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Radio World

$2.50 The Newspaper for Radio Managers and Engineers July 16, 2008

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Photo by Ty Ford

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OPINION

NewBay Media

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GSS Seeks Its Place in Enhanced EAS

Other 'Private' Systems Also May Emerge

by Randy J. Stine

JACKSON, Miss. With a new approach to public warning on the horizon, Global Security Systems is actively pushing its Alert FM datacast technology — an FM-based digital alert and messaging system — hoping to emerge with a role in the new EAS platform being developed by the Federal Emergency Management Agency.

This is an active time in emergency alerting. From congressional subcommittee hearings in Washington to FCC-sponsored EAS summits, emergency alerting development remains a fluid situation with many different voices speaking. GSS hopes to be heard among the crowd.

As RW has reported, the Global Security Systems Alert FM system uses Radio Broadcast Data System subcarrier frequencies to transmit text data to Alert FM receivers and specially equipped portable devices. GSS believes its system will complement a new EAS. The company now has rolled out Alert FM in 12 states with more than 200 FM stations on

See ALERT FM, page 5 ▶

EAS Watch Monitors Stations

Company Hopes to Make a Business Out of Verification of Station Participation in EAS

by Randy J. Stine

SUMAS, Wash. A recently formed technology company says it has designed a system to allow state emergency managers to monitor which broadcasters are receiving — and even more important, are forwarding — emergency messages over the air.

Cascade Technology Corp. says its technology will complement the next improved version of the Emergency Alert System. Its IP-based system will allow warning officials to view data showing just how many radio and television broadcasters really are broadcasting emergency alerts.

Cascade officials view EAS Watch, not yet for sale, as a tool to warn professionals and others concerned that some broadcasters neglect EAS by not maintaining their equipment properly.

President Michael Lee formed Cascade in January to pursue opportunities in alert monitoring and signaling. Cascade

See EAS WATCH, page 6 ▶

NEWSWATCH

Large Groups of Competing NCE CPs Released

WASHINGTON The FCC is working its way through more than 3,600 applications for NCE construction permits filed in 2007. This June it released another batch of competing applications so the parties have time to work out settlements. This batch consists of groups of 13 or fewer applicants each seeking the same frequency.

To promote settlements and ease workloads on applicants and their consulting engineers and attorneys, the Media Bureau says it periodically will issue additional public notices identifying the remaining mutually exclusive groups. An applicant who believes that his or her paperwork has been mistakenly included or excluded from any of the mutually exclusive groups should notify the Audio Division.

The commission has processed approximately 950 applications that were easier to grant or dismiss.

We reported in March the bureau released a notice that included groups consisting of four or fewer applications. Most of the remaining applications are those competing with at least three other proposals for the same frequency.

Arbitron to Count Multicast Channels

NEW YORK Arbitron will begin reporting listening for Internet streaming and HD-R multicast stations in Portable People Meter markets this month.

These stations, which must encode and meet minimum reporting standards, could be in the July Philadelphia and Houston Market Reports.

The audience research firm said in June that 69 of the 78 eligible HD2 stations are encoding for PPM as are five of the seven HD3 stations; and 147 of the eligible 187 combination "AM/FM/Web" stations were also encoding.

In order to ensure proper encoding, Arbitron recommends Internet streams should be operating with a minimum bit rate of 32 kilobits per second and a sample rate of 44.1 kHz.

Only streaming related to AM/FM broadcast stations will be included. Internet-only stations are not included.

News Roundup

CPB: A congressional committee approved advance funding for the Corporation for Public Broadcasting with what would be a $10 million bump for fiscal 2011 if enacted. The legislation approved by the House Appropriations Subcommittee on Labor, Health and Human Services and Education provides CPB a $430 million appropriation for that year; CPB had asked for $483 million for 2011 to be included in the president's 2009 budget. The panel also OK'd an additional $40 million for digital conversion and $27 million for the public radio interconnection system for 2009. The full House Appropriations Committee was expected to vote on the measure in late June. The Senate Appropriations Committee also must act.

RADIO REVENUE: U.S. commercial radio took an 8 percent hit in revenue in May, its 13th consecutive monthly decline. Compared to May a year earlier, local revenue was off 9 percent and national plummeted 13 percent, according to monthly figures from the Radio Advertising Bureau. Non-spot revenue continued to buck the trend, up 12 percent. In May the average big market was down 8 percent but the average small market was off 3 percent. Small markets continue to outperform big ones this year.

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FM-Capable Cell Phones Would Benefit All

But Study Finds Also Finds a Need for Urgency Because the Time Window Is Limited

by Randy Stine

WASHINGTON A report commissioned by an NAB advocacy program aimed at fast-tracking advanced services for radio states that the radio industry should move quickly to convince cell phone manufacturers of the benefits of producing FM-capable cell phones.

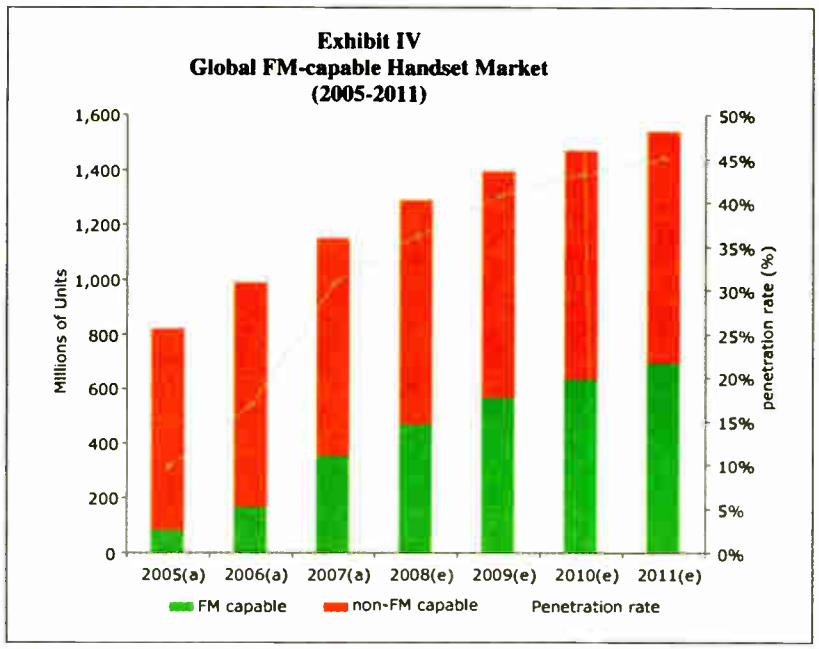
The fact that the NAB expects to begin outreach immediately to cell phone handset makers touting the potential benefits reflects the urgency of the developments, observers said.

