasters. Audio does not have to be encoded, so we are not reliant on all radio stations participating," Mattlin said.

Panel participants will wear the cell-phone-sized Eurisko Media Monitor, which has a microphone to capture audio of the radio transmissions that panelists are exposed to, Mattlin explained.

Mattlin said the Eurisko Media Monitor has gone through validity testing by Radio Advertising Joint Audience Research, which has been comparing PPM and the Eurisko device for rollout in the U.K.



The Eurisko Media Monitor uses sound matching technology, which compares snippets of captured audio to electronically monitored broadcasts.

"The RAJAR simulation test deemed both the Media Monitor and PPM as acceptable potential measurement tools. However, we do feel we have advantages over PPM, including longer battery life and a more appealing-looking device," Mattlin said.

Arbitron has said it has increased the battery life of the PPM significantly.

Mediamark Research believes smart phone technology is "not quite as far

along" as the Eurisko, and there are other drawbacks to the smart phone, Mattlin said.

"We believe if you give people a smart phone, their media usage will change. For instance, they could start playing MP3s or downloading other content from the Web. A measurement device should not impact the way media is consumed. You would no longer be measuring true behavior."

(The Media Audit's Beswick said the research firm could "turn off" any smart phone software features, like MP3 players, that are determined to affect radio listening adversely.)

Mediamark Research officials met with members of the MRC evaluation team in March and pitched the Eurisko Media Monitor. However, there are no major field tests planned in the United States. As proof of performance, they point to the RAJAR testing in the U.K. as evidence that the Eurisko Media Monitor is a worthy candidate in the United States.

Conducting a test in this country "is up to the ratings evaluation team," said Mattlin. "The radio industry would need to step forward and say, 'We want a test,' and fund it as well. We would be happy to engage in such a test."

'Grueling' accreditation

Meanwhile, Arbitron officials say both The Media Audit and Mediamark are offering only concepts of electronic measurement services and have not conducted credible testing.

"Not a single claim of theirs has been backed up by research among consumers here in the United States," said Thom Mocarsky, vice president of communications for Arbitron.

"We have had three market trials in the U.S. and are in the middle of the evaluation team's audit. We have gone through a grueling accreditation process. We expect the radio industry to be as diligent with the rest in the field."

Mediamark's Mattlin acknowledged that Arbitron is the incumbent and has the "advantage of deep knowledge of the industry and the players" within the industry.

Two of the finalists also have addressed the cell phone-only household issue. Arbitron and The Media Audit say they will incorporate cell phone-only households in their samples.

Arbitron says it will recruit panelists by calling cell phones starting in 2008. The Media Audit officials say they will draw

samples of cell phone-only households if chosen to provide electronic ratings.

So what will the outcome be?

Several radio consultants contacted for this story said competition is good for any business, including Arbitron. However, it's fairly clear that Arbitron remains the ratings race leader to this point in their minds.

"Arbitron has needed an upgrade from the diary for a long time. They obviously know that. Because of their tests with the PPM the past few years I believe they are in the lead," said Ed Shane, president of Shane Media. "However, it's pretty clear that Clear Channel and others would like to see Arbitron's lead at least challenged."

Shane looks for The Media Audit and Mediamark to proceed with rigorous testing of their electronic radio rating systems.

"The industry deserves empirical data," Shane said. "I think we need to mix our data gathering. I've always been a fan of mixed methodologies to gain understanding from even the most recalcitrant respondent."

Holland Cooke, president of Holland Cooke Media, said, "It's hard to imagine Arbitron's PPM not emerging as the standard. They are much further down the road."

Cooke also said he has more knowledge of the PPM than the competitors' offerings because of various industry briefings on the technology. "Arbitron has been tweaking PPM with input from consultants, stations programmers, the ad community and other stakeholders. That has a lot of value."

But at least one radio consultant thinks it is a wide open race, thanks in part to the refusal of Cox and Radio One to encode their Houston stations for inclusion in Arbitron's PPM testing.

"I believe that, combined with Arbitron's failure to guarantee current clients a start at no rate increase, really has opened the door for The Media Audit and Mediamark. Plus, I really admire Clear Channel for jumpstarting the process," said Jaye Albright, partner with Albright & O'Malley Country Consulting/Radio IQ.

Albright said the various technologies being touted makes it seem at times as if there is no perfect system available.

"I believe the industry will have to compare them all and agree on what compromises are most effective for all parties involved." 🌐

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NEWS WATCH

Thorsteinson Replaces Wensinger At Harris

MELBOURNE, Fla. Former Leitch Technology President Tim Thorsteinson has taken the top job at Broadcast Communications Division at Harris.

He succeeds Jeremy Wensinger, who is being promoted after two years at Harris Broadcast.

Thorsteinson has been president of the Leitch Technology business unit since Harris acquired that company last October. He joined Leitch as president/CEO in late 2003 and Harris credits him for leading a financial turnaround and expansion there. Previously he was vice president of Grass Valley products for Thomson Broadcast & Media Solutions.

Wensinger is taking a senior leadership position within the Harris Government Communications Systems Division. He becomes group president of Integrated Systems and Services, where he will have responsibility for several business units: National Programs, Civil Programs, Homeland Security Programs, Technical Services and Maritime Communications Systems.

The changes officially take effect July 1, but leadership transitions begin now.

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◆ NEWSWATCH ◆

FMeXtra to Sweep 80 Stations

VALITIE, N.Y. Energy-Onix, which represents FMeXtra from Digital Radio Express, said the "Idea Bank" consortium of broadcasters has selected the FMeXtra digital subcarrier system as part of its digital radio strategy.

The Idea Bank consortium represents nearly 500 radio stations and meets twice a year to discuss issues that impact the future of radio. In April, the group said it would convert 80 stations to FMeXtra this year, according to Energy-Onix President

Bernard Wise.

WREC(FM) demo'ed FMeXtra over the air with two digital channels of stereo audio simultaneously with the primary stereo analog channel and RDS.

Production receivers will be available by the end of Q2.

WGUC's HD2 Uses Neural Audio

CINCINNATI WGUC(FM) has begun multicasting its digital channel. It is using a Neural Audio NeuStar Plus Digital Codec Pre-Conditioner. WGUC recently

added a jazz HD2 channel.

WGUC has been IBOC since 2003 with help from a grant from the Cinergy Foundation.

NeuStar Plus and the Next Generation NeuStar 4.0 debuted at NAB2006.

PRI Reorganizes

MINNEAPOLIS Public Radio International has shifted key management personnel under new President/CEO Alisa Miller in a reorganization the company says will be complete in July. The public radio program distributor says it wants to build and strengthen cross-platform capacity.

"Given the dramatic changes that are taking place in the way people access and consume content, it's more important than ever that we stay ahead of the game," said Miller, who promised "new direction and focus."

Several staff appointments were announced: Cindy Shuman, formerly CFO of PRI subsidiary Public Interactive, becomes senior VP of PRI Distribution and Business Development. Julia Mears, former director of PRI Brand Strategies and Sponsor Alliances, becomes VP of PRI Brand Management and Marketing Strategy.

Melinda Ward is now senior vice president of PRI Content, the department that supports the work of PRI producers.

Ward, Mears and Shuman assumed their new responsibilities in April. Two additional senior management positions have been created, a controller and an executive vice president, and interviews are in progress. The reorganization will be complete in July.

BE Installs HD-R In Paris

QUINCY, Ill. Broadcast Electronics has installed an FM HD Radio system on an independent station in Paris — the first station operating an IBOC system 24/7 in France, the supplier believes.

Towercast, in partnership with independent broadcast syndicate SIRT and NRJ Group, began broadcasting an HD Radio signal on 88.2 MHz in April using a BE low-powered transmission system. In the next phase of the trials, Towercast plans to multicast two or more channels of programming.

The blend-to-analog feature of IBOC appealed to Towercast, said a spokesman. The Eureka-147 system used elsewhere in the country is all digital.

Towercast is a subsidiary of NRJ Group and a privately held French tower company. It holds a test license to broadcast HD Radio from the French government; it also holds a test license to broadcast IBOC on 93.9 MHz, and the group will begin broadcasting a single channel of digital audio on that frequency in May. It eventually will add another program channel to test HD Radio multicasting as well as any channel spacing interference, according to BE.

International Dept. New for CEA

ARLINGTON, Va. The Consumer Electronics Association launched an international department and promoted five executives. The new International Department will try to expand relationships with associations and groups abroad and seek partnerships with international trade shows.

The department will also coordinate CEA international trade strategies and oversee its operations in China, which includes a partnership with the China Electronic Chamber of Commerce to produce the China International Consumer Electronics Show.

CEA staffer Elizabeth Hyman is now vice president, international to direct the department. Hyman previously served as senior director and tax/trade counsel.

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Avoid Huge FCC Tower Fines

by Henry A. Solomon



This article offers practical guidance to make sure your company knows the most important "rules of the road" and does not get into trouble with the FCC.

Though the FCC and Federal Aviation Administration have overlapping jurisdiction over communication towers, the commission takes the lead in handing out fines and imposing other sanctions for violations of its tower rules. Its jurisdiction, of course, extends to licensees and permittees.

But the agency enforces its rules against tower owners as well. FCC field office inspectors discover many tower violations during surprise visits to antenna sites.

Towers as a menace

In some instances the FAA takes the lead in responding to complaints by pilots. Generally, however, it refers cases to the FCC for enforcement action.

Why are fines, sometimes in the five- and six-figure range, imposed? The tower regulations of both agencies are designed to eliminate hazards to air navigation.

Noncompliant towers are regarded as menaces to air navigation. Owners of certain towers are required to register them in order to warn pilots of potentially dangerous conditions such as malfunctioning antenna obstruction lights. Likewise, reg-

ulations at both agencies impose continuing obligations in the areas of maintenance, record-keeping, reporting and painting and/or illumination.

The FCC's tower regulations take up barely eight pages in Part 17 of the Telecommunications portion of the Code of Federal Regulations (C.F.R.). Yet many tower owners haven't taken the time to familiarize themselves with the rules or simply are negligent. Consequently the FCC continues to levy hefty fines for infractions.

In enforcing its rules, the commission rarely excuses violators, particularly



Henry Solomon

when it uncovers multiple infractions. If the FCC determines that the same rule was violated on several occasions, it invariably finds that the violations were "repeated," and may fine the tower owner for each separate act or omission.

A finding of "willfulness" usually accompanies a determination that an infraction was repeated. The commission's forfeiture orders almost always explain that willfulness is imputed to the tower owner (and in some cases its tenants) even if the violator was *unaware* of the infractions.

Tower registration is one of the most often violated rules in Part 17. Towers subject to registration are registered at wireless.fcc.gov/antenna and owners are responsible for registration. However, as we shall see, in some cases tenants may suffer inconvenience as a result of their landlords' failure to register.

In the past, after completing construction and placing a new tower in operation, the owner simply filled out a notice of completion and sent it to the FCC along with the FAA study number. The law now requires that existing towers and towers under construction be registered if they are or will be higher than 60.96 meters (200 feet) above ground, or require a special aeronautical study.

As a first step, the FAA issues a Determination of No Hazard to Air Navigation. Thereafter, affected towers may be registered at the FCC.

Towers are exempt from the registration requirement if they are below 6.10 meters (20 feet), shielded by existing structures of a permanent and substantial character, or shielded by natural terrain features of equal or greater height.

However, for structures proposed in congested areas, the exemption applies only if the owner shows "beyond all reasonable doubt that the shielded tower would not adversely affect safety in air navigation." Once a tower has been registered, the FCC assigns it a unique number, called an Antenna Structure Registration, which must be posted at the base of the tower.

'Frozen' applications

Beware: An FCC broadcast licensee or permittee that is leasing space on a tower may be impacted if its landlord fails to comply with the registration requirement. For example, the applicant may find that its application has been "frozen" by the FCC's Media Bureau.

The freeze remains in effect until the structure's owner informs the applicant of the tower's ASR. Usually, the Media Bureau does not dismiss these incomplete applications.

However, if the bureau's backlog becomes too great, the FCC will start returning applications seeking authority to mount antennas on "phantom" towers. The Wireless Bureau is stricter: It simply rejects applications that lack ASR numbers.

Nor are the FAA and the FCC immune from civil liability for their acts or omissions. Before Al Gore invented the Internet and the FCC adopted its registration rule, the FAA and its predecessor agencies regulated tower safety by no hazard determinations and field inspections.

Unfortunately, those procedures were not foolproof. In one case, an FAA sectional chart failed to pinpoint the location of a 1,720-foot TV tower near a Wisconsin airport. Tragically, two passengers in a private plane died when their aircraft struck one of the "invisible" tower's guy wires.

A negligence suit was brought against the United States government under the Federal Tort Claims Act and both agencies were held liable by a federal judge. On appeal to the Sixth Circuit, a unanimous court ruled that the FAA failed to exercise due care in compiling its sectional chart.

Both the FAA and the FCC escaped the lower court's liability findings. Registration, no-hazard determinations and field inspections should make map defects a thing of the past.

Nor does compliance with the tower registration rule shield FCC licensees and permittees who want to relocate antennas or construct new towers. They may encounter processing delays.

Thus, the commission can reject an application if the tower — whether existing or proposed — is 304.80 meters (1,000 feet) above ground. In those cases an applicant must demonstrate that the tower will be constructed in a designated antenna farm area, or submit an FAA finding that the structure would *not* be a menace to air navigation. The FCC can waive the restriction for good cause, but such waivers are rare.

With few exceptions, registered tower must be painted and/or illuminated in accordance with FAA standards; FCC Part 17 cross-references the FAA's "marking and painting" specifications. It should come as no surprise that instances of noncompliance with those specifications are among the most serious and costly infractions of the FAA's and FCC's regulations. The requirements are also

See TOWER, page 14 ►

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Tower

► Continued from page 12
incorporated in the broadcast rules (C.F.R. Part 73).

Big, whopping fines

Speaking of fines, in addition to marking and lighting, tower owners are responsible for maintaining their structures so that they are conspicuous — in other words, visible to pilots. In one case, the FCC fined a radio station in New Mexico \$10,000, which was later reduced to \$8,000, for failing to paint its tower's cables. That fine is in line with penalties for similar airspace violations.

Consider, however, the FCC's 1996 forfeiture notice against Centel Cellular of North Carolina. The commission proposed a then-unprecedented fine of \$3 million, \$1 million for each of three violations of the tower safety rules: failure to notify the FAA prior to construction; failure to obtain a no-hazard determination; and failure to install required lighting of the tower.

After reviewing Centel's plea for mitigation, the commission exercised its discretion by reducing the fine to \$2 million.

Earlier, in 1989, Centel Cellular Company of Virginia entered into a Consent Decree with the FCC after the commission found that Centel's viola-

tions of the marking and lighting rules, which require notification to the FAA relating to an obstruction lighting failure, almost caused a helicopter to collide with Centel's cellular tower.

Consent Decrees are rare because they enable a rule violator to escape monetary liability. In the Centel-Virginia case, the violator promised

future compliance with the tower rules and agreed to conduct a nationwide tower safety campaign.

Keep in mind that a shared liability provision in the Communications Act takes aim at tower tenants as well as owners. Tenants and other lessees of tower space can be fined for their landlord's noncompliance with the painting and/or illumination rule. While indemnification or "hold harmless" provisions in tower leases may protect tenants from so-called secondary liability, they cannot insulate them against FCC forfeitures where the tower owner has been delinquent.

Owners of registered but unoccupied towers must continue to mark and light

them while they are standing. Additionally, the FCC can order a tower to be dismantled if the FAA determines there is a "reasonable possibility" that the structure poses a menace to air navigation.

Another rule in Part 17 charges parties acquiring registered towers to notify the FCC of ownership changes. In one case, the commission issued a Notice of

porary light outage exists on a structure at a specific location. After the first notice has expired, the owner is responsible for updating the notice at 15-day intervals until the malfunction has been corrected. At that time the owner again notifies the FAA to confirm that normal operations have resumed.

Additionally, tower owners are charged with maintaining a detailed record of any observed or otherwise known extinguishment or improper functioning of structure lights. An owner that fails to report light outages can count on a five-figure fine like the \$13,000 amount imposed last year for a tower at Knik, Alaska. That tower, in the middle of nowhere, had been inspected by the FCC's Anchorage Resident Agent's Office.

FAA, FCC notification

This April, the FCC fined a Gary, Ind., AM station \$16,000 for noncompliance with the tower registration requirement, failure to notify the FAA of a known antenna structure light outage and failure to exhibit the required red obstruction lighting. The forfeiture amount was reduced to \$4,000 based on the station's demonstrated inability to pay.

Given the adoption of TIA/EIA 222-G new wind loading standards for tower construction and alteration (*Radio World*, Jan. 18, 2006, p. 1), the need to strengthen towers to accommodate high-powered digital antennas and the FCC's explicit responsibilities under the National Historic Preservation Act, tower owners and broadcasters have a full plate.

However, familiarity with the FCC's and FAA's tower regulations should not take a back seat to these new requirements. Consider strict compliance with the tower rules a low-cost form of insurance against being hit with five- and six-figure FCC fines.

The author is an attorney in the Washington office of Garvey Schubert Barer. ☺

Tenants and other lessees of tower space can be fined for their landlord's noncompliance with the painting and/or illumination rule.

Apparent Liability to American Tower Corporation, citing 36 violations of the antenna structure rules and other safety provisions.

It turned out that ATC failed to notify the commission that it acquired 24 structures. The FCC took note of the multiple violations and proposed a \$212,000 fine.

In another case, the commission fined a new owner a relatively modest \$3,000 for not immediately notifying it of a change of ownership information on the ASR. The FCC's notification rule also requires tower owners to give written notice when construction of a tower has been completed, where a tower has been dismantled or where there is any change in structure height.

Tower owners are required to monitor their structures and keep records. They must monitor lights daily or install automatic alarm systems.

When a top beacon or other tower light is extinguished or malfunctions and the condition lasts for more than 30 minutes, the owner must report the condition to the FAA or the nearest Flight Service Station. The FAA promptly issues a Notice to Airman (NOTAM), which remains in effect for 15 days.