The report states that FM-equipped cell phones could play a significant role in radio's future by representing a large influx of new listeners and broadcast services.

The study was written by Dr. Joseph Kraemer, director of the Law and Economics Consulting Group, and Richard Levine of Constantine Cannon LLP.

The NAB FASTROAD Proposed Rulemaking whether radio data systems like the Radio Broadcast Data System meet their goals for efficient delivery of alerts over the CMAS.

"The emergency alert part of the study is very important to the FCC's goals and could be critical to its development. It could justify our whole initiative in and of itself. It is certainly about more than just warning, but that is a big part of it," said Dennis Wharton, vice president of communications for NAB.



The global FM-capable handset market. FM penetration globally is 31% and expected to increase to 45% by 2011.

The authors identify approximately 257 million current American cellular subscribers. However, only 12.5 million cellular handsets, about 8 percent of the total sold to date in this country, are FM-capable.

Specifically, most Sony Ericsson handsets introduced in 2008 have FM reception capability. However, the vast majority of phones sold by LG, Samsung and Motorola, the three largest handsets suppliers to the U.S. market, have no FM reception capability.

Base turnover

The report also found that FM radio on handsets is much more prevalent outside the United States.

The benefits to the cell industry of including FM are numerous, the study found, including increased cellular service subscriber satisfaction, ad-sharing opportunities and increased music download potential.

"This goes toward our goal of getting broadcast radio devices on as many devices as possible. This suggests that FM adaptability to cell phones is real and worth pursuing," Wharton said. "The capability of extending FM services to hundreds of millions of new devices is exciting."

Once most cell phone makers adopt the FM receiver platform, penetration in the marketplace could be rapid. The study cites statistics that show the embedded base of handsets in the U.S. turns over in approximately 19 to 20 months.

"Assuming FM capability was added to a considerable portion of new shipments of U.S. handsets, within two years there would be substantial penetration of the embedded handset base by FM-capable phones," the study found.

The study states that listening on handsets would be captured by the diary-based audience measurement system, but fails to address the fact that the current diary system is being replaced, in some markets, by Arbitron's PPM and how that may affect radio's ability to monitor cell phone listening.

Wharton said radio broadcasters in this country would benefit greatly if they can serve their product in more places.

"Expanding our brand to as many devices as possible is crucial."

Cellular operators have long cited a lack of consumer demand in the U.S. for FM on handsets as a reason for not adopting the platform en masse. Technical concerns also linger, according to the study.

"Concerns include adverse impact on battery power; need for a second internal antenna; and lack of FM coverage in rural areas," the study reported.

The authors of the report also noted that a "critical objection that cellular operators raise to FM-on-handsets is that free over the air music may compete with cellular music services."

With the new report in hand, the NAB will try to sell handset manufacturers and cellular operators on the benefits of FM-capable cell phones, Wharton said.

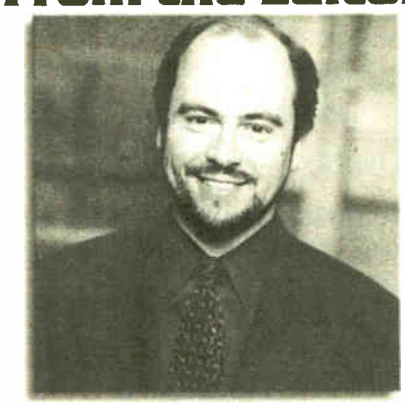
"We want to stress the importance of this issue from a consumer perspective and making the pitch that this will make their product even more desirable," Wharton said.

Wharton said he didn't expect these new developments to take away from the radio industry's push into HD Radio.

To read the study, go to *www.nabfastroad.org*.

Here Are a Few of My 25 Things

From the Editor



Paul J. McLane

I hosted a Radio World webinar recently about news and trends of interest to engineers and managers. Here's a taste of the topics that we discussed.

Fraunhofer, the German institute that developed MP3 and AAC, recently introduced MPEG 4 AAC Enhanced Low Delay.

This is an improvement on an algorithm used for video teleconferencing and other applications. The new version offers even lower delay — down to 15 milliseconds — and it allows the same audio quality at about half the bit rate. It combines the benefits of MPEG AAC Low Delay and Spectral Band Replication.

That's full audio bandwidth, suitable for speech and music, that can be transmitted for instance over IP connections at very low delay.

We're told by people who know that this will quickly become the industry standard for low-delay IP codecs. It already has been adopted by major codec companies including Comrex, Telos Systems and Mayah.

★ ★ ★

Everyone, it seems, is into audio over IP.

Not just IP-based consoles and routers, but facility and transmitter control, monitoring, on and on. You can hardly walk the aisles of the spring NAB Show without seeing an introduction with IP in the name. This is the gradual migration of nearly everything to IP-based platforms, and it has implications for engineers as "the melding of IT and traditional radio engineering continues."

There's a great deal of power and cost efficiencies for engineers in using both the Internet and IP interconnection. These "communication busses" not only are saving money for stations in leasing fees but they allow more throughput of audio channels, as well as control data and telemetry. And the Internet allows an engineer the convenience of doing his or her job from various locations while getting real-time feedback through the browser.

When I ask my experts, "What do you feel is the most notable technology trend that is reflected in radio broadcast product design," most answer with some variant of "the inclusion of an IP port on hardware." (The USB port comes in a close second; some also mention super-high-speed DSP processing chips, though that's been an ongoing trend.)

★ ★ ★

The economy has slowed equipment purchases in general and the HD Radio rollout of the larger companies specifically — though it's important to note that these days, middle and smaller radio markets tend to be less hard hit in terms of relative impact on revenue of the economy.

I hear that many capital projects are "on hold" or deferred pending some improvement. "Particularly disturbing," according to one engineering observer, is what seems to be yet another round of drastic technical staffing cuts at organizations that have already cut such positions deeply in the past.

U.S. commercial radio should see some financial benefit from the presidential election, of course. But there's no question capital projects continue to be a challenge.

That's also true in public radio; one chief told me his biggest concern is handling RF, IT and cost issues associated with IBOC installations. "I remain very concerned that IBOC will not pay for itself, even with the low-cost licensing for noncom educationals," he said.

But another, well known engineering consultant told me recently his clients are upbeat in part because they're working actively to develop all their alternative delivery streams, the kind of thing RW covered in our recent supplement "Radio in the Post-iPod Era."

Over time, he thinks we will see "changes in how stations are valued that relate to their ability to tie into alternative methods of program delivery."

★ ★ ★

Mobile TV is at the top of the agenda for TV broadcasters and it's important for radio too. The technology has been proven to work; and a standard for adding mobile TV to broadcasters' DTV services is being fast-tracked in time for roll out in coordination with the analog TV shutoff next February.

The window of opportunity is narrow. Broadcasters are rushing to launch mobile TV services that are already offered by cell carriers such as Verizon and AT&T.

Video is just one part of the equation. Most any data can be sent along the DTV bitstream, and the ability to send this data to moving vehicles, cell phones, public transit systems and so forth will open business opportunities for TV broadcasters — and more competition for radio in the portable world.

In addition to video, services such as digital signage, software updates, GPS, traffic reports and emergency alerts are some that television broadcasters could tap when considering how to monetize this.

The jury remains out on whether TV broadcasters will want to adopt mobile TV services. They are going to need to be confident of the ROI. Adding data to the DTV bitstream means more data to an increasingly crowded signal that offers secondary DTV channels in addition to the HDTV signal.

But this bears watching.

★ ★ ★

Something else people were talking about: Adobe Flash now supports MPEG HE-AAC v2.

I was talking to Steve Church at Telos Systems, who is very good at watching for how this kind of thing affects radio.

He says HE-AAC is the best codec out there; and Flash is everywhere, with even more penetration than the Windows Media Player. So he thinks this development will be a big boost to streaming.

There have been many player types, and much incompatibility. Flash seems to offer the best of all worlds; it now supports this powerful music codec; it has something like 98 percent penetration; it is available on PC, Mac and Linux.

YouTube and almost all of the online video services use it; and Flash offers big player programming opportunities, with audio, video and locally programmed and rendered animation and hi-rez text.

A station could stream video clips and text and graphics to accompany the audio. Because it can run applications locally, it can be interactive; so clicking a button can cause things to happen. You don't get this with Windows Media or Winamp.

Radio needs to pay attention to streaming developments. Groups are making money off streaming ads, and with the 3G iPhone announced and WiMax in the wings, streaming to mobile devices might be coming as something mainstream.

Church puts it this way: "A portable 'radio' with an iPhone user interface and a thousand channels is a paradigm shifter and an opportunity. Shouldn't broadcasters be on board?"

★ ★ ★

Other developments discussed include the change in standard wiring topology at radio stations; the recent launch by radio groups of a consortium to create a nationwide terrestrial broadcasting network to distribute traffic and other map-related data; and plans for an "extreme makeover" of the Las Vegas Convention Center.

You can still watch the free hour-long webinar "25 Things You Might Have Missed at the NAB Show" at *http://www.radioworld.com/webinar-archive.shtml*. Thanks to our sponsors Broadcast Electronics, Harris and Nautel.

Alert FM

▶ Continued from page 1

its network.

"Specifically, we are hearing from broadcasters that they see the importance of supporting this to remain an important part of EAS," said Matthew Straeb, executive vice president.

However, there are other experts in public warning who view Alert FM and other private systems simply as supplemental EAS services that will never be part of the primary EAS system. Some question the public service argument that GSS uses.

What about AM?

"I foresee many (private) services coming into the marketplace and they will be seeking partnerships with broadcasters for transport of their emergency data to mobile and fixed points," said Dale Gehman, president of Gehman Compliance and Consulting, a firm that specializes in emergency warning systems consulting.

While admitting the likely benefits of Alert FM, Gehman said companies like Global Security Systems should be paying broadcasters for use of their spectrum.

"I welcome the many entrepreneurial private warning systems that will be seeking broadcasters' spectrum to relay their product via the broadcasters' data paths. However, I would also want a monthly check for the use of my spectrum. It should be a business-to-business relationship," Gehman said.

Several other companies, including SpectraRep and Trilithic, are selling EAS-complementary systems that rely on IP-based technology. SpectraRep recently was awarded a contract from the state of Missouri to deploy its next-generation EAS system, called AlertManager.

Others worry that Alert FM leaves out AM broadcasters.

"My personal feeling is that while Global has come up with a viable technology, RBDS is an FM-only technology that leaves AM radio out in the cold," said Richard Rudman, vice-chair for the California State Emergency Communications Committee.

Other EAS observers worry about FM's penetration — or lack thereof — into office buildings and the need to purchase a special receiver to receive the Alert FM alerts.

Alert FM officials say broadcasters will be stakeholders in a system that requires they pay no recurring fees. GSS argues that typical cell network infrastructure is vulnerable and can become overwhelmed during a catastrophic event, thus the benefits of Alert FM's point-to-multi-point broadcast structure.

"FM broadcasters have been providing emergency alerting information in this country for over 70 years. Broadcasters risk losing this important service to cell, Internet and satellite service if they don't participate," Straeb said

Alert FM's targeted digital alerts, issued by emergency management officials, are delivered by satellite to FM broadcast stations and then transmitted via the data subcarriers of the broadcasters' FM transmissions. Broadcasters install a GSSNet satellite receiver, at no charge, to use the system.

States and local municipalities must purchase a bundled package of hardware and software, the Alert FM portal, to create and originate local alert notifications. The system, which allows emergency managers to send digital alerts, NOAA weather warnings and Amber Alerts, can cost $15,000 and up.

Straeb said state and local municipalities are not charged monthly recurring fees for using Alert FM.

For the system to work, local emergency managers need at least one FM broadcaster in their geographic area to sign on for Alert FM and allow the service to use the station's RBDS channel. In a typical scenario, local emergency managers are approached by GSS about Alert FM. In turn GSS will often work to secure promises from local stations to participate in the system, Straeb said.

Local emergency managers place Alert FM receivers with key emergency personnel within each community. Alert FM receivers also sell through the company's Web site and retailers for less than $50, Straeb said.

Both first responders and the general population can benefit from the system, Straeb said.

The FCC in April adopted rules for delivering Commercial Mobile Alerts to the public during emergencies. In compliance with the Warning, Alert and Response Network Act, the commission adopted rules specifying technical requirements covering emergency text messages to cell phones based on recommendations from the Commercial Mobile Service Alert Advisory Committee.

GSS officials have been meeting with FCC and FEMA officials and touting Alert FM as a possible solution or complement to mobile alert services, Straeb said.