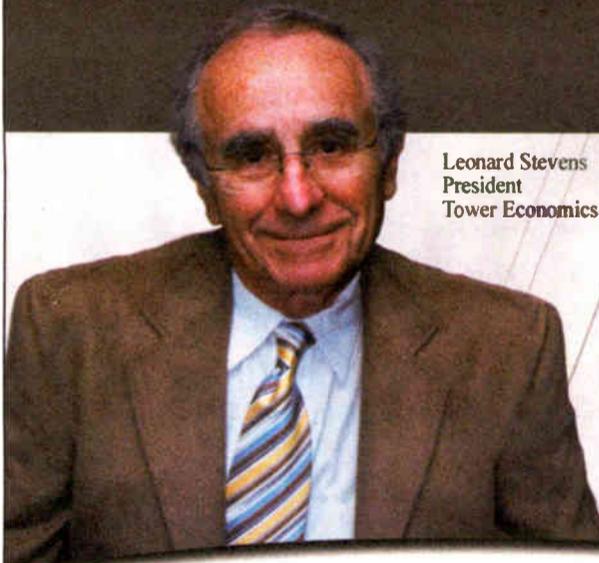
The notice advises aircraft that a tem-

"Accountability is indispensable to us

when putting up a new tower. That's why we deal exclusively with Sabre for our broadcast towers. Their people have been in the industry for years, and have a broad-based knowledge on all types of towers. Their construction department handles turnkey projects with ease, eliminating the need to hire subcontractors and worry about who is taking responsibility. We choose Sabre because we like the people, the product and the pricing."



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NEWS WATCH

News Roundup

CUMULUS MEDIA INC. hopes to close this month on its \$1.2 billion acquisition of the radio business of Susquehanna Pfaltzgraff. Cumulus Media, the second-largest radio company based on station count, will own or operate 345 radio stations in 67 U.S. media markets once the deal closes.

JAPAN'S SATELLITE DIGITAL multimedia broadcasting service, Mobile Broadcasting Corp., is carrying the Internet stream of New York Times-owned WQXR(FM) in New York. Marketed in Japan as MobaHO!, the stream carries the classical music programming of WQXR as well as some commercials and customized programming elements. WQXR is one of two classical music channels in the MobaHO! lineup and the only station imported from outside Japan, the companies said.

THE RAB is conducting a new ad campaign to promote radio to advertisers and agencies. The RAB also created a companion Web site.

VITEC Group Communications Ltd. was fined \$14,000 by the FCC for reportedly marketing unauthorized radio frequency devices. They were offered under the trade name Clear-Com Communication Systems. The complaint stated indicated that Vitec advertised an unapproved digital wireless intercom system called the "CellCom Digital Wireless Intercom" including marketing it at last year's NAB show.

BIRD DEFENDERS were rejected by the FCC in their claim that construction of Gulf Coast communication towers violates environmental laws. The case dated to 2002. The groups asked the FCC to require tower owners to prepare environmental assessments for about 5,800 existing towers and to require an Environmental Impact Statement evaluating the effects of all antenna structure registrations along the Gulf Coast, among other steps. The commission rejected the arguments in this case for various reasons while noting that many of the same issues are being considered in a separate FCC rulemaking proceeding still underway.

“We were building brand-new studios. Why use the same old tech?”

“Our company bought a station in San Diego, and we had to move the studios. Since the station would be a part of our Southern California network, we needed equipment



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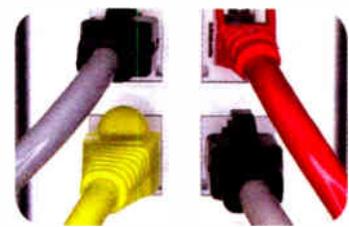


“I knew how expensive routing equipment was. I also knew we'd regret buying a system with fewer capabilities just to save money.



“More than anything, we wanted to avoid limiting our operations with the use of conventional routers. Most of those systems force you to plan, during installation, for every signal routing configuration you might ever possibly need. If your needs change, you either have

“And expanding the network couldn't be simpler. Just plug in more audio nodes and boom! you've got more inputs.



“I've worked with lots of equipment in the past 30 years, and Axia is by far the easiest system to install and get up to speed with. There are just a few cables instead of hundreds; the entire installation – with testing – took just *one week*.”



to re-wire or settle for operational compromises. Not very user-friendly! Making sure that the system was easy for non-technical air talent to understand and operate was critical, too.

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GUEST COMMENTARY

IBOC Naysayers Fear Change

*Educator Says It's Time for Radio
To Leave the Warm Glow of the 12AV6*

by Edward Montgomery

After reading letters to the editor and excerpts of publicly-filed comments from individuals opposed to the switch to IBOC, Ed Montgomery, an electronics and communications teacher for 34 years, prepared this opinion which he says refers "to another time when a broadcast signal was changed to provide better service even though it introduced what was considered a 'penalty.'"

Human beings generally cling to the status quo. When something new comes along, trepidation often results.

When Thomas Edison developed electricity, the gaslight companies proclaimed the dangers of the new form of energy. "Get a horse!" was the cry for many at the turn of the 19th to the 20th centuries, when the automobile came on the scene.

My father would never buy a car with a radio or an automatic transmission. His standard response to the latter was, "The transmissions break."

He was a firm believer that car radios didn't work outside a specific area. We lived in northern New Jersey. He

believed that if you got to Greenwood Lake, which borders New York, the radio would cease to operate. This was empirical evidence he acquired from using a company car with a radio.

What he never understood was that WAAT(AM) — now WWDJ — was a five-kilowatt that couldn't send a signal that distance. It was the only station to which he listened.

Radio purists

But a lot of people like that act out of ignorance. Others use intentional deception to protect their products. The company with the slogan "the most trusted name in electronics" did all it could to suppress the development of FM broadcasting.

And among those who were there, who can forget Hollywood executives in the early 1950s writing off television, saying the average person would never exchange a giant theater screen for a small flickering box in their homes?

That battle created two classes of performers, writers, producers and directors: The elite Hollywood professionals, and the "underlings" in television, mostly based in New York City.

We live in an age of another group of purists who seem to believe that true radio broadcasting should consist of Heising Modulation at the transmitter and five-tube superheterodyne receivers. These electronic Luddites fear any change to radio while EMI noise, iPods, Webcasting, satellite radio and those custom mix music CDs take more of the listening audience away each day.

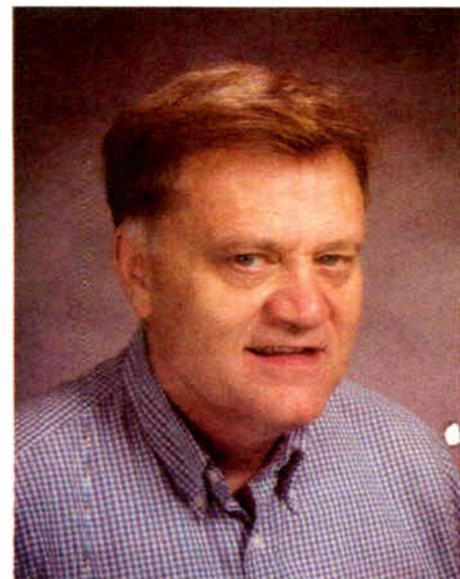
Diversity of program distribution is taking listeners from the traditional broadcaster. Listeners are leaving and they are not likely to return, and this is affecting FM as well as AM.

It's time to leave the warm glow of the 12AV6.

Listening habits have changed over the years. Two-income families have pretty much eliminated the DJ format with family-oriented humor between every song integrating their banter into the commercial clusters. Talk radio has gathered the political and sports demographics and the narrow rotation of some forms of music.

With just a few conglomerates owning most of the stations, the formats are very similar. A decade ago more nighttime radio stations were added to the old clear channel frequencies, adding more noise, limiting their effectiveness at great distances.

The primary service is the area that needs signal free from most noise with a good-fidelity stereo signal, at a minimum. The IBOC system can deliver that. Yes, it does inject noise in the first-adjacent sidebands in that primary zone;



Ed Montgomery

to be reduced to accommodate them.

With FM stereo, sum and difference channels of equal loudness were transmitted, severely reducing the main channel deviation. The result was the "stereo penalty," adding noise, often resulting in moving transmitters to better locations and increasing power. Even that didn't always do the job, especially for the Class A stations.

The low receiver sensitivity of that era contributed to a reduced coverage area. The difference then was that there were far fewer FM listeners then than there are AM listeners today. I know of no complaints surrounding the addition of the stereo signal. Most say it saved the band.

There is another way to solve the digital broadcasting dilemma: Follow the path Armstrong did — developing an

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We live in an age of another group of purists
who seem to believe that true radio
broadcasting should consist of Heising
Modulation at the transmitter and five-tube
super heterodyne receivers.

but few people have a need to listen to a station a time zone away anymore.

Sixty years ago I would not have favored this change. But back then, living in a more rural America, we had broad-banded AM receivers and a need to hear Fred Allen, Eddie Cantor or the latest news from the war. That's no longer the case.

The best way to describe what is happening is that the radio signals will change. Within the limits of keeping most of the analog signal, it is a small price to pay to reduce noise, improve fidelity and add more services.

'Stereo penalty'

This is not the first time radio signals have changed.

When Edwin Armstrong developed wide-band FM he established 100 percent modulation as a frequency deviation of +/- 75 kHz producing the best signal-to-noise ratio. When subcarriers were added, the main channel modulation had

entirely new form of broadcasting, promoting it himself, fending off those who wanted him to fail. He gathered a significant number of listeners along The Yankee Network.

The battle with RCA was too much, costing his life; but his wife prevailed. There were no conglomerate owners back then, and a little more interest by local broadcasters to experiment.

Few have the willingness to do that today.

Montgomery is laboratory director for video technology and communications at the Thomas Jefferson High School for Science and Technology in Fairfax, Va.

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And now, Axia has a cool new modular control surface: Element. Scalable from four to forty faders, you can build the ideal surface for every studio. Element's abundant outputs and flexible architecture can be switched between stereo and surround mixing. Its info-rich user display, built-in router control, and integrated phone and codec support simplify the most complex shows. You'll never outgrow it.

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Simple Methods For Securing Signs

by John Bisset

Scott Todd of Salem's Twin Cities KKMS(AM) in Eagan, Minn., offers a tip that can save your department some money.

When Scott replaces florescent lamps, he writes the installation date on one of the end caps. When he discovers a premature lamp failure, he gets a free replacement from his supplier.

Recently, he had a U-bend bulb fail 30 months into a 36-month warrantee. Now that he's upgrading to Triten 50 full-spectrum lamps, it'll be even more critical, as they're more expensive.

This is just another way to show management that you are saving the station money. It only takes a few seconds to jot the date on the end cap. Thanks, Scott, for another demonstration that engineers aren't always *spending* money.

Scott Todd can be reached at stodd@kkms.com.

★ ★ ★

Speaking of florescent tubes, Paul Shulins, market engineer for Greater Media's Boston cluster, showed me a neat find to protect those florescent

lamp tubes.

Fig. 1 is a clear plastic sleeve that has been slipped over the tube prior to installation. As you can see from the brightness of the photo, the clear plastic tube does not affect lighting, but serves to protect you — and the surroundings — should the tube break.

The sleeve offers some protection against dings, but its main purpose is to contain the broken glass and dust should the bulb break. An inexpensive safety device, these sleeves are available from any electrical supplier.

Reach Paul at pshulins@greatermediaboston.com.

★ ★ ★

When he's not sending us tips, Scott Todd utilizes the resources of the Radio-Tech listserv of Dave Biondi's B-Net to get engineering feedback. A recent query is a case in point.

Scott asked the brain trust what's the most secure way to fasten a metal sign to a chain link fence? He realizes nothing is foolproof but is searching for something a bit tougher than plastic tie wraps to keep souvenir hunters from walking off with his new RF warning signs.



Fig. 1: A clear plastic sleeve protects florescent bulbs.

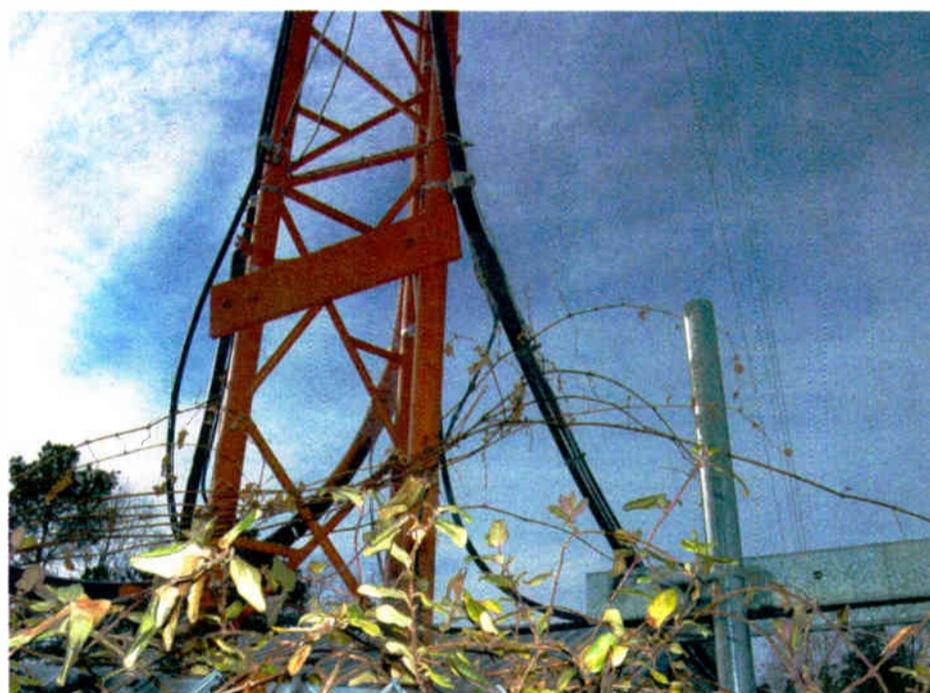


Fig. 2: Heavy wire, in addition to securing signs, can be used as coax tie-downs on towers.

And the suggestions poured in. Mark Ness said go to the fence department at Lowes and pick up some of their fence ties. These are 1/8-inch diameter aluminum wires, used to secure fencing material to the support posts. You can twist them pretty tight with side cutters. The best thing is that these ties will not rust. Mark Ness can be reached at marknessathome@adelphia.net.

Bobby Gray suggests cutting two pieces of plywood to the exact size of the sign. Paint both pieces. Drill 4 holes through both pieces of wood and the sign at the same time. Mount the sign and one piece of wood to the front of the fence (making a chain-link sandwich) using threaded bolts, nuts and washers. After tightening, mangle the threads below the nut. They'll have to take the whole fence to get the sign off.

Bobby's been doing this for years,

and his signs are right where they belong. Bobby Gray can be reached at bobbygray@espn1080.com.

Dave Fortenberry at KTKZ(AM/FM) has never had a theft problem, but writes that he uses #14 gauge insulated black house wire for his ties. The wire can double as coax tie-downs on towers, too, and there's no sun-rot problem. Dave can be reached at dave@ktkz.com.

Fig. 2 shows insulated black house wire doubling as coax tie-down on towers. However, watch how you support coaxial line with this wire. Fig. 3 shows how strong coax tie-down wire can be, to the point that the transmission line has made a nasty bend!

Mike McCarthy uses #11 or #9 gauge tie wire, which is as tough as the fence mesh itself. Mike adds: Good luck twisting; this is heavy-duty wire! The tie wire is available at hardware or farm supply houses. Mike can be reached at

See WORKBENCH, page 19 ▶



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Workbench

► Continued from page 18
mre@ais.net.

If you use the tie wire, mount the sign *behind* the chain link fence. It makes retrieving the sign a bit more difficult for the souvenir hunter, should they clip the fastening wire.

And then there was a comment from Steve Shaffer of Minds Eye Information Service in Belleville, Ill. Steve writes that when he was stationed in Guantanamo Bay, Cuba, they had no theft issues; their towers were in a mine field!

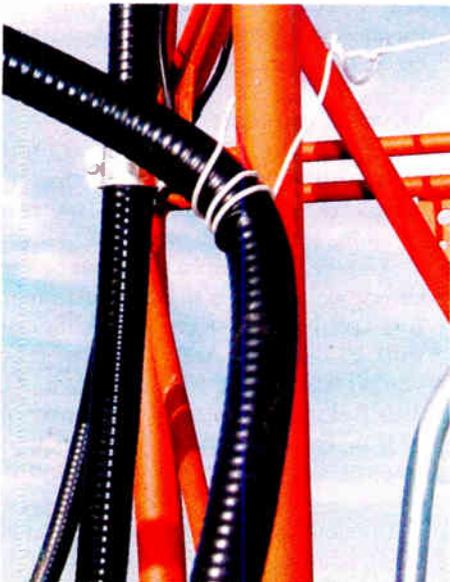


Fig. 3: Use caution when flexing coaxial cable.

Probably something every one of us has dreamed about when we encounter vandalism at our sites.

Steve can be reached at skshaffer@charter.net.

For more information on Radio-Tech and Broadcast Net, go to www.broadcast.net.

★ ★ ★

This is the time of year for outdoor measurements; however, not every station has the budget to own test instrumentation.

Whether it's impedance, field intensity or NRSC compliance measurements you have planned, Mike Phelps at SCMS sends a reminder that the company has an assortment of this test equipment for weekly, bi-weekly, and monthly rental. Here's a link to their rental gear: www.scmsinc.com/SCMSrental.htm.

I'll add my own 2 cents here: Use caution when renting test equipment. Not all rental companies are as ethical as SCMS. Some will keep your deposit for months after the equipment is returned, or rent broken or out-of-calibration equipment, and try to charge you for the repairs when it's returned! This is not the case with SCMS, but do rent from an established and reputable company.

Mike Phelps can be reached at mikep@scmsinc.com.