"The FCC has acknowledged Alert FM as a possible solution," Straeb said.

FM broadcasters have been providing emergency alerting information in this country for over 70 years. Broadcasters risk losing this important service to cell, Internet and satellite service if they don't participate.

— Matthew Straeb, GSS

Activating FM chips

The company has also been actively pushing both government agencies to pressure cell phone manufacturers to place FM receivers in cell handsets, which would increase the number of devices on which GSS alerts could be received.

Alert FM developers say their single-point to multi-point technology has the ability to send text messages when other communication channels become clogged with traffic volume.

The FM chips found in some cellular handsets and other mobile devices can be activated to receive the alerts via FM-RBDS, GSS officials said, thus expanding its network.

The company estimates that 15 to 20

See ALERT FM, page 16 ▶

GSS' Adams Is 'Serial Entrepreneur'

JACKSON, Miss. By the time Robert L. Adams founded Global Security Systems in 2002, he already had a rich background in FM-data transmission systems.

Adams, president and chief executive officer of Global Security Systems, began work in 1985 with the technology called numeric MBS protocol, the predecessor of the Radio Broadcast Data System. He eventually lobbied the FCC to have RBDS approved and accepted as a standard in the United States for transmission of text and data along with an analog FM broadcast signal.

The National Radio Systems Committee approved RBDS on the 57 kHz subcarrier in 1993. By that time Adams had a decade of experience in the FM data business.

Adams is referred to as a "serial entrepreneur," according to his bio released by Global Security Systems. His background includes work in the oil and gas industries. In 1980, he established a long-haul trucking company and by 1986 had 1,100 owner operators working for his company.

It wasn't until Adams installed an FM paging and data system for his trucking company that he realized the growth potential of the wireless industry.

"After I installed an FM paging and data system from New Orleans to Houston and saw how well the system worked, I took the system overseas, where telephone lines were hard to come by," Adams said.

Adams eventually moved his wireless data and paging business into 22 countries, but sold the business in 1997 sensing the cell phone boom, he said.

He focused next on developing Alert FM, a personal alert and messaging system that utilizes the RBDS subcarrier and can be received via special Alert FM receivers and other devices equipped with a standard FM chip.

Adams has big plans for his Alert FM system. Eventually, the company's technology could be incorporated into smoke detectors, microwave ovens, refrigerators and other common home appliances, according to GSS.

GSS sells another product line, called My Simbook, a mobile social network that enables broadcasters to interact with listeners by synchronizing their radio broadcasts and advertisement with mobile devices utilizing RBDS.

GSS is headquartered in Jackson, Miss., and has offices in Florida, Louisiana, the District of Columbia and Sweden.

EAS Watch

▶ Continued from page 1

employs three software engineers and has a total of four employees.

Lee said he spent $60,000 on completing the first EAS Watch system design.

EAS entrepreneur

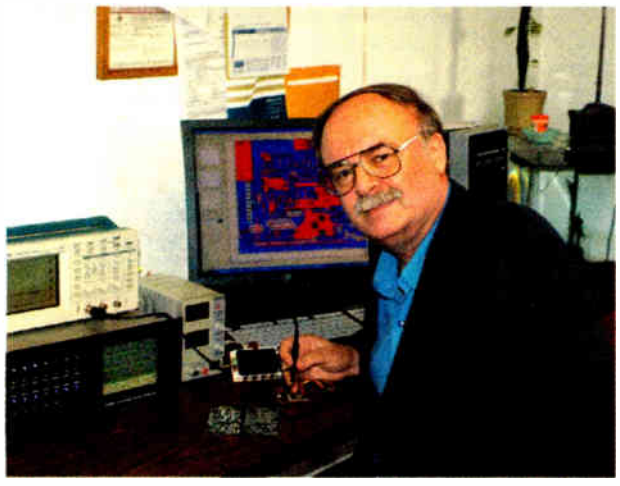
Lee, 59, has a public warning technology background.

He became involved with the Partnership for Public Warning in 2002, a non-profit consortium to help government, private industry and the public identify challenges to improving the nation's public warning capability. PPW was disbanded in 2005.

He owns SatStream System Corp., a satellite communications company that designs and manufactures EAS-related equipment and satellite communications systems; the firm has a contract with the New York government to supply that state with a satellite-based EAS system.

Current technology does not allow state emergency managers to confirm that stations are forwarding emergency alerts and information on the air, said Lee.

Several observers said they feel state emergency managers believe EAS is unreliable, in part because they lack message forwarding verification. "A program such as (EAS Watch) sounds like it might be a confidence factor" for the emergency managers, said Gary Timm, chair of the Wisconsin EAS Committee.



Cascade President Michael Lee with one of the first EAS Watch circuit boards.

Timm attended the recent EAS summit in Washington at which several emergency managers relayed just such concerns.

Mark Manuelian, Primary Entry Point Advisory Committee director and chair of the Massachusetts State Emergency Communications Committee, said, "As an SECC broadcast chair, I wish I knew which stations are participating in AMBER Alerts and which are not. I believe there are stations that intend to participate, but don't realize their EAS equipment is not properly programmed to do it."

This technology would confirm any or all emergency alerts within EAS, including AMBER and NOAA alerts, said observers.

Another broadcast engineer said the EAS Watch system might be useful in a limited way, but doubted it would be overly successful until the FCC finalizes changes to EAS.