John Bisset has worked as a chief engineer and contract engineer for more than 30 years. He is the northeast regional sales manager for Broadcast Electronics. 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. ●

MARKET PLACE

RFS Has Color-Coded Cell-Tape

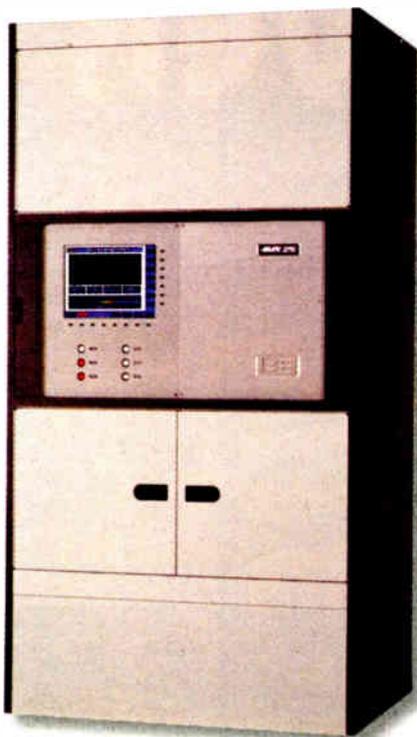
Here's a product from the world of cell carriers that might find use in other applications.

Radio Frequency Systems has an alternative to traditional butyl rubber sealant tapes. Its Cell-Tape weather sealant and marking tape is made of clean, self-adhesive silicone that fuses to produce UV-protected air- and water-tight bonds. The company touts it for its "easy-on/easy-off" mess-free application.

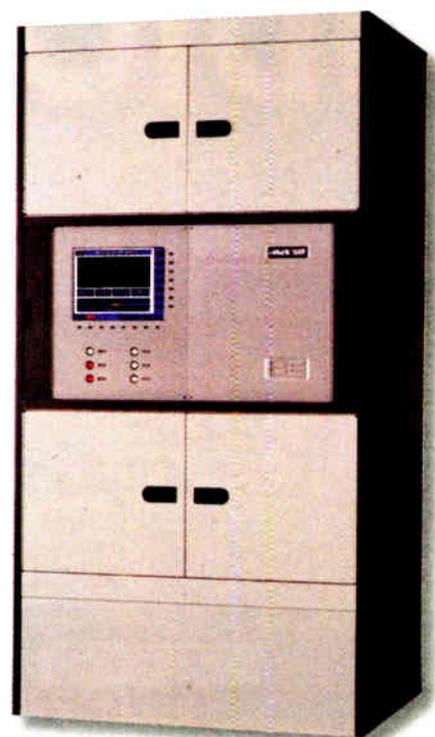
"With six color options for easy tower-top cable identification, Cell-Tape can elongate by 300 percent, stretching tight budgets as well as delivering tight protection."

The color range allows identification of RF, power and control cables at the tower top, the company said. It can withstand temperatures from -60 to 500 degrees Fahrenheit, and is appropriate for applications up to 12,000 Volts.

For information call the company in Connecticut at (203) 630-3311 or visit www.rfsworld.com.

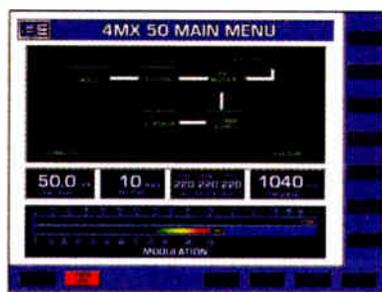


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WIRED FOR SOUND

A Vacuum-Filled Brain

by Steve Lampen

Past articles in the *Wired for Sound Series* are online at www.rwonline.com.

In the March 29 issue we talked a bit about those high-end “home theater” stores, with their speaker cables that are \$10 per foot. Of course, those are “entry-level” speaker cables, for beginners whose ears are not tuned (or is it “burned in” — I can never remember).

The ultimate for me was some speaker cables I saw at the Consumer Electronics Show in Las Vegas a couple of years ago.

If you ever have a chance to go to that show, don't miss it. Makes NAB look like a clambake! Last year 146,000 people were at the show. And you see the weirdest stuff.

Pump it up and out

These speaker cables were, I kid you not, vacuum-filled speaker cables. They were \$10,000 a pair and were big hoses, with all the air pumped out. There were valves at each end, but don't turn them. If you did, air would rush in and air, as we know, is not as good a dielectric as a vacuum. Vacuum is the ultimate. So, of

course, you could hear the difference.

For 10 grand you'd *better* hear a difference!

The problem with this is that a vacuum has, by definition, a dielectric constant of 1. And air, which is mostly nitrogen, has a dielectric constant of 1.0167, darn close to 1.

So we broadcasters are missing the boat here. Obviously, we need to show up at CES with some nitrogen-filled speaker cables. I need a big tank in my home theater. Or how about a dry air compressor on your speaker cables? And we do that all the time.

Hey, you want low resistance. How about hard line as speaker cable? I can just see the mounting hardware in my living room. Of course, I would have to start looking for another *wife*, but the sound would be amazing, right? No?

Because, as you well know, this is all marketing, not science.

This is the problem I have when I go to CES. I talk engineering, they talk marketing. It's like being in a foreign country.

And the real problem is that these exhibitors truly believe that they, too, are speaking engineering-ese, because they have taken a grain of truth, such as dielectric constant, and taken it to absurdity. You can do that with any cable specification, resistance, capacitance, inductance, impedance, return loss, skin effect.

Measuring stuff

Oh, yes, all of these are real things. But many of them don't even matter at audio frequencies. It's like worrying about the aerodynamics of your golf cart.

And they think because it can be measured, well, then it makes a difference. But you broadcast engineers measure stuff all the time. And you know before you do what is and isn't important, what does and does not make a difference.

How can we communicate this to our friends in the consumer electronics world?

I remember back in 1964 (which dates me) a company that made test gear, NLS, Non-Linear Systems, decided to bring out an FM receiver. This was a piece of home equipment built like a professional piece of gear. It was truly amazing. It was easy to open up. There was a motherboard with modules that plugged in,

These speaker cables were — I kid you not — vacuum-filled speaker cables. They cost \$10,000 a pair.

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which was unheard of at the time. You could hot-swap all the cards. When you took out the stereo decoder board, the receiver simply went to mono. And it had nixie tube digital readouts on the front panels showing the station you were tuning to, signal strength, everything. Nobody had ever seen anything like it.

So what happened? It was the biggest flop in the hi-fi world that year. Sure it was expensive. You could drop the thing and it would just keep on working. But it looked like test gear, not some spaceship, and nobody was interested.

So sadly, if we tried the same thing today, if Tektronix or Agilent brought out a DVD player or power amp, it would be a compete dud in the consumer world. The reason? No pseudo-science, no marketing. They would be relying on something unheard of in the consumer world: the truth!

I will now get off my soapbox until next time.

Steve Lampen's book "The Audio-Video Cable Installer's Pocket Guide" is published by McGraw-Hill. He can be reached at shlampen@aol.com.

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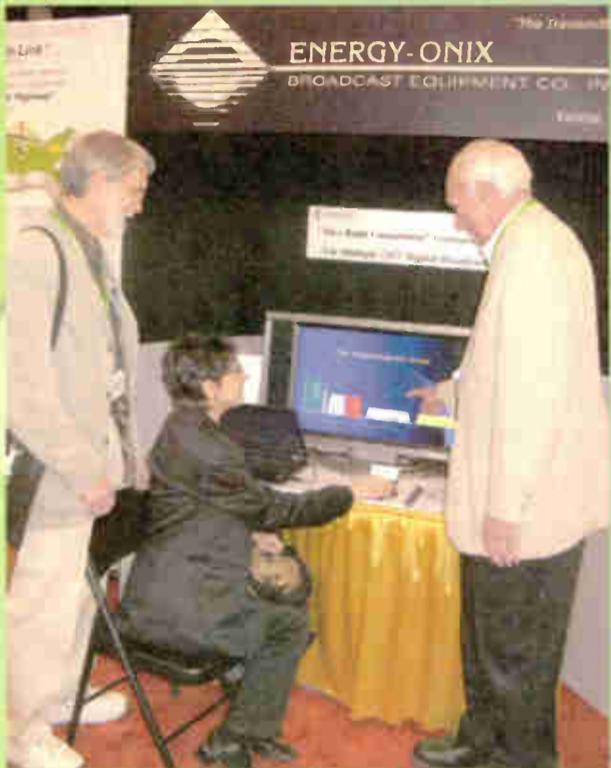
NAB 2006

THE WORLD'S LARGEST ELECTRONIC MEDIA SHOW

Photo Gallery



Photo by C. B.



◀ Paul Swedenberg, left, and Nancy Gordon of HAVE listen as Bernard Wise of Energy-Onix explains the Digital Radio Express FMeXtra system. The Idea Bank consortium of broadcasters recently decided to put the digital subcarrier technology on 80 stations.

Photo by Bob Kennedy



▲ NAB presented its Distinguished Service Award to Dan Rather, Tom Brokaw and the late Peter Jennings. Rather, left, thanks NAB Joint Board Chair Bruce Reese and President/CEO David Rehr.

Photo by Paul McLean

◀ Several exhibitors showed off the new \$49 iPod Radio Remote, which combines a wired remote control with FM radio capabilities. The unit displays RDS station and song information on the iPod screen. Christophe Poulain of Audemat-Aztec demonstrates.



▶ A pause to refresh in the dMarc/Google booth. Google recently acquired dMarc Broadcasting in a deal valued at \$102 million cash plus additional contingency payments. Russ Ketchum, Jennifer Sinay and Scott Silverman work out of the Google office in Irvine, Calif.

Photo by Bob Kennedy



Photo by David Gentry

▼ Away from the show, radio goes on in Las Vegas. On Tuesday morning, veteran talk host Tru Hawkins mans the board at KDWN(AM)'s studios in the Plaza Hotel downtown.



Photo by Scott F. Bush

More photos on page 36

▲ Jason Barnes of Beasley Broadcasting, left, discusses HD Radio in the KSTJ(FM) truck with Michelle Mazzara of BMI.

Product Showcase



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Manual Is Disaster Recovery Template

A Look at the Local Radio Station Model Disaster Recovery Plan & Incident Response Manual

by John M. Lyons

It came more than four years since 9/11 — and three months after last summer's hurricanes — but a formal disaster recovery manual for radio stations is available.

While many of us have prepared such manuals in our minds, this one is in print and ready for you to adapt for your station.

The "Local Radio Station Model Disaster Recovery Plan & Incident Response Manual" was developed by the Toolkit Working Group for the Media Security and Reliability Council. Information on how to download the manual accompanies this article.

Its introduction states: "Disaster recovery planning is a practical approach to contingency and risk management designed to reduce the consequences associated with an extended disruption of essential services. The scope of this document is to provide guidelines to develop a short term Disaster Recovery Plan (DRP) and Incident Response Manual ... for use as a tool by your organization for the timely resumption of essential services in emergency situations.

"Long-term Disaster Recovery plans, and business recovery issues, while important, are beyond the scope of this document."

The authors add that the manual is generic, designed to serve as a template.

Bob Ross, senior vice president of CBS East Coast Operations, chaired the Toolkit Working Group Chair. He said, "We searched all over the Internet and in books and found no documents that related to a broadcast entity, so one had to be developed."

A lengthy list of broadcasters and people from related industries took part. Ross thanked several in particular for their work, including Sara Allen of Ciara Enterprises; Jay Adrick of Harris

Broadcast; Joe Hernandez, NBC; Charlie Fagan, CBS; Ben Brinitzer, Clear Channel Radio; and Andy Scott of the National Cable & Telecommunications Association, who was the Toolkit Working Group vice chair.

Without Scott's extra effort, Ross added, "We would not have these documents today."

Adrick, vice president of broadcast technology of Harris, is a member of the Toolkit Committee. He said, "The cooperative effort of the Toolkit Group and the fact that it consisted of a good representation of all segments of the broadcasting business made assembly of this

manual possible."

He added that the members of the Toolkit Group "are veterans of many years in the field and have had experiences in various disaster recovery situations including 9/11, the Oklahoma City bombing, Hurricane Katrina, etc. and this helped in the creation of a document that works in the real world."

A 'how to'

After a first quick pass through the 56-page manual, I thought, "Okay, another 'how to' book makes the scene." The manual starts you thinking about whether or not you have such a plan in place for your facility.

The systematic approach by the authors, their use of specific chapter topics, the tables and templates give a step-by-

tion could be going off in different directions with the results catastrophic.

The manual states: "As you formulate your disaster recovery plans you should ask yourself what you would do in the event your facility and all of the day-to-day operational resources you use were no longer available."

Food for thought? You bet. What are your vulnerabilities? Have you really given them your full attention? Where do you operate from, if your primary studio or transmitter is knocked out? Do you have a backup studio site, or a backup transmitter site?

I have seen stations place their main and backup facilities in the same building, with their main and backup antennas on the same tower. What kind of protection does this afford you? That answer is obvious.

The manual walks you through the assessment process complete with a four-page checklist that can be adapted for

All members of the Incident Response Team should carry a photo ID or other recognized credentials in order to carry out recovery procedures and gain access to essential facilities and equipment during times of emergencies. Members of the Incident Response Team are listed in Table 6.

Table 6: Incident response team

Name	Title	Contact	Responsibilities
		Office: Home: Cell:	

Employee:
A list of active employees is available in Table 7. All personnel should carry a photo ID.

Table 7: Employee contact information

Name	Title	Contact	Responsibilities
		Office: Home: Cell:	

Corporate:
A list of key corporate contacts is listed in Table 8.

Table 8: Corporate contact information

Name	Title	Contact	Responsibilities
		Office: Home: Cell:	

Media:
In the event that an emergency situation requires coordination with the local Radio, Newspaper, Television and other media contacts are listed in Table 9.

Table 9: Media contact information

Company Information	Representative	Contact
		Office: Home: Cell:

The manual walks you through the creation of a Key Contacts list including your own Incident Response Team.

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step guide that you can use immediately to prepare your station/facility should any or all of it becomes non-functional for whatever reason, whether natural, man-made or civil disorder.

The reference sources that are identified, and the suggested reading and other resources section, cite a good many books and Web sites to get you even more information from government agencies, the business community and other sources.

The authors start you off on the first page, showing where you can update the status of your own document as it goes through the changes from a work in progress to a workable disaster recovery plan.

From its introduction through Appendix E, the manual shows you how to develop your own disaster recovery plan using this manual as your step-by-step guide.

Prompting answers

The following questions are addressed: What is "disaster recovery planning" and why is it important? What are the objectives? What are your requirements? How do you define the terms relative to disaster recovery and incident response?

By standardizing on these items, everyone in your organization can be on the same page and your plan can be successful; otherwise, everyone in your organiza-

any unique requirements particular to your facility.

Outlined are various test scenarios and how to schedule a "Disaster Recovery Plan Test." These tests are not only for the human component of your facility but for the equipment as well. If you never test your emergency generator or backup facility, will it be there when needed? Do your personnel know how to evacuate the facility and regroup at the assigned meeting place?

Planned testing at regular intervals is a necessity. The manual has information on Scope and Type of Plan Testing, Site Specific Exercises and Scheduling.

You are instructed on how to monitor the tests and how to assess them, charting a Plan Testing History. The manual has a large section on Vulnerability Assessment Guidelines. Use this as a guideline and add your facility specific items to it.

A section on Emergency Procedures covers job responsibilities for the Incident Response Team and well as management and staff.

"Declaring an Emergency" and the "Personnel Authorized to Declare an Emergency" are covered next, from Initial Assessment through Evacuation Procedures. Internal and external communications during an emergency are

See DISASTER, page 26 ▶

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"Continental Electronics Corporation is excited to enter into this strategic product alliance with Nautel.

The two companies bring together unique synergies that are unparalleled within the broadcast industry, benefiting the end user," said John Uvodich, President and CEO of Continental Electronics.

"Both Continental and Nautel have impeccable reputations and long-standing relationships with major clients around the world." stated Peter Conlon, President and CEO of Nautel. "I am confident that this exciting relationship will bring significant benefits to those clients, as well as to new customers, and will continue to serve Nautel's growth in business and market presence."

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Surround

► Continued from page 1

He noted the availability of audio on DVD surround media and likened it to earlier industry transitions — from AM to FM, from mono to stereo and from 45s to LPs.

WZLX will hold off on promoting 5.1 surround on the air until there are compatible MPEG Surround receivers in the market, said Church and Foti, who said MPEG has developed a reference design for receiver makers.

Thrill

Church calls surround broadcasting a pending “cultural shift.” But lack of receivers that can decode MPEG Surround is an obstacle, said several engineers on the show floor asked to comment. Some also mentioned MPEG’s use of 5 kilobits of data per second in steering information for its technology, bits that stations might prefer to use for data services or possibly another channel on their IBOC signal. But they also gave MPEG credit for reducing that number



Steve Church of Telos Systems, left, announces the WZLX surround format as Harald Popp of Fraunhofer and Paul Donovan of CBS look on.

from 16 to 5 kbps.

More stations are interested in adapting studios and music formats to surround sound, according to Foti, who said classic rock and classical formats currently have the most music recorded in 5.1 surround. Telos/Omnia is helping

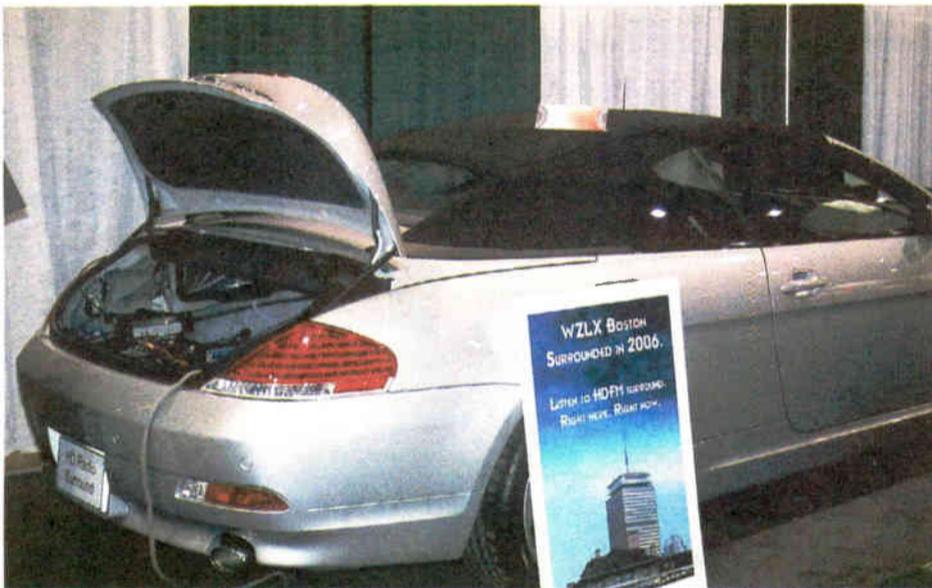
WZLX convert its record library to surround, and Fraunhofer is providing the MPEG Surround encoder.

Paul Donovan, CBS Radio director of engineering Northeast, said the 5.1 surround sound would create “additional thrill and excitement for our audience.”

At the Telos/Omnia booth at NAB2006, attendees could hear a preview of what WZLX would sound like in a car and home theater setting. BMW provided two vehicles for the demo, one in the Telos/Omnia booth and the other in the 5.1 Surround Sound Pavilion, where several surround sound technologies were demonstrated.

Telos/Omnia has been championing the MPEG Surround sound system in the United States. Fraunhofer, Coding Technologies, Philips and Agere Systems cooperated on the development of MPEG Surround technology.

MPEG Surround is one of four technologies being studied by the National Radio Systems Committee for compatibility with HD Radio. The others are Dolby Pro Logic II, SRS Labs’ Circle Surround and Neural Audio’s Neural Surround. Those companies say their systems are practical because receivers in the market already use their technology.



Attendees could hear a preview of WZLX in MPEG 5.1 surround sound in a BMW at the Telos/Omnia booth.

Disaster

► Continued from page 24

discussed in detail as well as the Incident Command Center and its Primary and Secondary locations.

Whom to call

Key Contacts play an important role during an emergency and for the recovery afterwards. Your local Incident Response Team may consist of your general manager and key department heads, but your contacts should include a chart of all active employees, so you can quickly get in contact with them to check their whereabouts and condition after an incident.

The list also should include corporate contacts, media contacts, your suppliers and vendors as well as medical and emergency teams such as police, fire, EMS and facility maintenance personnel. The manual shows an example of how to chart these people and a listing of their responsibilities.

Appendix D gives in-depth attention to your Emergency Evacuation Plan, covering the gamut from purpose and objectives through safety monitors, alerting occupants, evacuation procedures for facility occupants and disabled occupants to accountability procedures for emergency evacuation.

Recovery strategies are discussed as well as training and communications; and the manual concludes with a small section on site-specific information, where you can add items unique to your facility such as your floor plan, evacuation routes, designated meeting areas, exits and fire alarm boxes.

Cooperation between stations and among station groups, local television and cable companies should be included in your recovery strategy.

The appendices are loaded with templates that you can use to develop your site-specific plans. Finally, the bibliography has a wealth of locations where you can get additional information.

This manual is a model that could and should be used as a template to develop and implement your own Disaster Recovery Plan and Incident Manual. The authors are to be congratulated on its thoroughness.

John M. Lyons, CPBE, NCE, is assistant vice president/director of broadcast communications for The Durst Organization. The company is the owner/operator of the 4 Times Square Tower facility, which houses 10 FM radio and six TV stations in primary and backup modes. It is the first building to have complete First Responder incident communications coverage. Lyons said the balance of the portfolio’s First Responder system will be online by the third quarter of this year.

The Info

The “Local Radio Station Model Disaster Recovery Plan & Incident Response Manual” was developed by the Toolkit Working Group for the Media Security and Reliability Council. Download the PDF for free at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-262742A4.pdf

Check out the Media Security and Reliability Council’s Web site www.mediasecurity.org for additional plans and recommendations.

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SBE NEWS

SBE Sets Strategic Planning Session

by Barry Thomas

Barry Thomas, CPBE, CBNT, is SBE treasurer and Strategic Planning Committee Chair.

The broadcasting industry has seen a huge number of changes during the last 20 years. Many of those changes are based in technology and, therefore, affect broadcast engineers.

Broadcast engineering has had to both learn about the technology and then educate industry about it. Technology has vastly shifted the way we all do business.

The Society of Broadcast Engineers was formed to support and promote broadcast engineering and has helped build the careers of thousands of engineers working today. The Society has dedicated itself to offering tools and resources to promote broadcast engineers and provide the means to measure their skills.

SBE has also become a significant voice for technical issues to the FCC and the industry at large. The Society has built education and training programs to help engineers build their skills and teach the next generation of broadcast technical professionals.

With the massive changes not only in technology but also to the industry landscape, SBE is positioned to represent and support broadcast engineers as no other organization can.

Questions first

Looking forward, the Society must evaluate how to continue its mission and reflect the massive changes we all face.

One way SBE communicates to its membership is through our dedicated chapter liaison members, assigned to local chapters. Information gathered by chapter liaisons is disbursed during the

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regular meets of the SBE Board of Directors or Executive Committee. Decisions are made during those meetings to steer the organization, but they are a part of a huge workload that includes the operating business of the Society.

Sometimes the Society must step back and take a more fundamental approach to the question and meet specifically to discuss the future and plot the course of the Society. SBE occasionally schedules dedicated strategic planning meetings to do this. The most recent was held three years ago and resulted in significant improvements in member communication and services.

Sometimes the Society must step back and take a more fundamental approach to the question and meet specifically to discuss the future.

These meetings are critical in guiding the Society and improving member services and focusing the energy of the organization toward specific goals.

The Executive Committee of the Society of Broadcast Engineers has approved a plan to schedule a strategic planning meeting July 8 in Kansas City, Mo. The following day, the SBE Executive Committee will meet and can act immediately on information gleaned from the strategic planning.

A trained facilitator will lead the session and will be instrumental in offering unbiased guidance for the discussions and help the attendees recognize and articulate the Society's needs and build consensus on the best ways to chart SBE's course.

SBE is soliciting and welcomes input and participation from the entire membership to get the greatest number and quality of perspectives. SBE has invited representatives of each chapter to attend



is urged to attend and actively participate in the discussions.

The results of such a meeting should be questions, suggestions and recommendations that apply to the chapter as well as the national organization that can be brought to the summer strategic planning meeting. If a representative from the chapter cannot attend, SBE urges engineers to make those results and opinions known to its SBE local chapter liaison or any SBE Board member. Chapter liaison assignments can be found on the SBE Web site at www.sbe.org/Brd_Chap_Liaisons.php.

For more information on the strategic planning meeting, please visit the SBE Web site at www.sbe.org.

How would you answer the questions listed above? Comment on this or any story to radioworld@imaspub.com.

WE GIVE YOU STIMSON

Name: Leslie Paula Stimson

Title: News Editor/Washington Bureau Chief

Experience: 26 years of industry experience, including more articles on IBOC DAB than any journalist in the world. Former reporter for radio stations, VOA, Maryland News Network, MPR, McGraw-Hill, NAB's Radio Week, NAB Daily News and Radio Business Report.

Speaker/Panel Moderator: Consumer Electronics Association, Federal Communications Bar Association and regional equipment shows

Heroes: My husband, and my late parents Catherine and Burt Stimson



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and encourages even non-members to support these representatives with insights and recommendations to bring to the meeting.

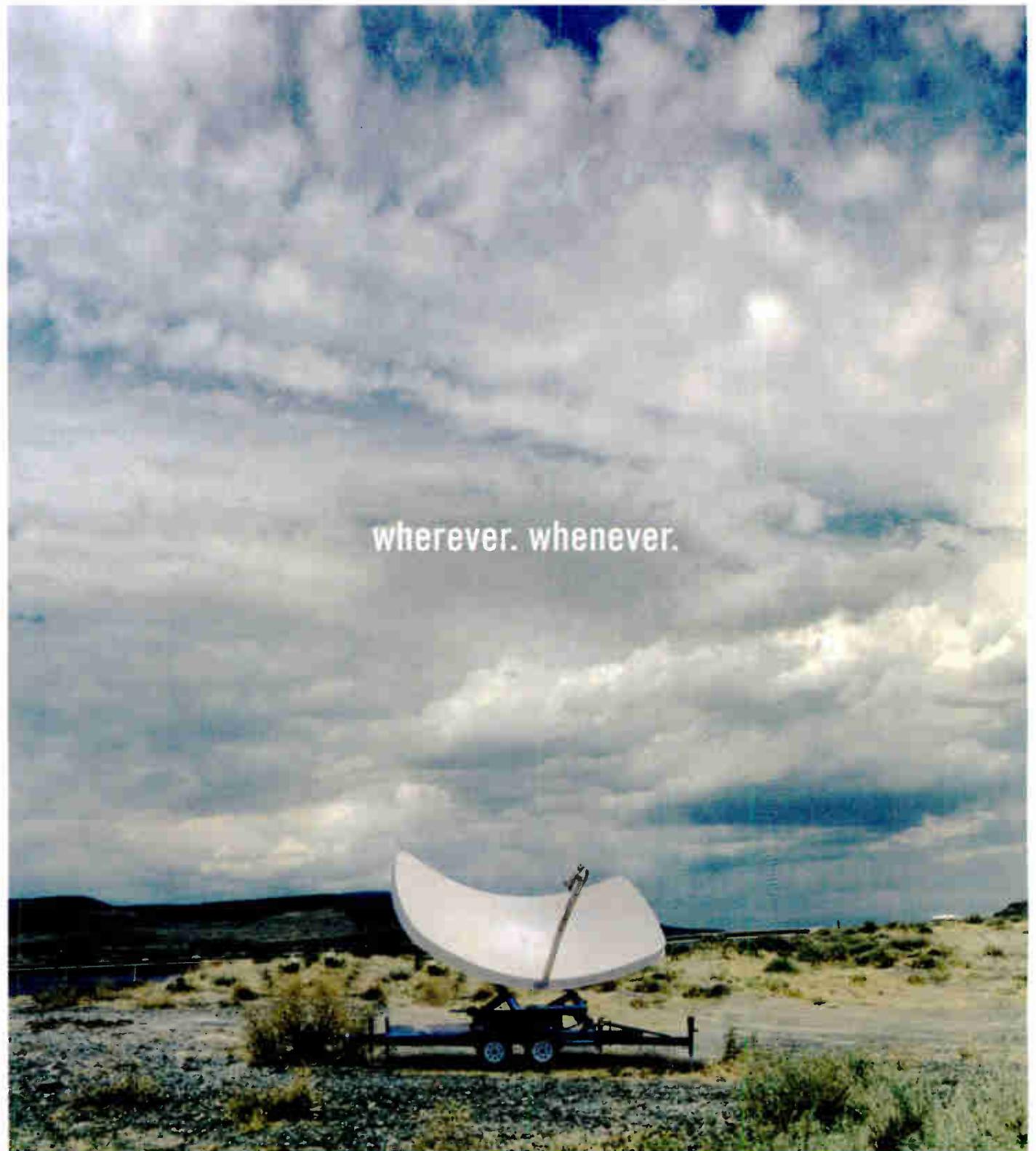
Some questions SBE expects to address:

- What are SBE's most important/least important functions?
- What services should the SBE provide? What services should the SBE discontinue?
- What role does/should SBE play in the broadcast industry?
- What can SBE do to increase the value of membership and certification?
- What is the skill set of the current broadcast engineer?
- What skills are needed but are lacking?
- What will the future broadcast engineer be like? What will the future broadcast engineer need to know?
- What can SBE do to increase awareness and interest in broadcast engineering?
- What can SBE do to attract more participation from members at the local and national levels?
- How can the SBE National Office better support and work with local chapters?

These questions are a sample of many expected for the meeting, but is by no means a comprehensive list. Before the meeting, the Strategic Planning Committee, National Board of Directors and Executive Committee will refine the questions to the most important issues and use the strategic planning meeting to gain answers and even recommend action steps.

A portion of the Executive Committee meeting the following day will be dedicated to addressing the most obvious results of the strategic planning session and assigning committee activities to further the goals set forward in the meeting. A complete, written report will be prepared by the facilitator and will be presented to the SBE Board at the fall National Meeting in Verona, N.Y. The full SBE Board of Directors will turn those results into actions.

The SBE National Office is encouraging every local SBE chapter to dedicate a meeting or initiate a membership discussion regarding the industry's future and SBE's role in it. Any broadcast engineer

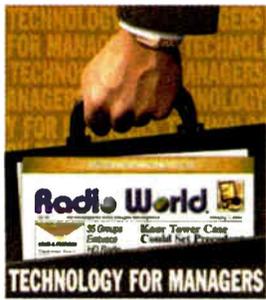


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How to Develop Your IT Skills

Keep Up With IP Audio, Mobile Media, Broadband Wireless, Data Networking

by Tom Vernon

The radio broadcasting infrastructure rapidly is transforming itself into an IT enterprise. IP audio is gaining momentum for studio operations and remote broadcasts. TCP/IP has become the lingua franca for studio and transmitter interconnects. New distribution channels for content such as podcasting and mobile media are developing at a rapid pace.

Broadcast engineers face an enormous challenge keeping up with the changes in IT technology. We talked with several industry experts in search of success strategies for education and certification, and identified some sources of tech knowledge.

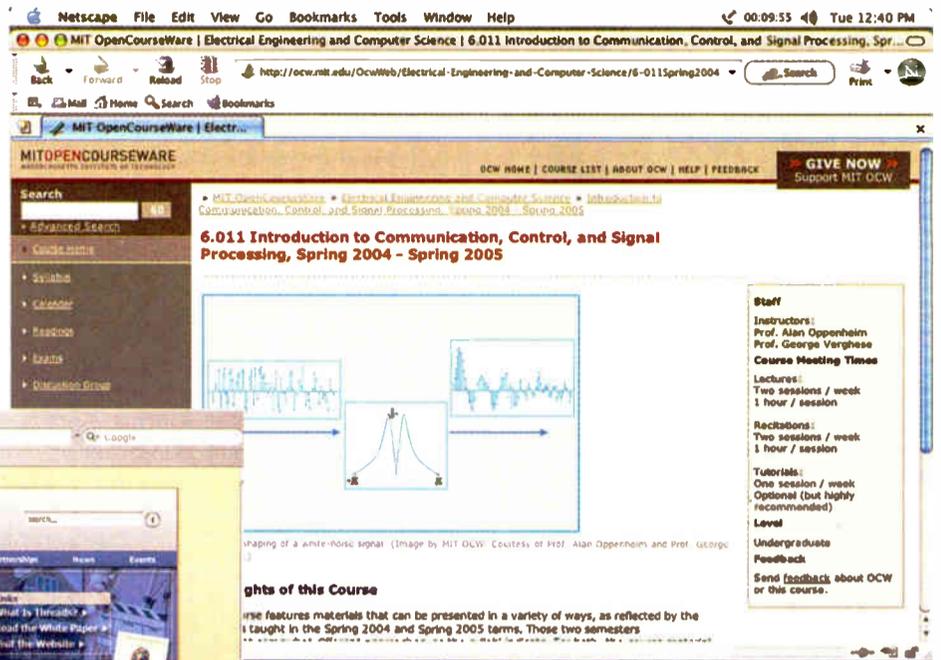
Jim Garnier, chair of the National Certification Committee of the SBE, said the organization does not recommend study strategies, but the society does offer a list of SBE-certified schools offering technical training in broadcast engineering or related topics. The programs have been reviewed and certified by the SBE National Certification Committee.

Terry Baun, an independent contractor and member of the SBE's

Certification Committee, said changes may be coming to the exam for the Certified Broadcast Networking Technologist classification. "The exam will remain a way to demonstrate an entry-level computer networking skill

set, but it may be revised to reflect changes in technology."

Baun said questions on topics such as coaxial networks, for example, could be



Online resources are rich. MIT's entire course catalog is available. Many course Web sites include lab exercises, readings, exams and lecture notes. At left: Georgia Tech College of Computing



replaced by more relevant subjects such as subnetting, IP addressing and backup systems.

E-smart

IP audio may push broadcasters to

develop new skills.

Kirk Harnack, U.S. director of sales for Telos/Omnia/Axia, says engineers learn by doing and working with the latest technologies. But, he said, a would-be

See IT SKILLS, page 31

Back to School, Without the Tuition

Mid-career professionals often don't have the luxury of going back to school to pick up an advanced degree. That doesn't mean they can't access graduate-level courses in IT, electronics or communications.

Some large universities are putting their course materials, including syllabi, lecture notes, reading lists and exams, on the Internet. While these are not part of a distance education or degree program, a wealth of valuable information is free for the download.

Here are the Web sites of three top universities and a sampling of the courses available.

MIT OpenCourseWare
Massachusetts Institute of Technology
ocw.mit.edu

Through its OpenCourseWare initiative, MIT says it is committed to placing its entire undergraduate and graduate catalog of courses online.

- From the Electrical Engineering and Computer Science Department:
- 6.002 Circuits and Electronics
 - 6.101 Introductory Analog Electronics Laboratory
 - 6.111 Introductory Digital Systems Laboratory
 - 6.170 Laboratory in Software Engineering
 - 6.930 Management in Engineering

And from the Media Arts and Sciences department:

- MAS 863 How to Make (Almost) Anything

School of Information Management Systems
Univ. of California, Berkeley
www.sims.berkeley.edu

Information science, the school says, is becoming an important topic in understanding how different media work on the Web and wireless environments. Some course materials must be accessed by searching faculty Web pages. Samples:

- SIMS 250 Computer-Based Communications Systems and Networks
- SIMS 247 Information Visualization and Presentation
- SIMS 290 Effective Project Management
- INFOSYS 290 Mixing and Remixing Information

College of Computing
Georgia Tech
www-static.cc.gatech.edu

Georgia Tech says it has one of the largest computer science programs in the country. Samples:

- CS6725 Information Security Strategies and Policies
- CS7260 Internet Architecture and Protocols
- CS4255 Principles of Network Management
- CS4235 Introduction to Information Security

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IT Skills

► Continued from page 30
student needs to take further steps.

"Most important is demonstrating basic IT skills by passing the SBE's CBNT certification exam. An additional step would be to get A+ Certification, which is more generic in scope than CBNT."