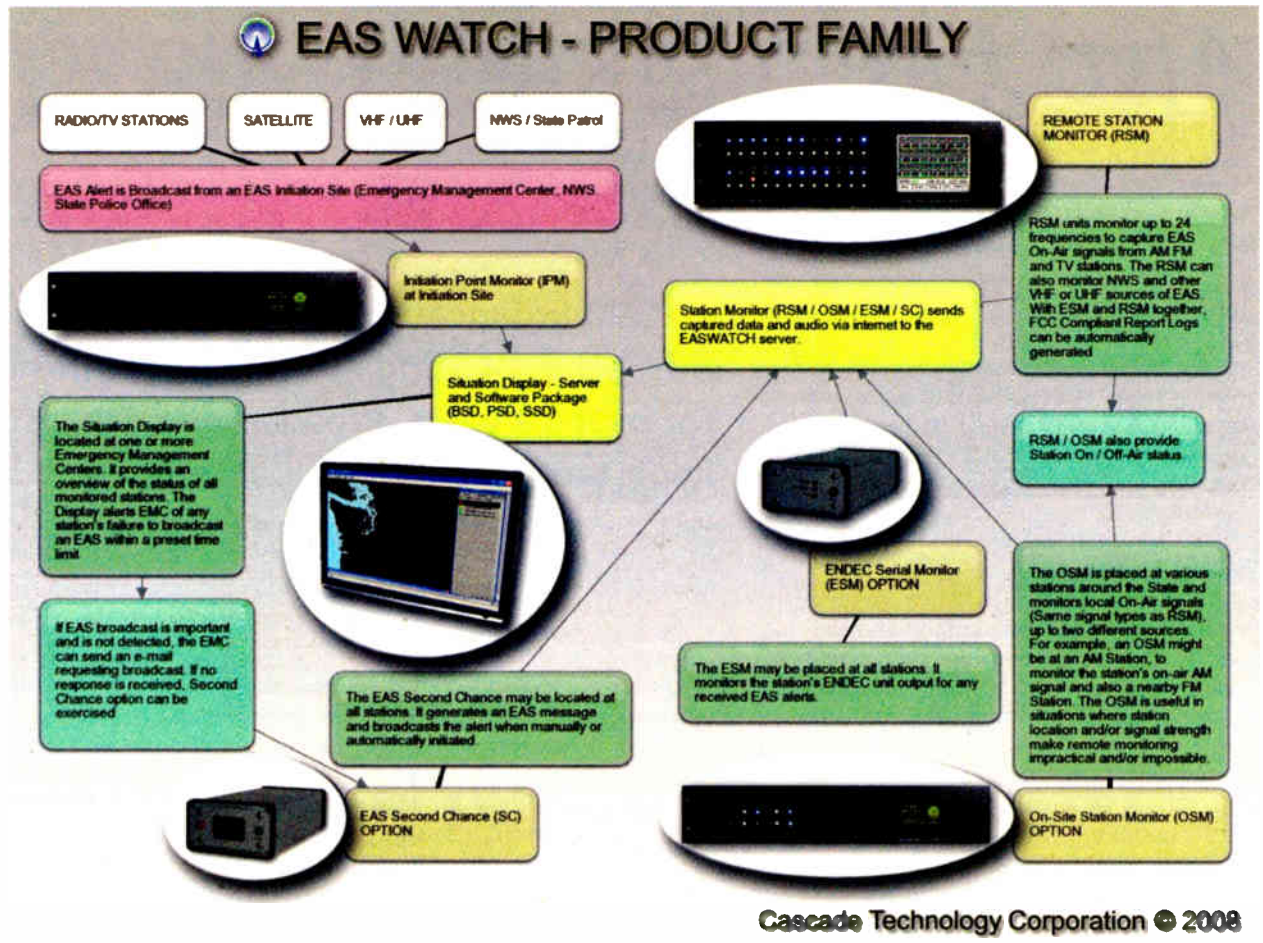
"With major changes coming to EAS I don't see many making major investments in any EAS-related hardware until all of this is sorted out," said the engineer, who asked not to be identified. (Governmental entities, not stations, would actually purchase the EAS Watch units.)

EAS Watch is "another piece to the puzzle of public warning. Sometimes EAS works and sometimes it does not," Lee said.

"The big problem is that there are no reliable EAS statistics on EAS performance — and no way to verify that when a very critical EAS goes out, say warning of a tornado, if it is really going on the air," Lee said.

Using his company's technology, "We can give confirmation that an emergency message was received and then broadcast."

EAS Watch uses a series of FM receivers positioned across a specific geographic area to monitor radio stations and report to the alert originators whether the messages were aired.



The big problem is that there are no reliable statistics on EAS performance.

— Michael Lee

Receivers typically would be located in government office or law enforcement buildings that have a good Internet connection, Lee said.

"Of course they should be located where they can receive as many stations as possible, and best not within close proximity of other radio stations that could cause reception problems."

Each EAS Watch unit includes a situation display, server and software package, which will be located in emergency management centers. The display will provide an overview of the status of monitored radio stations.

Receiver sites will include a rack-mounted receiver system with eight-, 12- or 24-channel receive capability. The receiver continuously monitors the terrestrial signals of broadcast stations, Lee said, scanning them for EAS tones.

"There is a microcontroller, receiver and support circuitry, including memory, for every channel monitored. EAS tones are analyzed in real time with audio saved to memory dedicated to each individual channel.

"The main controller scans through each of the receive modules to check for available EAS tone capture. When it is found it is sent immediately to the server. We want to get the basic EAS data our right away," Lee said.

Monitored continuously

According to the company's marketing material, EAS Watch conveys the receiver data collected via Internet to a high-definition TV "situation display" located in a state or regional emergency management center.

Through access to a relational database and decoding of the EAS Federal Information Processing System (FIPS) codes, the regional map at the emergency management center indicates stations with a yellow icon. That turns green if the station successfully broadcasts the EAS message.

"If a station fails to run the emergency message, the state agency will have contact info to immediately notify them of what happened," Lee said.

EAS Watch, which will be marketed to state-level emergency coordinators later this year, will cost $500 to $1,000 per radio or TV station being monitored depending on the number of stations and options included, Lee said.

Monitoring a large geographic area would necessitate additional receiver sites to ensure transmission reception, he said. Monthly service agreements would add to the cost of EAS Watch for government entities, but would cost broadcasters nothing, Lee said.

The system simply looks for EAS tones, decodes them and captures the audio for possible later transmission, and then relays that information in small data packets over the Internet, he said.

"We also do a technical analysis of an EAS message as it goes out, including detecting modulation levels and tone frequencies — essentially a health check of the EAS system," Lee said. "If there is an encoder failing or a station with the audio level way off, we can detect that."

Lee believes most broadcasters take their EAS responsibilities seriously. Except for carrying a mandatory presidential alert — which can only be activated by the president and has never occurred — and running monthly alert test messages, EAS is a voluntary system for broadcasters.

"However, there are cases where radio stations have intentionally ignored vital EAS messages. The big problem is that it is an undocumented problem. And look at the FCC enforcement action page [on its Web site] and you'll notice stations being fined for maintaining non-working EAS equipment."