He says engineers must be self-directed learners. Worthwhile reads, he said, include the book "A+ Certification for Dummies" and his company's white paper "Introduction to Livewire," available on the download section of www.axiaudio.com.

An important skill for those doing IP audio installations is how to separate networks physically, yet still allow them to talk to one another. Doing so requires knowledge of subnets, LANS and VLANS, topics worth additional study.

An important skill for IP audio installations is how to separate two networks physically, yet still have them talk to one another. Doing so requires a knowledge of subnets, LANS and VLANS.

A wealth of webinars, lectures and other educational materials on technical topics is available at www.techonline.com. Areas include RF basics, broadband wireless access and data networking hardware. Course materials are free, although users must register with Techonline. Because the materials largely are sponsored by component manufacturers and equipment vendors, users can expect occasional commercials and promotions.

Some universities are putting computer and IT course materials online (see sidebar).

Mathematics is the cornerstone of electronics and computer science. For many engineers, closing knowledge gaps or getting refresher material in math is necessary before tackling advanced topics.

ALEKS is a full-time automated math tutor on the Web, which includes explanations, practice and feedback. Topics range from basic math to algebra, trigonometry and pre-calculus. The cost is \$17.95 per month for unlimited use. More information is available at www.aleks.com.

Keep it moving

Mobile media is developing at a blistering pace, and some radio groups are

involved. Success in both content production and engineering may involve acquiring skills outside the traditional IT box.

For engineers, an understanding of mobile operating systems such as Symbian, J2ME, Windows Mobile and Palm OS would be useful, as well as a knowledge of WAP, the Wireless Applications Protocol and SMS, the Short Message Service.

Mobile applications development is evolving faster than textbooks can be written. One way to obtain in-depth information is by spending time on the carriers' developer Web pages, such as www.sprint.com/business/developer_program.html.

Flash-enabled mobile devices are becoming more common in the United States. Engineers looking to expand their

skill sets may wish to learn how to develop interactive media and promotional materials in FlashLite, the mobile version of the application.

Users seeking to come up to speed with Flash or to receive training on Adobe/Macromedia's other Web development products such as Dreamweaver or Cold Fusion can take a number of courses from authorized training centers nationwide. Certification exams are also given on Flash and some other applications. See www.macromedia.com/support/training.

Some companies present classroom instruction on their products, enabling users to come up to speed quickly. For instance, Digidesign offers a certification program and a series of classes on its popular audio editing program Pro Tools. Information is available at

www.digidesign.com:

Broadcast engineering is becoming a profession in which continuous education is necessary to stay in the game. Given the diversity of media technologies and job descriptions, no one education path works for all. An engineer must take the initiative in developing and following through on a personal learning strategy.

A treasure trove of knowledge is out there, but you may have to do some detective work to find all the pieces and stitch them into a cohesive plan.

Tell us about your recommended education resources. Write to radioworld@imaspub.com.

Tom Vernon is a frequent contributor to Radio World. He wrote about the spread of datacasting services in the Feb. 1 issue.



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Digital Media's Global Warming

The Frequency of Disruptive Events in Media Seems to Be Increasing. Anomaly or Trend?

by Skip Pizzi

Hardly a week passes lately without some emerging digital media business announcing that it will take the marketplace by storm.

New services proliferate at a frightening pace, but like the wind, these are often nothing more than the same hot air being blown in a different direction. A lot of what passes for progress in the digital

Think back to the 1990s, when the flat-rate local service that telcos had worked hard to provide — based on an assumption that most local calls would be of short duration — was leveraged by consumers for very cost-effective dial-up Internet access. All the statistical models the telcos had used to predict their switching center requirements and profit margins were blown out of the water by so many customers making unmetered

metered service again.

But just when the telcos thought they had adequately shored up the levees, along came Hurricane VoIP and they were back under water even deeper than before.

Now the telcos are asking the Feds to declare another state of emergency in their area so they can try IPTV. Will they get the help they need in time? And will the next storm season treat them any more gently?

Meanwhile, the same winds have blown more favorably onto cable TV's shores, where the old TV retransmission paradigm was enhanced by access to exclusive content, more efficient digital delivery and PPV/VOD/DVR, alternative telephone service, HD channels and high-speed Internet access. Now this so-called "triple play" (TV/voice/data) has brought sunny skies to the land of coax — but will clouds eventually darken the horizon there, too? Will a revitalized telco industry steal back some business from cable?

The Big Picture

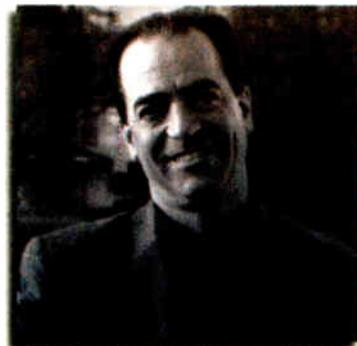


Photo: Gary Hayes, BBC

by Skip Pizzi

course, but terrestrial radio could harden its targets with increased local content and reduced commercial loads in the meantime.

Internet radio and other emerging online media platforms are developing depressions on the map that bear watching, but these are items that broadcast radio can do something about by launching their own competitive services in the space. A little investment in tropical cloud-seeding today may pay strong divi-

Everyone talks about telecom reform, but no one seems to do much about it.

media world doesn't really offer consumers any new services, but simply changes which entity provides them — and for how much.

In this respect, telephone companies have been the Gulf Coast poster children of digital media, suffering one storm's landfall after another recently.

local calls to their ISPs and staying online all day.

So the telcos patched their roofs and opened some ISP storefronts themselves, which worked well for a season or two. Then they got some government assistance and moved to the long-distance enterprise zone, where they could sell

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And what of satellite TV? Will it continue to stay above it all, or will it experience its own rain fade from the IPTV squall?

As with any economic development, a lot will depend on what happens in DC. So far, everyone talks about telecom reform there, but no one seems to do much about it.

Your local forecast

The broadcast industry has not been immune from heavy weather, either.

Commercial television is riding out Typhoon TiVo, which is challenging the broadcast business model of time-based viewing and the interstitial advertisement. TV broadcasters will have to build new shelters that provide reliable revenue streams impervious from the time (and place) shifting that the new digital climate has brought to their latitudes.

Radio has its own challenges, of course, mostly from new competition. The satellite radio gale continues to build offshore, but will it reach Category 5? And will satellite radio's subscription-based, national-service model keep it from ever making a direct hit on terrestrial radio's coastline, such that even with increasing intensity it won't inflict serious damage? Those upper-level steering currents are hard to accurately predict, of

dends later. The handheld and mobile phone device market seems to be heading over the warmest water right now, so broadcasters should keep close track on its path. It could turn into a real tempest, or it might just blow over. It could also spawn some tornados that inflict heavy damage in limited areas while leaving other zones untouched.

Well, I've probably pushed this metaphor far further than good taste or proper meteorological practice would allow, so you have my apologies. Let's leave it at this: In a media world where disruption seems to have become the norm, terrestrial radio looks like it might prove to be a pretty safe harbor after all. But I'd still keep plenty of duct tape and plywood on hand.

Skip Pizzi is contributing editor of *Radio World*. His "Big Picture" columns are archived at www.rwonline.com.

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Radio World

Resource for Business, Programming & Sales

May 24, 2006

Bloomington's WJBC: Life Begins at 80

by Ken R.

In May 1925 the stock market was rising to unheard-of heights. You could buy a Ford Runabout for \$265 on the weekly purchase plan (demountable rims and starter \$85 extra).

And 1925 was the year Lee Stremmler launched WJBC(AM) from Hummer's Furniture Store in LaSalle, Ill. The call letters stood for "Where Jazz Becomes Classic."

Nine years later, during the depths of the Depression, the enterprise moved to Bloomington and became that market's first radio station. WJBC was only on the air a few hours a day at first, but it featured eight daily newscasts, weather twice a day and Western Union time at the top of each hour.

In 2005, WJBC won the NAB Marconi Radio "Small Market Station of the Year" award, not just for its 81-year history, but for what it is doing today.

Sometimes more is more

Station Manager Janae Jontry said a focus on localism differentiates WJBC from most of the competition. Part of a five-station cluster owned by Regent Communications, WJBC is the only AM of the group and has five full-time news people and an agribusiness director.

"We use our AM news product on our FM stations with the 'WJBC newsroom brand,'" said Jontry. "National and local news stories are updated frequently on our Web site, and we offer sports and other program highlights as podcasts."

Webmaster Matt Swaney recently re-launched www.wjbc.com, which is designed to mirror the station in local content. The site archives many high-school play-by-play games broadcast over the station's secondary Internet stream, www.wjbc2.com.

"On a busy sports night we can air



President Franklin Delano Roosevelt speaks in Bloomington in 1936 while campaigning with First Lady Eleanor, and WJBC was there.



Man in the street interview, Biasi's Drug Store, 1936

one game on WJBC and one on our second stream," said Jontry. "We also stream city council meetings."

The station's online business model is still a work in progress, but one strictly Web-based revenue source is the Central Illinois Wedding Planner, a directory for wedding service providers. WJBC also markets broadcasts of local sporting events on CD through the Web site. A plastic surgeon has an "Ask the Doctor" feature online that he sponsors.

Late morning host/program director R.C. McBride is the driving force behind the Web site.

"My general manager, Red Pitcher, is very supportive of new technology," said McBride. "Radio has to embrace it. Instead of just running news at the top of the hour, we have to figure out how people want to use our product and tailor it to them."

McBride is "hands-on" with respect to repurposing programming for the Internet.

See WJBC, page 34 ▶



After winning the Marconi in 2005. Front, from left: Jayme Monacelli, R.C. McBride, Red Pitcher, Janae Jontry, Beth Whisman. Back: Colleen Reynolds, Steve Brienen, Eric Stock, Todd Wineburner, Scott Laughlin, Jim Williams, Greg Halbleib, Carrie Muehling, Steve Fast

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WJBC

► Continued from page 33

"It's up to each host and producer to come up with a highlight every day, usually an interview," he said. "Using WebReady software from a company called Wireready, it is a three-minute process to get our content updated online. The same company offers another package called PodcastReady."

In the Midwest, weather conditions can change quickly. McBride and his Webmaster have set up a system whereby listeners can get instant alerts sent to their mobile phone, pager or e-mail account.

"Radio can do a much better job than TV with severe weather," he said. "With

TV trying to cover so many counties, it can't justify breaking into programming if just one or two counties have an emergency. We get on the air immediately if we need to, and people can take a portable radio down into their basements during tornado warnings. You can't do that with a TV."

Ratings, revenue and retention

WJBC has ratings any station would envy. In the fall 2005 Arbitron 12+ category, WJBC had a 15.9 share in the morning. Country-formatted WBWN (FM) had a 14.8 and hot adult contemporary WBNQ(FM) had a 12.1. All are owned by Regent Communications. The nearest competition, cross-town WIHN (FM), had a 4.2 in the same daypart.

But ratings in medium markets don't automatically translate into dollars.



A one-day fundraiser on Sept. 12, 2001, grew into a four-day marathon that raised more than \$870,000. One visitor, an employee of a fast food restaurant, signed over his entire paycheck. Station staff and volunteers from area universities and the American Red Cross gather for a photo at Schnuck's grocery store parking lot at the conclusion.

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"Fluidity in national and regional sales is our biggest challenge on all of our stations," said Vice President/General Manager Red Pitcher. "Local advertising represents 65 percent of our income and that's steady, but the national business has ups and downs with no rhyme or reason."

Programming also presents its challenges.

"Someone may say something on the air that not everyone agrees with," said Pitcher. "But as long as you let the listeners have access, you keep your credibility. You're never going to escape controversy, but we never use our station as a pulpit."

Instead of just running news at the top of the hour, we have to figure out how people want to use our product and tailor it to them.

— R.C. McBride

One of the biggest issues for stations large and small is keeping good people.

"It's more of a lifestyle issue," Pitcher said. "While this is a good white-collar town and we pay better than the standard in markets our size, a lot of people are trying to get out of some of the larger markets to come to a place where it doesn't cost as much to live and doesn't have as stressful a commute."

Pitcher recently won the "Broadcaster of the Year" award from the Illinois Broadcasters Association.

Power to the people

While many stations do everything to avoid being stuck with older demographics, WJBC welcomes everyone.

"The baby boomer audience should not be discounted," said Jontry. "The number of people and the disposable income they have make it an important demographic. We also get younger people involved through our community service."

For the last 36 years, WJBC has pre-See WJBC, page 35 ►





News Director Don Newberg, right, interviews Dr. Martin Luther King Jr. at Illinois Wesleyan University in 1961.

Years of Service

Engineer Ron Schott has been with the station since 1983, some 23 years.

Long service seems a hallmark at WJBC, where morning host Scott Laughlin and VP/GM Red Pitcher each has 20 years, morning co-host and news director Colleen Reynolds has 19 years, Manager Janae Jontry and Program Director R.C. McBride each has 13 years. Assistant PD/ND and afternoon co-host Beth Whisman has seven years at the station, and afternoon host Steve Fast has four.

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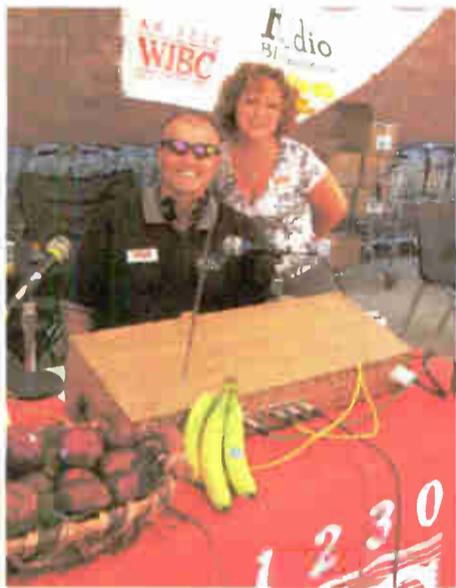
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Scott Laughlin and Colleen Reynolds of the morning show at a 2005 fundraiser for hurricane relief. WJBC and sister stations again collected donations in the Schnuck's lot, which one manager said has 'kind of become our home base for such things after 9-11.'

WJBC

► Continued from page 34

sented the "Brotherhood Tree," an event during which listeners are asked to leave an extra Christmas present under a tree at one of several locations. Station members collect, sort and wrap them at a local armory and then distribute the goodies to people who most need them.

"We get referrals from schools, social service agencies and write-in requests as to who needs what," said Jontry. "This year we distributed presents to almost 6,500 people. We all enjoy doing this together."

Another community outpouring occurred after Sept. 11, 2001. The station planned to raise at least \$5,000 for the Red Cross rescue effort; listeners came together with WJBC to raise \$870,000 in one week.

For a timeline and history of WJBC, including an audio archive and a discussion of experiments by engineers George Stephenson and Jack Jenkins with the "endless loop tape cartridge," visit www.wjbc.com.

Ken R. is a former broadcaster who writes for Radio World and other publications. Reach him at ken@kenr.com.

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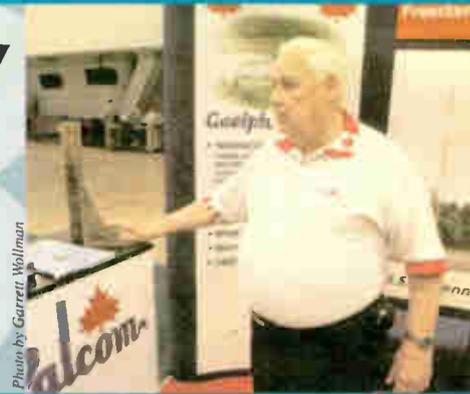
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Photo Gallery



▲ Richard Burden in the Valcom booth.



◀ Dick Purtan inspects his plaque upon induction into the NAB Broadcasting Hall of Fame.

More photos on page 46



▶ Tom Zarecki of RCS explains the company's new GSelector software to Dava Casapao of Denon/Marantz.

▶ The NAB Crystal Radio Awards recognize stations for year-round commitment to excellence in community service. Rear, from left: Thom McGinty, KUDL(FM); Chuck Tweedle, KZBR(FM); Jim Watkins, WHUR(FM); Dan Guin, WHAI(FM). Center: Barry James, WILV(FM); Kate Hayes, KOZT(FM); Lynn Larson, WJON(AM). Front: Chris Redgrave, KSL(AM); Jim Love, KLV(AM); Sylvia Cariker, KUZZ(FM).



▲ FCC Chairman Kevin Martin answers reporters' questions. Around 1,300 press credentials were issued at the show.

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Red, White & Blue Radio

There is one organization in this country that consistently needs broadcasters' help: The United States military.

Regardless of how you feel about the war in Iraq, we should all be united in the cause of caring about those who risk their lives for our country or are performing routine jobs that keep the logistical operations of our military strong.

The least we can do for our voluntary force is to help contribute to the creation of a positive attitude about serving America.

A radio salute

In general, country radio is the only format that has embraced the military. There is plenty of room for other formats to make a contribution. Public radio broadcasters also could do much more in supporting the troops.

Here are suggestions of ways your station(s) can make a connection.

✓ Memorial Day is upon us, but you can still make an immediate difference. It's not too late to get involved with The White House Commission on Remembrance.

The group was established by Congress as an independent government agency, its purpose to honor our fallen veterans and their families. The commission has produced vignettes with the help of McVay Media that can be aired through Memorial Day at 3 p.m., when a national moment of silence is requested via the airwaves.

This program has aired successfully for several years, but is still not heard in many markets. For details, visit www.remember.gov.

If you don't want to involve yourself with this organization, it's not difficult to produce your own pieces using the names of veterans from your city and thanking them.

✓ The USO is a worldwide non-profit group that provides recreation services to the military. If you only think of Bob Hope when you think USO, you're out of touch.

There are many ways you can get involved. You can begin simply by airing public service announcements for donations and announcements about its programs in your area. This has the benefit of showing the public that your station(s) cares about the troops, and it will directly benefit our men and women in service by reminding the public of their existence and need for a connection with the rest of society through engaging in social activities.

If you have a fundraiser coming up and you're searching for a charity, the USO likely has manpower that can be useful. You can rest assured that the money raised will be well spent for the troops. Details are at www.uso.org.

✓ If you'd like to do something that connects directly to injured troops returning to your community from Iraq, one of the many things you can do is contact "Homes for Our Troops."

This is relatively small grass-roots group that helps injured service men and women by raising donations of cash, building materials and labor to adapt an existing home or build a new home that is handicapped-accessible. The organization is accustomed to working with radio sta-

tions and happy to go over their success stories with you.

If you're not interested in actually building or renovating, don't let that stop you. They're also happy to simply be the beneficiary of a fund-raiser you arrange and they'll be pleased to show you how your donations are being used.

Find out more at www.homes-forourtroops.com.

✓ There is another small thing you can do. Develop a list of military personnel who listen to your radio station. You don't need a ton of names. This could be as simple as calling your local USO office, or creating an "enlistment"

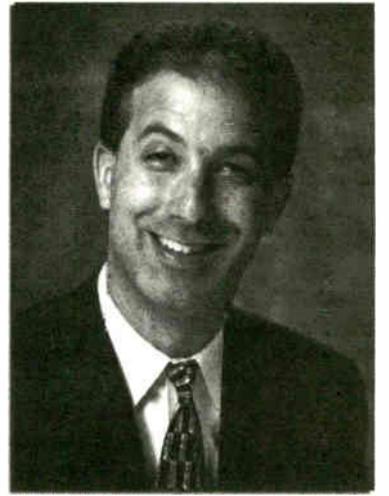
page on your Web site, where you encourage military personnel to sign up for extra listening benefits.

Every time you schedule a ticket giveaway, reserve a pair for a listener in the military. You can announce their name on the air, thanking them for their service to our country, or do the entire awarding process privately on the phone, or via e-mail.

As you look back on your radio career you should have a few things that you are proud to have been involved with where you made a difference. This could be something that resonates within you.

The author is president of Lapidus Media. E-mail to marklapidus@yahoo.com.

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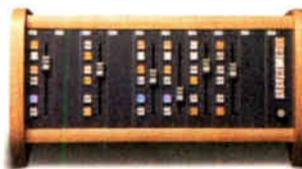
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by Gary Begin

"Make one point."
"Make it simply."
"Make it something worth listening to."

Sounds easy, doesn't it? Find out what people want and give it to them. A recipe for success!

Unfortunately, most radio stations are anything but simple. In my travels as a consultant, it's amazing the number of stations that make listeners jump through

hoops to listen. Too much "clutter" in stop sets; too many positioners.

Confusion for the listener is a recipe for disaster.

We need to start thinking of our listeners as "customers." The better we're able to understand how our listeners "consume" our product, the better we'll be able to market, package and produce a product acceptable to the marketplace.

In essence, programmers need to become "brand managers" of their radio stations.

We live in an over-communicated society. For a radio station to succeed in such a crowded environment, the station must create a position in the listener's mind.

Two types of customer

That position must take into account not only your station's own strengths and weaknesses, but those of the competition as well.

When we think of computers, most people think of IBM. But it didn't invent the computer; Sperry-Rand did. IBM was the first company to build a computer position in the mind of the consumer.



Gary Begin

Radio needs to do the same thing. Build a position in the listener's mind that you're a station with instant "top-of-mind" awareness.

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We live in an over-communicated society. For a radio station to succeed in such a crowded environment, the station must create a position in the listener's mind.

Radio has to "sell" its product to listeners on a daily basis. As the marketplace becomes even more fragmented with iPods, Internet radio, MP3s, CDs, satellite and now HD Radio, it's the "brand" that people remember, the thing that makes it comfortable for people to go out and buy or listen to.

The radio dial is filled with more choices than ever. Listeners are consuming our product on a daily basis. You'd better be able to stand out in this crowd.

The primary reason to create a great product is to create great revenue. The better the product serves and entertains the target listener, the better the opportunity to increase ratings and revenue.

Brand loyalty

Brand loyalty is the Holy Grail for all brand marketers. It's a lot of hard work to establish and maintain that relationship.

There is a reward, and it's given to radio stations that develop a successful consumer product relationship with the listener. As programmers, we need to connect with people and develop a

Brand

► Continued from page 38
sense of "satisfaction" the listener can embrace.

We need to know and understand listeners' beliefs, attitudes and perceptions of our station. We're supposed to be in the entertainment business, let's capture their imagination. *Be creative!*

Entertainment value

Most of the fun has gone out of the radio business. It's become too homogenized, formulated and computerized, not to mention centralized.

Radio needs to bring back the "art" and "fun" it once enjoyed. That all plays into building a brand.

- To create a brand we must create a unique brand identity communicating your benefits.
- Once the identity is established, we need to build awareness of that brand.
- Create "brand loyalty."

Brands live in a highly competitive world. A brand may stand apart, but rarely does it stand alone.

Your brand needs to push against commonality, driving a wedge between itself and your competitors. You must become a category of one.

Miller Brewing accomplished this by hitting on a unique brand concept: "Tastes Great, Less Filling." Miller Lite found a way to appeal to the rational and emotional sides of beer drinkers at the same time: only Miller Lite could claim to be lower in calories (rational) while offering the taste beer drinkers wanted (emotional).

Your radio station must accomplish the same thing.

Oversimplify

The most effective approach to take in this over-communicated society is the over-simplified message.

Less is more. We need to sharpen our message to cut through the clutter.

Jettison the ambiguities, simplify the message and then simplify even more. You'll make a long-lasting memorable impression.

Do you really think listeners believe we're playing "a better mix of music?" Better than what, my iPod?

Drop the things you can't brag about. Do what you do best, forget about the rest. Cut the *crap* and focus on making your strengths stronger.

Stop insulting your listener with meaningless phrases they don't believe. Relate to your audience. Find out what your strengths are and master them.

Doing so builds a solid reputation and a following. Become known for great work in some area rather than good work in a lot of areas.

You look marvelous

It's important to come up with a signature style.

Producer Phil Spector was sought out in the 1960s by the Beatles and Rolling Stones for his unique "Wall of Sound." His track record included producing such hits as "Be My Baby" and "You've Lost That Lovin' Feeling," by creating a dense, complex, "everything-and-the-kitchen-sink" type of sound.

He mastered what he did and people

wanted to work with him.

Come up with a strong theme. Do your best to be entertaining, thought-provoking and memorable. Develop bits that the audience will enjoy and remember.

This will become your *signature*, one that others in your market will not be able to copy.

Listeners don't know what they like, but like what they know. Brand yourself in a way the audience can relate and embrace, and that recipe for disaster will soon be the ingredients for success.

Gary Begin wrote here in September about "how to marry your listeners." He is a consultant with 26 years of experience in managing, programming and consulting, and is a partner with Steve Bianchi in Identity Programming. Reach him at gbegin@identityprogramming.com.

The Ultimate Sports Wedding'

Marriage was the theme in a contest run by ESPN Radio's Mike Golic and Mike Greenberg, hosts of "Mike & Mike in the Morning," who were looking for "the couple with the most love and passion for sports."

Listener voting and a selection committee narrowed a field of 500 registrants through a "Sweetheart 16," "Engaged Eight" and "Fabulous Four."

The winners were Jason West and Catherine Bennet of Juniper, Fla., crowned during a live broadcast from ESPN Zone



in Times Square. West and Bennet won an "Ultimate Sports Wedding" to be held May 26 at ESPN.

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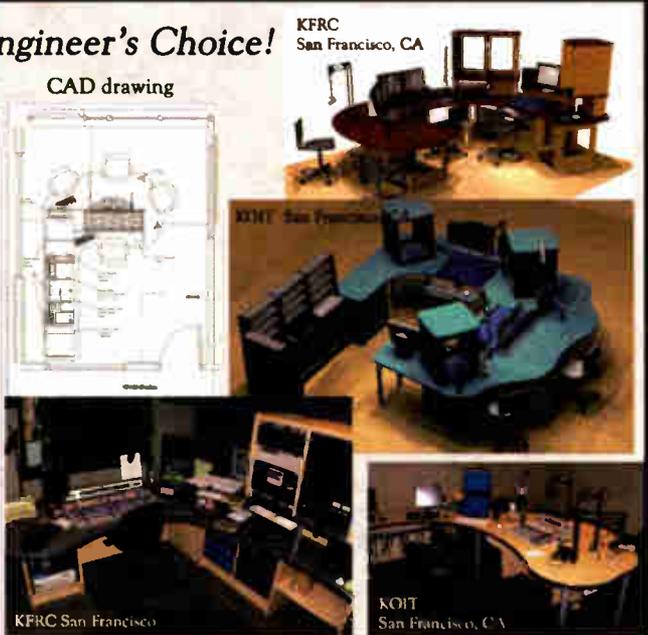
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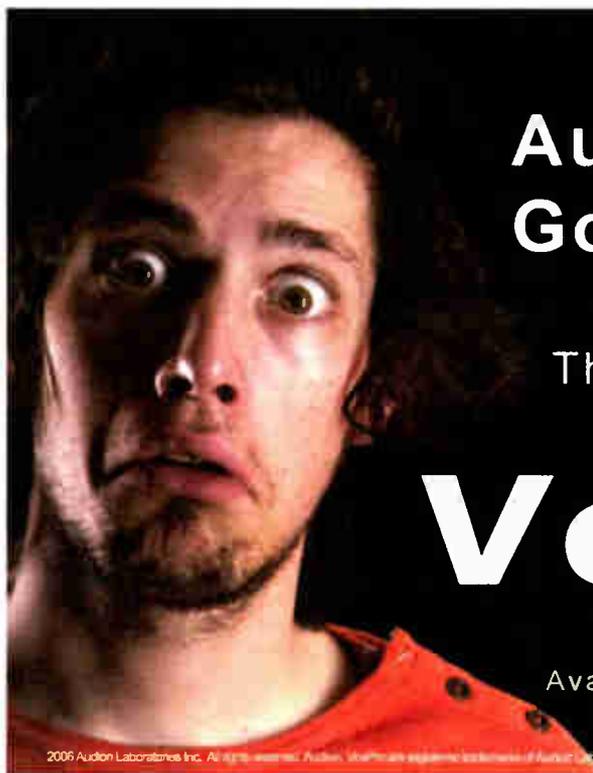
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Playboy Radio? Sirius Dates the Bunny

by James Careless

Playboy on radio. At first blush, the concept seems, well, silly. After all, Playboy's fortune was built on the pictures of its busty centerfolds, not the sound of its magazine pages flipping. This is why Playboy TV makes sense; but Playboy Radio? How will that work?

Very well, if Farrell Hirsch has his way. A man with roots with radio and Broadway, Hirsch is Playboy's producer of satellite radio; in plain English, he's in charge of the bunny's new 24/7 station on Sirius Channel 198, which launched on Sirius in March.

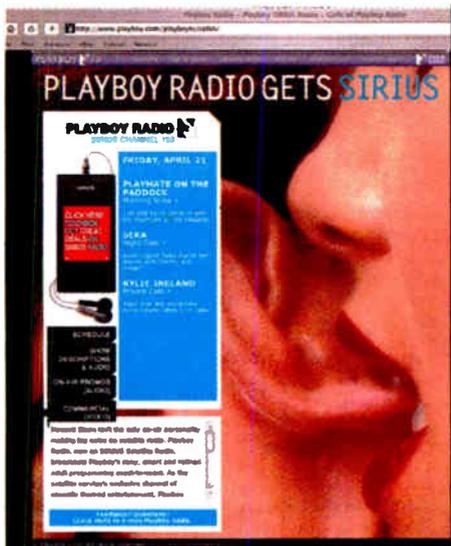
"We've heard skepticism about the 'lack of pictures' on Playboy Radio in many places, including Jay Leno's monologue," Hirsch said. "However, once people hear what we doing, they understand that Playboy Radio has what it takes."

Playboy Radio 101

It's not the first run for Playboy Radio. The concept originally launched as an extra-charge service on XM Satellite in September of 2002.

"Playboy chose XM at the time, but when that contract expired there was a bidding war for Playboy Radio," Hirsch said. "Not so much a war of money, but of ideas and goals. Sirius offered the chance to expand the quality and quantity of programming."

XM discontinued the channel last fall after three years. On Sirius, the program is a free opt-in feature, available to subscribers without a premium charge.



Playboy's online marketing of the Sirius channel.

In a conference call with business analysts in February, Scott Greenstein, president of entertainment and sports for Sirius, positioned the Playboy content as part of the company's wider efforts to strengthen its programming platform.

"In 2006 alone NASCAR will be getting ready for launch in less than a year from now. Blue-Collar Comedy will launch during this year, Playboy Radio will launch and numerous other programming and channels are underway and it will be exciting to go from there."

Playboy Radio is produced in Los Angeles, where "we have studios, we have talent and we have staff," said producer Hirsch. "After all, we're a radio station."

Hirsch works for Playboy under the same executives who are responsible for Playboy TV, Playboy.com and other properties. "Playboy Radio is *not* a farmed-out venture that Playboy slaps its name on," he stated. "It's made by Playboy personnel at Playboy Studios."

As a 24/7 source, Playboy Radio has a daily schedule of programming blocks, each tailored to its time period and target audience. That audience is "the same male audience that's been served by Playboy magazine for years," he said.



Tiffany Granath hosts an afternoon advice show featuring a panel of sex experts.

Thematically, Playboy Radio is meant to be a step above Howard Stern.

"I listen to Howard and think he's brilliant, but he approaches sex like a teenaged boy," Hirsch said. "In contrast, Playboy Radio is a primer on how to be comfortable and enjoy yourself with a woman, and what you need to know and do to impress a woman who's the caliber of a Playmate."

Cort and Kevin

Like any radio station, Playboy Radio's most important time slot is the morning drive. This is why the slot is occupied by the "Playboy Morning Show," heard live from 4 to 7 a.m. Eastern, and repeated from 7-10 a.m.

According to www.playboyradio.com, "Every morning, hosts Cort McCown and Kevin Klein create an audio version of Playboy magazine, integrating many of the publication's famous features, like the Playboy Advisor, and bringing the Playboy lifestyle to the radio."

In addition to "contributions from Playmates and Bridget from the hit TV series 'The Girls Next Door,'" the morning show has Hugh Hefner doing an audio version of his print column, "Ask Hef Anything."

"Hef answers his questions from the Mansion; after all, that's the center of the Playboy universe," said Hirsch.

From 10 to 11 a.m., it's "The Playmate Hour," when, according to the company's marketing, "Playmates Pilar Lastra (August 2004) and Jillian Grace (March 2005) host this daily slumber party, featuring in-depth interviews and special features with other gorgeous Playmates. This will also be the source for Playmate

See PLAYBOY, page 42 ▶

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GUEST COMMENTARY

The Now of Messagecasting

Datacasting Evolves Into the Next Phase

by Paul Jackson

The author is marketing editor of Broadcast Electronics.

We hear a lot about the future of technologies like datacasting. With the advantage of being able to see what's happening behind the scenes with developers of datacasting software, I can assure you that the future is bright. What should be even more reassuring is that the *now* is quite bright as well.

Datacasting is simply the broadcasting of data. All sorts of information can be datacast. Simple Artist and Title information is just the beginning. This is how most stations start datacasting, but there's software out there right now that expands the capabilities of datacasting to include so much more.

The ability to incorporate promotional messages, sales messages and programming messages is transforming "datacasting" from a simple way to send data embedded in automation files into a tool that will add a new dimension to how we do business. Datacasting has in fact already evolved into the next phase of messagecasting.

PAD, Near-PAD and Non-PAD

While there is a system available that will handle live CDs remarkably well, most messagecasting efforts focus on integrating with digital automation systems. Digital automation systems take a lot of the work out of messagecasting, because so much information can be stored with a digital file. In fact, practically all automation systems store information with each cut of audio.

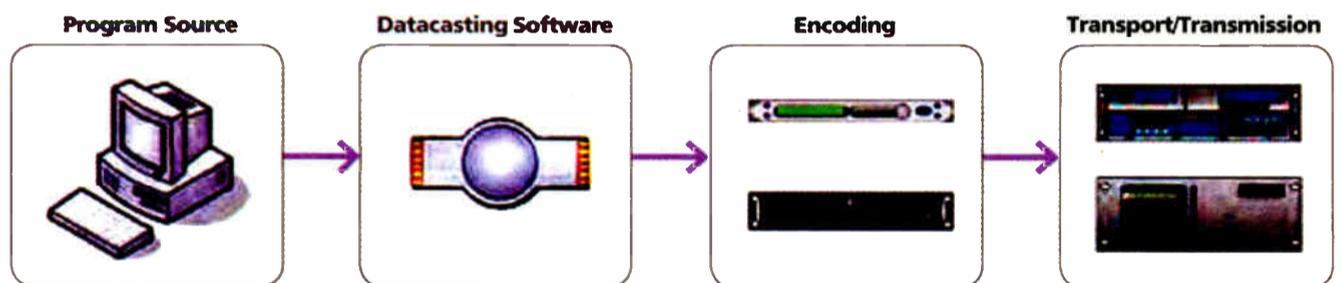
Remember carts? Every cart has at least one slightly greasy file folder label attached to it that describes what's on the cart, the artist/voice talent, information

about start and end dates, and any other information the production department thinks is important.

It's not surprising that this convention of storing data with each cut followed over to the digital automation systems that replaced most of our cart machines.

Instead of a file-folder label, each digital cut has a virtual label: information that is stored digitally, but the same information as was stuck on a cart. Since this data is specifically related to the audio on the cart, or the program, this is the data we refer to

Transport/Transmission



as PAD, or program associated data.

Other data that can be sent to your listeners are near-PAD. In the studio of most stations are note cards with concert dates, ticket information, facts about a particular band or song, or possibly a contest to win the CD, song download or concert tickets. Messages directly related to the cut on the air are called near-PAD. These messages are usually not stored in the automation system with the cut, but in a separate database managed by your messagecasting software.

Even more exciting is non-PAD. Next to the jock notes related to particular songs is another set of liner cards. These cards have messages like sports scores, stock tickers, weather information and

Then comes the "Cyber Girl Dating Show" from 9 to 11 p.m. "We've changed the concept of the late-night dating show," Hirsch said. "It's still hosted by Playmate Miriam Gonzalez but it's now more of a game/quiz show with the tentative title, 'The Playboy Dating Test.'"