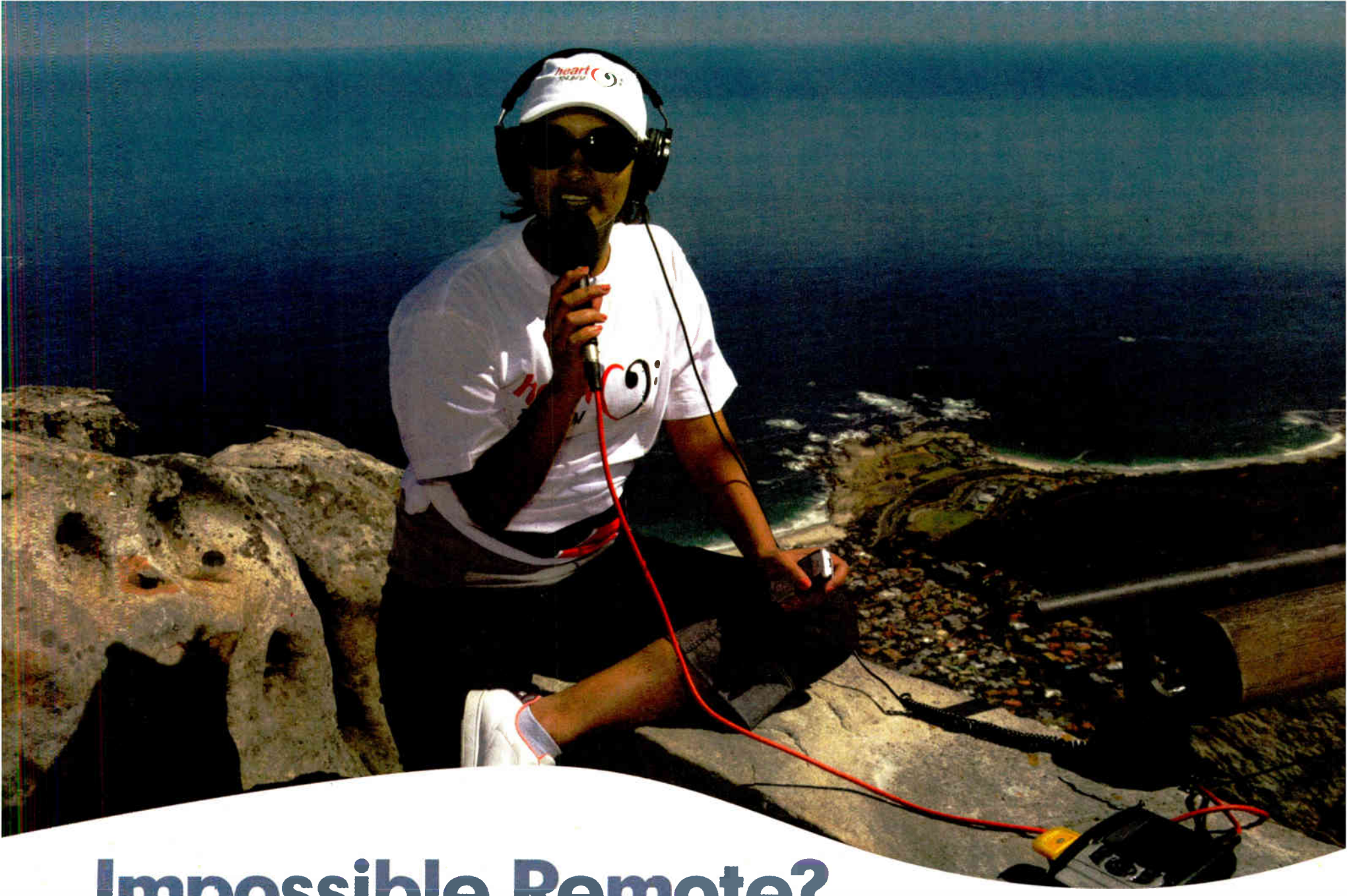
Cascade Technology officials met with representatives from the FCC in April to discuss EAS Watch. Lee said "two or three chunks of EAS Watch" may have to meet FCC compliance, including following the agency's Part 15 rules.

"We expect to roll out in phases. We have added an EAS Second Chance option that may require an FCC rulemaking, or at least an opinion from their engineers. EAS Second Chance gives us the ability to e-mail the emergency message to stations that maybe missed it, since we are already monitoring and recording messages anyway," Lee said.

Cascade expects to have two or three portions of the system ready for testing by the FCC this summer, Lee said. "In my experience with previous products there is a 50 percent chance of passing with no changes."

Lee said Cascade expected to launch a demo of EAS Watch in Washington state in June that would monitor EAS broadcasts from stations in the northwest region of the state.

Cascade Technology also is trying to raise additional venture capital to help get the EAS Watch off the ground, Lee said. The company plans to manufacture products in-house, but a contract manufacturer will handle the actual assembly of circuit boards.



Impossible Remote?

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*Above: Heart 104.9FM DJ **Koketso Sachane** doing his show from the streets of Cape Town.*

*Top: **Saskia Falken**, Heart 104.9FM Mid Morning Mix host broadcasting from Table Mountain.*

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A Spare Computer Monitors Site Power

by John Bisset

Last time I told you about Wes Boyd's link for a free CAD software package. Here's another freebie and a unique application for it, though it comes with a cautionary note.

Dave Case is chief engineer and IT director for Clear Channel Fresno in California. He needed to see what was happening on the power line at his transmitter site but didn't have the budget to buy or rent a power quality monitor.

Dave's solution was to use a free audio recording package to solve the problem. He prefaces his tip with a warning because the procedure involves connecting 240 volts AC to a computer.

Dangerous on two counts: first, it's electrical, and second, you'll be hooking this electric signal directly to your computer's sound card. Worse case, you can kill or seriously injure yourself if you don't know what you're doing, or at the least, fry a perfectly good computer.