Last is the "Best of Playboy TV" from 11 p.m. to 1 a.m. Throw in a repeat of "Night Calls" and the next broadcast day begins.

Subscribers can "opt-in" for the channel via phone or the Internet, or can choose to block the channel through the parental control system.

Playboy was among several recent programming moves that also included the addition of the Martha Stewart Living Radio channel; a talk show hosted by author Candace Bushnell; Cosmo Radio; the reinstatement of Fox News and the addition of Fox News Talk; and the launch of Blue Collar Comedy.

Going away are these channels: Mexicana; EWTN Hispanic; Sirius Advice; and Sirius Right. A spokeswoman said most of the Advice and Right channel shows are shifting or already have to other channels. She cited lack of demand for the programs of EWTN Hispanic and Mexicana.

traffic updates. More importantly, they can include station promotional messages like liners and promos. Since the messages are not directly related to programming on the air, we call this non-PAD.

Like Near-PAD, these messages are not usually stored in the automation system with the cut, but in a separate database managed by your messagecasting software.

Of course, near- and non-PAD have commercial applications as well. All the adjacencies, tags and sponsorships we've done for years on the air can be messagecast. We've managed this data in our ana-

log world for years, storing data on file-folder labels and notecards, and delivering it during segues and coming in and out of breaks. These opportunities to talk about our station and communicate valuable information have been limited to times when the jock can open the mic.

With messagecasting, we manage the same information digitally, but we have the opportunity to share it with our listeners all the time.

Getting the message across

Most automation systems can export PAD, so all that is left is picking messagecasting software to read that program associated data, integrate your near- and non-PAD messaging content, format it for your HD Radio or RDS gear, and then inject the formatted data stream into the air chain.

You'll need some key components to start messagecasting:

Program Source

First, you'll need a program source. LiveCD from Broadcast Electronics allows you to generate PAD from CD players using Internet lookups, but generally when we talk about a program source we're talking about a digital automation system.

There are three basic methods digital automation systems use to output now playing information: Serial, using a COM port, TCP/IP, using an Ethernet connection, and with a file that is updated by the software with each new event. Each automation system is a little bit different, so check with the manufacturer to determine your system's specific capabilities.

The second basic component you will need is messagecasting software like TRE Message Manager from Broadcast Electronics.

Datacasting Software

With some tweaking, your automation system may be able to export a string directly to your RDS encoder, but that leaves the door wide open for your competitors to get the jump on you when it

comes to taking advantage of the true potential of messagecasting with the integration of near-PAD and non-PAD. Opting for messagecasting software also positions you to take advantage of the capabilities of HD Radio technology. (See Fig. 1.)

Good messagecasting software will be able to accept incoming PAD from your automation system, manage near- and non-PAD and format the data for encoding. RDS requires an RDS encoder like the RDi 20 from Broadcast Electronics.

Encoding

RDS encoders take the output from your messagecasting software by means of a serial or IP connection (depending on the encoder) and send the encoded data stream to your exciter by means of a

Fig. 1

BNC connection. They also insert into the encoded stream other bits of data defined by the RBDS standard, including your call letters and station format.

There is also an encoding process for HD Radio implementation, but it is handled by computers using software components released by iBiquity. HD Radio encoded data streams are passed along to your exciter using a TCP/IP Ethernet connection.

Finally, you'll need equipment capable of managing the transport and transmission of the encoded data.

Transport/Transmission

For RDS, the encoded data is an analog/serial stream and can be transported from studio to transmitter using STLs with data transport capability. For HD Radio, the STL must have IP transport capability (like Big Pipe from Broadcast Electronics) if the data is encoded at the studio site. Alternately, the pre-encoded data can be sent to the transmitter site as a serial stream, and encoded for HD Radio at the transmitter site.

Messagecasting and promotion

Probably one of the biggest areas where current technology can be exploited is with station promotions.

Artist and Title information is interesting and may have some value to the listener, but displaying simple Artist/ Title information for three minutes straight as a song plays isn't the optimal use of the technology.

How about rotating Artist/Title PAD with near- and non-PAD messages promoting the station in general, pushing upcoming contests or cross-promoting other dayparts? It's an approach called

See MESSAGECAST, page 44 ▶

Playboy

▶ Continued from page 41

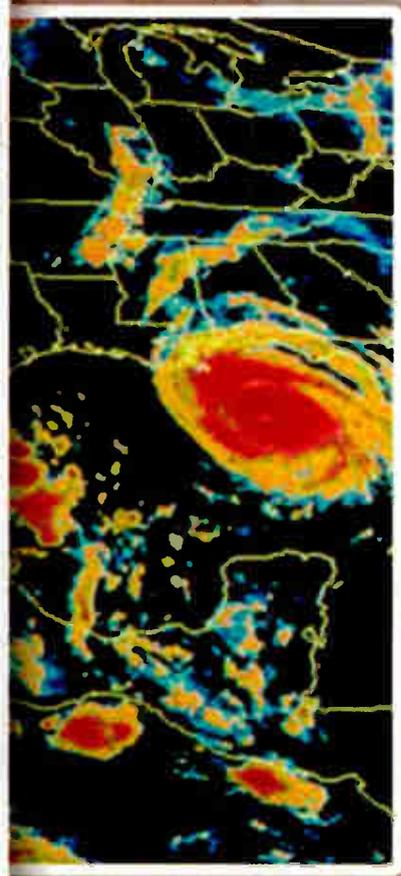
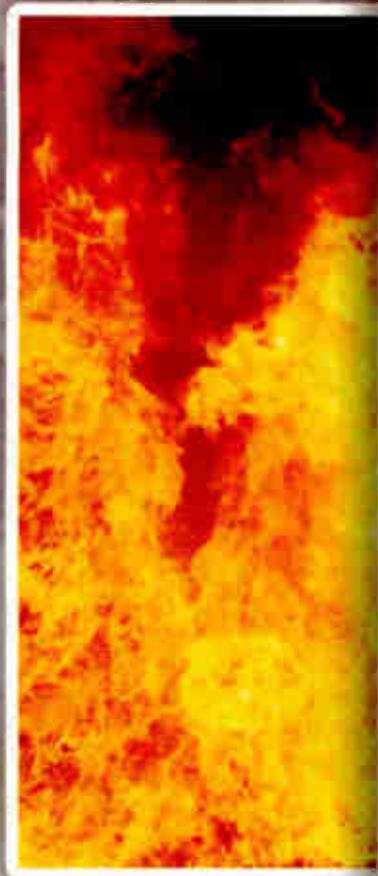
News, giving everyone up-to-date info on their favorite centerfolds."

"This is a PG-13 type of slumber party," said Hirsch. "It's not about the sleazier side of sex." Are Playmates chosen for their visual attributes up to this radio job? "Just because a woman is stunningly beautiful doesn't mean she can't do radio," he says. "Many of our Playmates are as smart as they are good-looking."

From 11 a.m. to 2 p.m., Playboy TV's Tiffany Granath hosts "Afternoon Advice," where "a rotating panel of sex experts takes your calls and may just take you in a direction you never considered."

Next, it's time for two hours of "Sexy Stories," then '80s-era porn stars Christy Canyon and Ginger Lynn host the call-in show "Night Calls" from 4 to 7 p.m.

The broadcast day is rounded out with "Private Calls" from 7 to 9 p.m.: "A call-in program featuring a different amorous adult star each night of the week, 'Private Calls' promises to create intimate moments that will leave listeners satisfied," the company brags.



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To Engage and Enrich, Digitally

Northeast Indiana Public Radio Uses Multicast to Extend Its Footprint

by Jeff Borden

Already adept at programming and promoting two formats, Northeast Indiana Public Radio had a leg up when the digital revolution arrived.

Today, the community broadcaster is airing three formats — news, classical and jazz, which airs solely on a digital channel. It is multicasting HD2 and HD3 on one of its main frequencies and is reveling in the chance to increase its audience and influence in Indiana's second-largest city.

Fort Wayne is one of a half-dozen markets nationwide where public radio outlets are airing three distinct digital formats, according to technology executives at National Public Radio.

"On the commercial side, the emphasis on digital radio has been on revenue," General Manager Bruce Haines said. "On the public radio side, it's more about public service. To be able to say to a station that you can add a signal, it's like getting a free kitten. We've all been given this gift of technology."

Like many public broadcasters in smaller markets — the population of metropolitan Fort Wayne is just over 500,000 — Northeast Indiana Public Radio Inc., with an annual operating budget of about \$1.2 million, often has tried to be all things to all people. NIPR's mission statement is "to engage our community with content that enriches the human experience." But the broadcaster also has a storied history of finding unusual and creative ways to serve its marketplace, even teaming with a local heating and air conditioning company to help bring another frequency to Fort Wayne.

NIPR holds the operating licenses for two stations; WBOI on 89.1 MHz airs NPR news and public affairs programming and is licensed to Fort Wayne, while WBNI at 91.3 offers classical music and is licensed to Orland, Ind. The latter has a translator airing on 88.7 in Fort Wayne.

The programming is shared with WBKE at 89.5, a station operated by Manchester College in North Manchester, Ind.

WBOI is the station with the strongest signal. It has gone HD Radio and now broadcasts all three formats.

Aspirations

The fate of public radio in Fort Wayne was very much in doubt as recently as 25 years ago, when WBNI was owned and operated by Indiana-Purdue University Fort Wayne. In the early 1980s, the school seriously considered closing down the radio operation to save money. A group of community-minded listeners, many from the local business and arts community, negotiated with the school and won the operating license for 88.7 MHz. It became a community licensee in March 1982, offering a diverse mix of programming including shows from National Public Radio. Unpaid volunteers hosted shows devoted to classical music and jazz, and they still do.

Haines arrived in 1987, fresh from a gig at a commercial country station in Muncie, Ind.

"When I arrived, I heard a lot of aspira-

tional language: 'If only we could have two stations.' We had the programming. We were paying for things we weren't using. But there were no more chunks of 50,000-watt audio space available in Fort Wayne," he said.



Northeast Indiana Public Radio General Manager Bruce Haines, top, discusses multicast services with NPR President/CEO Kevin Klose.

The station devotes a page to discussion of HD Radio at www.nipr.fm/HD_Radio.htm: 'With an HD Radio receiver, you'll hear near CD-quality sound, and THREE audio program services at the same dial position — WBOI, WBNI and a new 24-hour jazz service!'

But there were translator signals in the market, though they couldn't originate programming. And in tiny Orland, about 40 miles north near the border of Indiana and Michigan, there was a frequency available — all of 2,000 watts broadcasting from a 300-foot tower.

In 2002, the station worked with a local heating and air conditioning company that was looking for a way to expand its two-way radio coverage. The public broadcaster helped the firm invest in equipment that expanded the company's bandwidth in exchange for access to a microwave signal, which would carry programming from Fort Wayne to Orland, where it aired on WBNI. The signal from Orland, in turn, was retransmitted to the translator at 88.7 FM in Fort Wayne to make it easier for local residents to receive the signal.

"We had to go out of town to come back in again," Haines joked.

When digital radio became a possibility, Haines said, the thinking quickly turned to using WBOI as the platform for the new technology on 89.1. It would allow the classical music from WBNI to be simulcast on the HD2 channel while having enough bandwidth left to offer a jazz outlet on HD3.

Northeast Indiana Public Radio successfully applied for a Corporation for Public Broadcasting grant, which covered much of the cost of equipment. The station utilizes a Broadcast Electronics AudioVault system to program the musical outlets and is running the digital signal via a BE IDi 20 HD Radio Importer and FSi 10 HD Radio Signal Generator. The station uses a BE FMi 703 digital transmitter.

Chief Engineer Mike Peters said there have been some issues with coverage area, noting that the digital signal doesn't reach as widely as the analog; but overall the move to digital has been fairly

smooth. He said he has found some flaws with the hardware, but added, "It's all first-generation equipment and it's getting better. It's not a bad thing, just something new to deal with."

Overall, Peters said, "The ability to have three programming sources is a wonderful tool."

Like his cousins on the commercial side, Haines is well aware that most

people in Fort Wayne can't really enjoy the new digital signals.

He says that when the station bought 10 Boston Acoustics digital receivers, staffers joked they now had a cume of 10. For now, the news and classical formats are being streamed on the station's

Messagecast

► Continued from page 42

interleaving, and it's something good messagecasting software can do today.

Today's messagecasting software also allows you to schedule the promotional messages you want to send. Scheduling tools allow you to set up blocks of messages (similar to rotating carts) and changing the messages hour to hour. On-line tools allow instant updates, so you can keep up with current contests and winners.

Sales and programming

The ability to tie messages to specific commercials makes an easy sale for existing clients. Today is the day to start training clients to think about data. It's possible now to display short messages as audio commercials run; possibly phone numbers, addresses or tag lines.

New opportunities are already being developed that take advantage of HD Radio technology. For example, instant traffic updates are being delivered in many large urban areas today. Messagecasting software can bring in all sorts of data and present it in connection with audio, creating sponsorship and revenue opportunities.

Messages can be associated with any audio, not just commercials. Clients can sponsor any programming on the station, from sports to news, from contests to syndicated programming.

Web site (www.nipr.fm) with the jazz format to begin streaming sometime this summer.

"We need to do some marketing," Haines said. "We need to be the guest speaker at the Rotary Club. Marketing is viral. We do have a Web page. We do announcements on the air. People are starting to understand."

"We'll wear them down, like water on rocks. A lot of this is mission work right now."

Once more listeners have access to digital, Haines sees a much larger pool of potential donors.

"It will be a tremendous asset," he said. "We're looking at targeted e-mails. As we get more clever, we can adapt e-mail messages that are format- and station-specific. We'll have a lot of opportunities."

Meanwhile, Haines sees a time when Fort Wayne will add a fourth signal, perhaps a Spanish-language outlet for the growing number of Hispanic immigrants in the region.

For now, fans of the station seem to be taking the long view, aware that the digital formats will reach a miniscule audience for the next few years.

"At this point, it's only the real audiophile who knows about digital," said Marie Bailey-Greene, chairman of the Northeast Indiana Public Radio Community Advisory Board. "Many people will keep their radios and their tuners until they break, or until they're no longer satisfied. But we're all thrilled. ... This makes the station stronger and we're able to get a lot more of what we want to hear on the air."

Jeff Borden is a Chicago-based writer and editor. He wrote about the digital radio plans of the Los Angeles Clear Channel cluster in our special multicasting supplement in March.

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Scrolling call letters and slogans reinforce your brand, which can be handy when they write in their diaries about their favorite stations. Messages can be configured to recycle listeners from one daypart to another, increasing TSL.

Summary

All the tools we need to send compelling messages to our listeners are available. We have automation systems that can send some limited data. We have messagecasting software that is great today, and will be even better tomorrow. Encoding and transport/transmission devices are available to deliver our content.

The future of messagecasting is exciting. With the creativity in our industry, who knows what applications there will be tomorrow? But the NOW is exciting too.

Paul Jackson spent 12 years programming and selling commercial radio before joining the customer service team for Broadcast Electronics' AudioVault.

RW welcomes other points of view.



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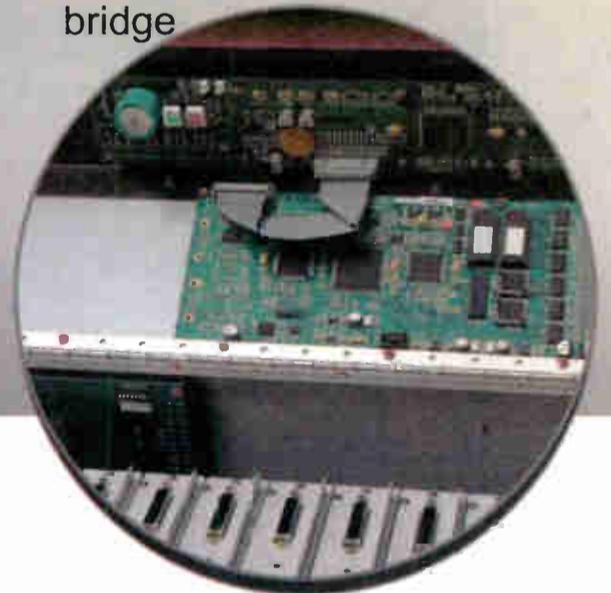
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NAB 2006

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Photo Gallery



Photo by NAB

▲ Commissioner Deborah Taylor Tate was sworn in on Jan. 3.

▼ No office? Make your own in a corner of the North Hall, as Greg Monti of ABC Radio Networks did.



Photo by Scott Fyback



◀ NAB said about 25,500 people came to the show from beyond the borders of the United States.



Photo by Paul Keenan



Photo by Paul Keenan

◀ Burk's Anita Russell shows off the new management capabilities of the ARC Plus broadcast facility control system.

▶ APW Mayville, under new ownership, played up a line of new Stantron Broadcast Rack products.



Photo by Bob Keenan

▲ Tino Romagnoli of Bext and Cipriano Mercado of First Technical reflect on the Bext LEX-100 FM Exciter.

▼ Signs of the times: AEO's Paul Loman is surrounded by microphones in the NAB Radio Hall.



Photo by Jackie Brown

Independent Talkback

A Headphone System with Selectable Talkback for Each User



FlexPhones Master

The FlexPhones Master is a professional Broadcast/Studio six channel distributed headphone system with independent talkback capabilities. Each of the six channels provides stereo program monitoring and selective talkback with interconnection via CAT5 cable to multiple Active Headphone Remotes (AHR-1) and/or Monitor Selector Interface (MSI). Multiple masters may be cascaded to form larger systems.

The FlexPhones Master is equipped with inputs for stereo program and talkback audio. Rear panel program and talkback trimmers are provided to pre-set maximum input levels. The microphone/line level talkback input is available via a rear panel plug-in euroblock connector, while the front panel XLR connector facilitates the use of a user-provided gooseneck microphone or headset. The front panel is equipped with a level control for local headphones with both 1/4" and 1/8" stereo headphone jacks. The six front panel talkback switches allow the user to independently communicate with each AHR-1 listener and can be configured to insert talkback audio into only the left or both ears and dim either or both program channels. Any combination of switches may be pressed, while the "All-Call" interrupts all listeners. The Talkback function can be remotely controlled. Six RJ45 jacks are provided to distribute audio and power via CAT5 cable to the AHR-1's, which conform to the Studio Hub format. Low-Z balanced audio distribution is used to preclude audio degradation with long cable runs.

AHR-1 Active Headphone Remote

The Active Headphone Remote (AHR-1) contains a stereo amplifier designed to work with any combination of high-efficiency headphones with impedances between 24 and 600 ohms. The AHR-1 is equipped with 1/8" and 1/4" headphone jacks, level control, user-configured utility momentary pushbutton and LED indicator. Two rear panel RJ45 jacks are provided for connection via CAT5 cable to the FlexPhones Master. The AHR-1 may be desktop mounted, under counter or with the optional HR-1/MP or HR-1/MP-XLR mounting plates, which may be turret or counter-top mounted.



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NEWS WATCH

New Media As 'Expansion Of Radio Market'

New digital media platforms like Internet radio, satellite, and podcasting are really new forms of radio and are a "testament to the popularity of radio programming." So says Arbitron in releasing a study it conducted with Edison Media Research.

In "The Infinite Dial: Radio's Digital Platforms," Edison Media's Larry Rosin said, "Our research shows that regardless of the platform consumers see all these options as merely being new forms of 'radio.'"

- Internet radio is growing rapidly. "The monthly audience ... now tops an estimated 52 million, an increase from an estimated 37 million people in 2005," the researchers announced. "The weekly Internet radio audience also increased 50 percent over the past year, with 12 percent of the U.S. population age 12+ (an estimated 30 million) having listened to Internet radio in the past week, up from 8 percent in 2005."

- Arbitron said online radio reaches one in five people 18-34 each week, and 15 percent of people 25-54. More than a third of respondents were "very" or "somewhat" interested in HD Radio; more than 40 percent of satellite subscribers say they are interested in HD Radio as well. "More than one-third of those who said they were interested in HD Radio say they would be likely to purchase an HD Radio receiver at a \$100 price point, and 58 percent of those interested say they would be likely to purchase at \$50," Arbitron and Edison Media stated.

- The researchers said 77 percent of respondents said they expect to listen to AM/FM radio as much as they do now despite increasing advancements in technology.

- Awareness of satellite radio "has reached equal levels of 61 percent awareness each, among those age 12 and older." Nearly one in five non-subscribers say they are "very" or "somewhat" likely to subscribe to satellite in the next 12 months.

Company Hosts 'Loveline' Text Messaging

Neo Network Mobile is hosting the subscription-based text-messaging dating service for Westwood One's "Loveline" radio program.

The service is available as a premium short message service or SMS, which is billed to subscribers at a cost of \$4.99 per month. Neo Network Mobile is owned by a firm in Milan, Italy, that recently opened the U.S. subsidiary in New York.

With a subscription, listeners can make 25 outgoing text messages per month; each additional message costs 25 cents.

The service will let phone users create personal profile; get "Loveline" matches; locate member profiles and navigate the community database; send and receive text SMS from other users; and send text messages to the host.

For information about Neo Network Mobile call (212) 946-4889 in New York or visit www.neonet-workmobile.com.

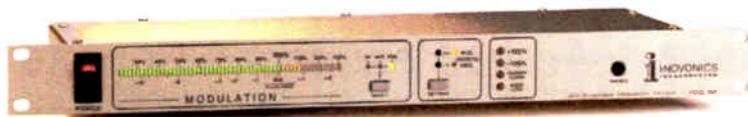
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GUEST COMMENTARY

KOOP Rebuilds After

by Andrew Dickens

KOOP(FM) signed on in 1994 with a mission to provide innovative grassroots programming to the Austin, Texas community. Many dedicated volunteers and two staff members operate KOOP. The station aims to be a model for community-owned and -operated media. We have invested significant effort to advance the quality and relevance of our programming, refine our governance structure and improve our operations.

We learned recently that KOOP is more than equipment, wires, albums and a physical address. We're a community of people — volunteers, staff, listeners, businesses and community organizations. The tenacity of this community has been illustrated in our recovery from two recent fires. This is the story of the challenges we face and how we are working to overcome them.

Up in smoke

Evenings at KOOP can be a beehive of activity, and January 5, 2006 was such a night. A visiting musician was in the studio recording an interview, the programming committee was discussing our schedule and the engineering team was making plans and assigning projects. Later, some of us adjourned to Emo's (a live music venue) to watch the band of some fellow KOOPers. Around midnight, I walked by KOOP on the way to my truck.

I flipped on the television to see footage of a downtown building engulfed in flames. It was our building. It was burning. Again.

Two hours later I was back at KOOP. I had been awoken by a call from William Blair, the station manager of KVRX(FM) with news that the building that housed KOOP was on fire. A text message from our Promotions Director Rebecca Gutierrez confirmed the news. I arrived on the scene to find four blocks of downtown Austin closed and packed with fire trucks.

Parts of our three-story building had been built sometime around 1915. It had a lot of character and housed an interesting assortment of tenants. KOOP occupied the third-floor loft area. Below us were a dance studio, Sweatbox (the legendary Austin recording studio), artist studios and rehearsal space. It was a wood-framed building with a maze of hallways, which had been built, partitioned and partitioned again.

One second-floor tenant had a studio packed with newspaper clippings and photo paper. He also smoked. A misplaced cigarette ignited the paper and quickly grew into a three-alarm blaze as the Austin Fire Department struggled to contain it in the old structure. Aggressive action stopped the flames at KOOP's door. We took extensive smoke damage and some fire-fighting damage, but mercifully little heat and water.

When the sun came up, the recovery effort began. We contacted our insurance and got an electronics restoration team out. We had cleaners decontaminate our

area, furniture and every record and CD. The property manager hired electricians to separate our electrical system from the damaged portion of the building so the city could reestablish power. We moved our office offsite and backed up our hard drives. We replaced our smashed doors, boarded up our smashed windows, thanked the Fire Department and started about plans to move to a permanent new home. We returned to the air on January 11 at 9 a.m.

Déjà vu all over again

We faced a financial challenge to afford the build-out expenses and higher rent that would come with moving to another facility. Fundraising efforts were in full swing to help us through this transition. A community organization contacted us and offered to match part of our fundraising, but requested we do an on-air membership drive the weekend of February 4. We scrambled to prepare and were looking forward to a weekend of recruiting new members.

In the early morning hours of Feb. 4, 2006, I woke up to a phone call from Dan Knight of KVRX. I listened to his news and was puzzled. I flipped on the television to see footage of a downtown building engulfed in flames. It was our building. It was burning. Again.

I arrived to find ladder trucks pouring water into the smoking remains of the building that housed KOOP. The fire had

started further down the block in a club. The fire raced through adjoining buildings and destroyed half a block of downtown Austin. The roof of our building was caved in right up to our studios. Our microwave antennas were normally visible from the ground, but had now disappeared from view. Firefighters stood on our roof, pumping water through our skylights.

Parts of the block had collapsed early in the fire, forcing the fire department to evacuate the buildings and fight the fire from the outside. They pumped massive master streams from ladder trucks and blasted water in through windows and skylights.

KOOP did not fare well in the second fire. Flames entered KOOP through part of the floor and from the windows facing the collapsed portion of the building. KOOP HVAC unit fell when the second floor roof collapsed underneath it, ripping a gouge in one wall and allowing the fire free access to storage space and equipment racks. Our microwave antenna and tower also fell through the roof, landing twisted, melted and smashed on the floor below.

In the main studio, flames entered through the windows and walls. The ceiling tiles had curled up into little melted balls, and exposed wires were now reduced to bare copper strands. CDs in the topmost racks were burned, twisted



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Back-to-Back Fires



Fire damage



A view from KOOP's main studio during its initial damage assessment walk-through with the fire department. Firefighters are seen dousing hotspots.



KOOPers remove a damaged console.
Left to right: Andrew Dickens, Amy Wright, Jay Robillard



A melted record in KOOP's main studio.

and deformed. Equipment left behind shadows on the tabletops. The entire structure was flooded and we walked through deep puddles of standing water. It was clear that our studio was a total loss.

Community service

Our staff and volunteers met to assess the situation and formulate recovery plans. KOOP had neither a home nor equipment, but did have a large team of dedicated volunteers with a range of different skills. We identified several challenges ahead of us. We would need to generate our plans to relocate, manage insurance claims, locate replacement equipment and drastically increase our fundraising to cover the costs of building out a new location.

KOOP's esteemed "Tech Team" vowed to return the station to the airwaves from a temporary studio while the relocation effort proceeded. This required finding a place to operate from and equipment. The technical volunteers met to assess the stations needs, and then worked to contact our local SBE chapter, local broadcasters

and industry contacts.

Finding a temporary location was the first task on this project's critical path. KMFA(FM) contacted us and offered to sublease unused space. The empty space was perfect for our immediate need. KMFA also loaned KOOP the use of their ISDN line and Telos Zephyr. We now had space and half of a studio to transmitter link.

Matt Daley, KOOP's chief engineer, set out to expedite the installation of an ISDN line at our transmitter site. With prodding, the phone company managed to install the line within a few days. Rich Dean and Dana Whitehair of KUT(FM) loaned a Telos Zephyr for the transmitter, completing the link. We had no previous experience with ISDN gear. When we attempted to connect the link, we discovered the phone company transposed two digits on the SPIDs. After trying a few permutations, the unit at the transmitter successfully called KMFA and established our studio-to-transmitter link.

Many local broadcasters were gracious to loan us critical equipment. Dusty Black, Mike Purdell and Gil Garcia of Clear

Channel Austin assisted us by loaning a spare console, mic booms and a tape deck. Gary Shapiro of Border Media Partners loaned a spare EAS unit. Piece by piece, we were rebuilding a radio station.

Fellow community broadcaster KEOS(FM) was one of the first organizations to contact KOOP with an offer to help. KEOS is a community radio station in Bryan, Texas, run entirely by volunteers. Lance Parr and George Weber made the drive to Austin, bringing CD players, a phone hybrid, turntables, microphones and wiring. They would make the drive twice more over the next few days to help install and test our new studio.

KOOP's training team began the process of documenting the operation of the new studio. Over the next week, the training team would provide crash training for our entire staff. There were plenty of logistical and communications challenges in order to synchronize more than 70 programmers. KOOP's programming committee took on this challenge by appointing a point contact for each day of the week who made sure all programmers had directions, bus route information, a way to get into the building and procedures for locking up at night.

At 9 a.m. on February 22, KOOP once again returned to the airwaves.

Intangible qualities are what make

organizations strong. The indefatigable spirit of our volunteers, the can-do attitude of our staff, the support of the Austin community and the help of our fellow broadcasters made us strong as an organization, even with the loss of our physical assets. I would like to offer a heartfelt "thank you" on behalf of our station and its listeners to everyone in the broadcast community who is helping us through these challenging times.

Disaster preparation has been a hot topic for broadcasters this year. In late 2005, the topic of disaster recovery was discussed in a KOOP strategic planning meeting and we identified actions to reduce our risk. Foremost among these was ensuring we had offsite backups of our critical data — membership lists, financial data, underwriting contracts and contact information. After the January 6 fire, we took the additional action of mirroring our hard drives and storing the mirrors offsite as well. This simple and inexpensive action prevented a much larger impact to the organization.

KOOP is working hard to find and build our new home. It is a challenging but exciting progress, and I look forward to sharing the story of KOOP's rebuilding in the future.

Andrew Dickens is president of KOOP.

◆ READER'S FORUM ◆

BBG on Playa de Pals

The Broadcasting Board of Governors (BBG), which oversees all U.S. non-military international broadcasting, continually assesses our broadcasting requirements in order to determine the best mix of available broadcast media to serve priority audiences around the world. Since 9/11, this has led to dramatic changes in determining our target audience and the technologies used to reach them.

Change is never easy and is not always received with enthusiasm by those affected. The letter from George Woodard (*Reader's Forum*, May 10) is an example of reaction to change.

I appreciate Mr. Woodard's regret that the towers at Playa de Pals were torn down. There is a great deal of nostalgia among some VOA veterans of the Cold War for the days of clattering typewriters and shortwave radio. To fight the War on Terror, however, requires the latest in satellite television technology, FM radio and the Internet.

I can assure Mr. Woodard that every member of the Broadcasting Board of Governors (BBG) regrets having to cut back on any of our programming to meet our budget priorities. I can also assure Mr. Woodard that any 'sinister forces' attempting to influence the BBG have been held at bay. However, it is clear that satellite television and the Internet are to the future of communications what shortwave radio is to the past.

The changes the BBG is making in the way it broadcasts news and information is driven by substantial changes in the way people use media in the 21st century.

For decades, shortwave was the only means to reach large audiences across oceans and national borders. Although there is still an audience for shortwave, FM has become the dominant medium in heavily populated urban centers. As for the Kavala Tower in Greece, its closure again reflects our changing world.

International broadcasting stations in Greece have served their missions well over the past 50 years. However, it is only one of a number of European facilities that have been closed since the end of the Cold War. The Playa de Pals facility was closed five years ago. Surplus equipment from some of these stations has been economically and effectively redeployed to other BBG facilities in

Kuwait, Sri Lanka and the Northern Marianas.

In other words, the shortwave broadcasting mission in Europe that capably served our needs for over 50 years has shifted eastward to Asia. Transmission assets must follow this transition, as well.

However, Afghanistan and the countries in the Middle East referred to as shortchanged by Mr. Woodard actually are receiving a myriad of popular radio and TV broadcasts around the clock. In fact, Radio Free Afghanistan now has a weekly listening audience of over 75 percent.

As the global requirements for international broadcasting evolve, the BBG must carefully choose to devote its limited resources to those programs and transmission media that are best able to serve the most critical target audiences in the future.

Brian T. Conniff
Executive Director
Broadcasting Board of Governors
Washington

License Revoked

The demise of the First Phone, the subject of Buc Fitch's article in the March 29 issue, was first suggested 80 years ago by Congressman Griffen of New York. With respect to the Radio Act of 1927, he argued, "Why should an operator be required to procure a license? We have locomotive engineers running great trains all over the country; trackwalkers, signalmen and other employees engaged in great undertakings, where human life is at stake and where there is great responsibility, and who are not required to submit to this license nuisance.

"I ask the gentleman proposing this bill: What is the earthly reason for requiring the licensing of an operator at a broadcasting station? Do you not suppose that the employer of that operator knows whether he is efficient or not? Is it not his duty and his obligation to look after the character of the men he employs and whether or not they are efficient?"

"Why should the United States government," he continued, "assume this responsibility and undertake to establish a bureau, with numerous clerks, filing cases, and an elaborate mechanism, in order to provide help for the operating stations all over the United States? The next logical thing in order, with this precedent established, will be to require Federal licenses for telephone and telegraph operators. It would surely be just

'Digital' Isn't Going to Fix Bad Edits

No matter how the contentious talks between NPR and its unionized broadcast recording technicians turn out, the dispute calls attention to an issue faced by many in radio today — is it better to edit via the eye or the ear?

Some public radio engineers, commenting on the PubTech listserv, are complaining about sloppy editing they hear on some of their national programs lately. (Presumably the same problems they would pick up on commercial radio would be more acceptable to them because they expect a higher quality product on long-form radio.)

The engineers believe that rushing is causing bad edits and that listeners have taken notice. As in the days of tape and grease pencils, rushing can cause someone to miss the break between the end of one word and the start of the breath intake at the beginning of the next word and leave an upcut.

"Producers and reporters expect ever-faster editing from their engineers," stated the editor of a nationally syndicated commercial radio show in one post — ever-faster, because fewer people are doing more work. "Not that cranking out more pieces in less time isn't one of the advantages of digital editing, but there is a point where I think that the demands on the engineer for speed approach the ridiculous."

Now, with digital editing software, assembling and mixing a story takes a quarter of the time it used to, but sacrificing accuracy for speed can ruin the final product, this editor believes.

Zooming in tight at the edit point and enlarging the waveform to make it "tall enough" to actually see where the breath ends and the next word begins would only take a few seconds, argue others.

We're not advocating going back to the days of attaching dozens of pieces of tape to the Ampex with labels like "breath" or "room tone" or even worse, recording audio onto a moving cart and achieving that hideous "burp" at the beginning and end of the cart.

We would hope that audio-quality-wise, stations would maintain high standards. HD Radio is not going to fix poor audio editing or production values. With the big PR push on now by the alliance and other stations that have gone digital, let's use the opportunity to renew our focus on creating pristine audio content.

Isn't that a basic premise of why we're in radio?

— RW

as reasonable.

"This whole section and all of these paragraphs ought to be eliminated from the bill. Let the people who control the stations select their own operators and use their own judgment."

Seventy years later, Congress accepted his argument, removing the federal licensing requirement for operators of broadcast transmitters.

An excerpt of the book with the history of broadcast operator licensing is available at www.hallikainen.org/nab/unattended/RegHistory.pdf.

Harold Hallikainen
Santa Maria, Calif.

Survive and Thrive

To quote one of my favorite philosophers, Stan Freberg: "Words to live by, Cratchit!"

What more can I say in response to Bob Raleigh's "What Is the Real Future of HD Radio?" (March 29) He is

absolutely correct in his observation that, "It is content that is going to drive (HD) receiver sales, not better audio quality of the same stuff we've been giving them."

As a public radio programmer, I am proud of the content we make available at WMUB(FM), our 56-year-old station in Oxford, Ohio. Yes, much of that content is from NPR and other suppliers; but we realize that locally produced materials, especially news, will be the flypaper that keeps listeners with our station.

We have a lot of work to do to localize our HD-2 channel — maybe an HD-3 in the future? But I am impressed and encouraged by the vision of colleagues such as Bob Raleigh. As an industry, terrestrial radio, both commercial and non-commercial, is being challenged on a number of fronts. If we can keep content and service to our listeners as the primary goal, we'll not only survive but we'll thrive for many years to come.

John E. Hingsbergen
WMUB(FM)
Oxford, Ohio

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