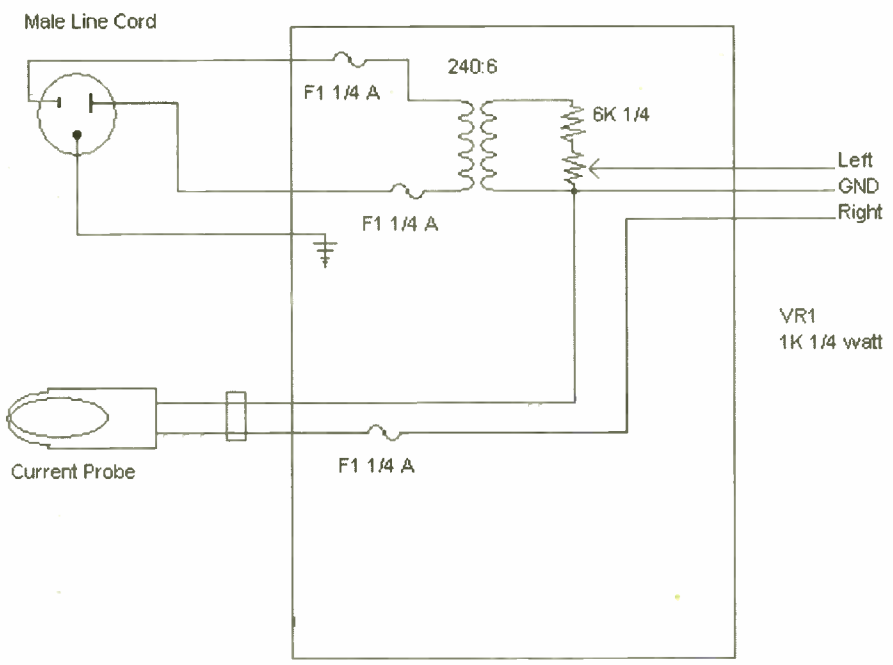
Simply put, only the most qualified of engineers should consider this tip. But as you'll see, the payoff is significant.

Safety first

If you're confident you're qualified to do this safely, here are the basic instructions for creating your own power quality monitor. These instructions are deliberately vague so only qualified technicians would be able to fill in the blanks.

Dave adds that if these instructions aren't specific enough, you probably shouldn't be doing this.

You will need a 240:6 transformer, wire, many fuse holders (in-line and panel mount), three large alligator clips and 1/8 inch TRS cable (or whatever the line input to your sound card is). An amprobe is optional, but if you have one, it should provide a one millivolt per amp output. Also needed are a box for all the connections, a laptop or tower computer and the audio recording software.



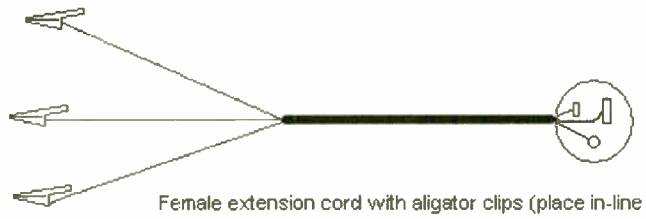


Fig. 1: The power quality monitor hookup uses commonly available parts.

Dave used Audacity's audio recording software, primarily because it is free; visit *www.sourceforge.net* and search for Audacity.

Sourceforge.net is the largest open source software development Web site, providing free hosting to open source software development projects.

It's a fun site to peruse, and it's where Wes Boyd found TinyCAD, featured last column.

In addition to the software, the other important part is the laptop or standard tower computer. Laptops work best because they operate on battery power should the AC line power go out.

The schematic shown in Fig. 1 displays the basic connections. Dave first attached in-line 1/8 amp fuses to two of the large alligator clips. The clips are used to connect to two separate phases of three-phase service, or between a phase and neutral for 120V service.

For the connection to the sound card, Dave used a stereo cable with 1/8 inch TRS connectors and cut off one end. The shield is connected to the box ground, and the "left" wire connects to the wiper of a 1 kohm variable resistor. This variable resistor is placed in series with a 5 kohm resistor, and connects to the secondary of the transformer. You should see an output voltage of 1V to 0V when the primary is connected to 240VAC (and 0.5V to 0V when connected to 120VAC).

If you're using an amprobe to monitor current, too, connect the amprobe to the "right" channel of the stereo wire. This allows monitoring of current and voltage simultaneously.

This hookup will draw almost no current, and the fuses are there for safety.

See SPARE, page 10 ▶

Only the most qualified of engineers should consider this tip.

WHEN EVERY SECOND COUNTS

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Spare

▶ Continued from page 8

The third alligator clip is used on a ground wire. The two in-line fused wires will connect to the primary side of the transformer; the ground wire will be grounded to the box.

A cable with a plug can be made to plug into a wall outlet to more safely monitor single-phase power quality at a site, without opening the electrical box. Another extension cable can be made to connect to the alligator clips for connection to electrical busses, wires, etc.

Make sure all power is off to the circuit you want to test. Make your connections, fire up the computer and open Audacity. The program should be set to record two channels, and the sample rate lowered as far as the sound card will allow; this will increase the recording time.

Hit "record" on Audacity, and if necessary, adjust the variable resistor to bring the voltage sample of the left channel down. Walk away and wait for the transients! The computer will "record" until it runs out of disk space. An external hard drive will give you several days of monitoring.

Visual indicator

Although there is no "date stamp," the software displays the running time, so it's pretty easy to trace when the problem occurred based on when you started the recording. When you bring the audio file up for playback, zoom out and any differences are really apparent. Once you've identified a disturbance, zoom in on the fault to identify the anomaly.

Dave's application was to find out why his transmitter site main breaker was tripping, and starting the generator. He couldn't tell if the transmitter was causing the breaker trip, or if transients were causing the transmitter to do something that caused it to trip.

Fig. 2 is a capture of one of the breaker trip events. The top trace is the voltage, the bottom trace is the current. It's obvious the voltage is steady and suddenly drops to zero. The voltage comes back when the generator trips on.

The current is another story. It stays steady at 0.1 (Dave's amprobe reads 100A as 0.1). It then jumps to 0.8, which converts to about 800A — much more than the 400A breaker. Later, you can see the current slowly rise as the transmitter comes back up to power.

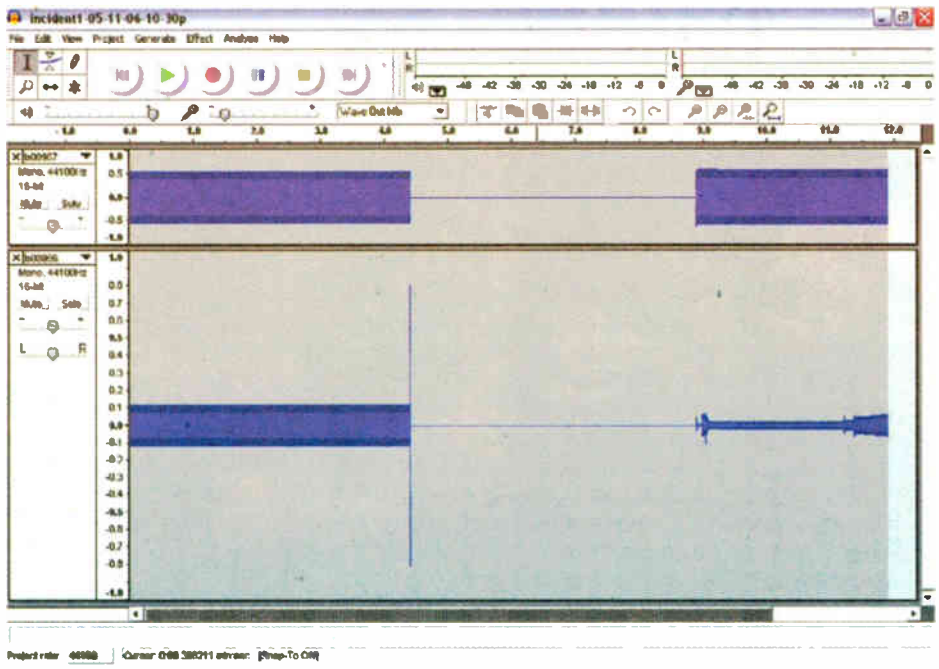

Fig. 2: AC events stand out when playing back the power 'recording.'

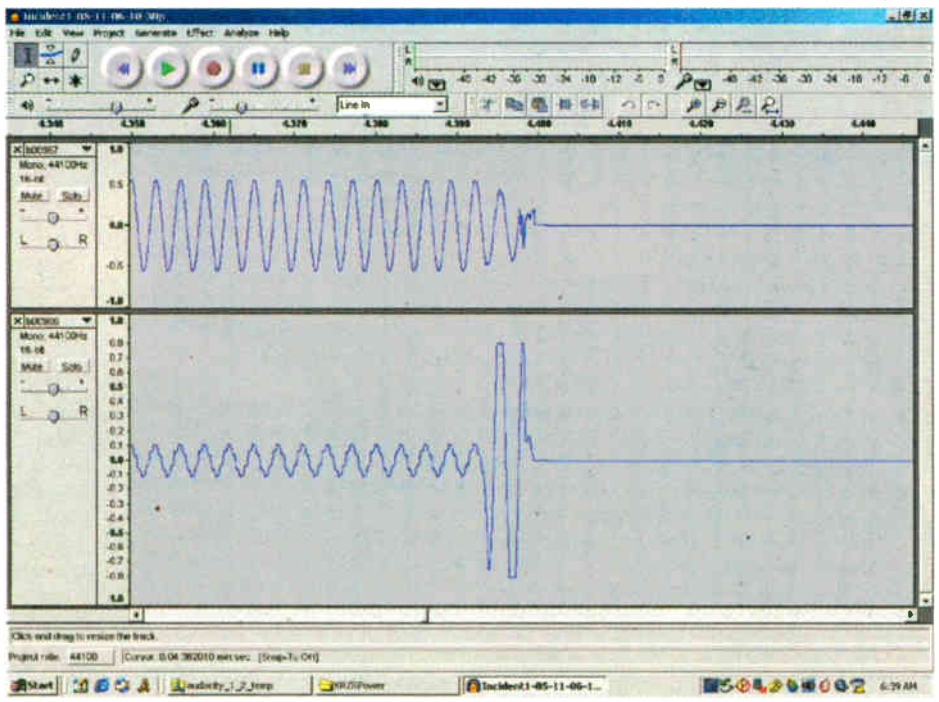

Fig. 3: Zoom in for precise identification of a fault.

One of the benefits of using audio software for this is that you can zoom into the event. You're also not getting an RMS reading, you're actually recording the voltage swing above and below the zero line. Dave set his sample rate at 8 kHz, so he was getting a voltage reading 8,000 times a second. Fig. 3 shows an expanded view of the event.

Thanks, Dave, for a unique application to solve a problem we've all experienced at one time or another.

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

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

NEWS WATCH

MEXICAN HD-R: Uniradio's XHTY(FM) is using a Nautel HD Radio transmitter, and Nautel said it was Mexico's first licensed FM HD Radio broadcaster. "La Invasora" serves northern Mexico but is also big in the metro San Diego area. Separately, Broadcast Electronics said XEEZ(AM), Caborca, Sonora adapted a BE system to convert to HD Radio, one of the first AM stations in Mexico to broadcast with HD Radio technology since regulators began authorizing digital stations within about 200 miles of the U.S. border.

WORLDSPACE: STMicroelectronics will develop, make and distribute chips for European Satellite Digital Radio receivers for WorldSpace. We've reported WorldSpace plans Italian and Middle East service with 40 to 50 channels of commercial-free programming, beginning next year in Italy. Traffic, navigation and music downloads from the satellite are also part of its plan.

EURO-ASIA DAB: Frontier Silicon is developing a digital radio receiver module to work with all Eureka-147-based standards including DAB, DAB+ and DMB-Audio. The company said the unified digital radio module will only need a power supply, display, keypad, audio amplifier and speakers to complete a radio. Frontier Silicon will start sampling to manufacturers in the third quarter and be available for volume production by the end of 2008.

HD-R & SAT RAD: Pioneer and Ibiquity are turning up the intensity in a dispute over whether HD Radio receive capability should be in all new satellite radio tuners. Neither company stated a public position over whether the FCC should approve a satellite merger; but they differ about conditions that should required should the deal be approved. Ibiquity support mandated HD Radios in sat rad tuners; it worries that a combined satcaster would have more clout to block HD-R from automobiles and the retail chain in general. Pioneer's position has been that mandating HD-R in new sat rad tuners restricts features and raises costs.

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Tangent Quattro Is at Home on My Desk

WiFi Radio With 'Distinctive Danish Styling' Lets You Search By Location and Genre

by James Careless

As the *RadioNet* columnist for the international edition of Radio World, I have been reviewing Internet radios for many years.

However, the Tangent Quattro Internet Radio is the first such receiver to be more than a temporary fixture on my desktop. In fact, I now rely almost exclusively on the Quattro for my workday radio listening, to the neglect of my wonderful Boston Acoustics Receptor AM/FM radio.

If you are looking for an Internet radio that is more than a network-dropping, tinny sounding toy, give the following a read.

The basics

The Tangent Quattro is made by Tangent Audio, the Danish company that also makes quality loudspeakers and mini Hi-Fi systems (*www.tangent-audio.com*). It is called the Quattro because this unit is the fourth offered in Tangent's five-receiver lineup.

Aesthetically, the Quattro is housed tastefully in a curved-corner rectangular box; it's about the size of a six-pack of beer, but a little shorter. It is available in white, black, high gloss red and walnut. I have the walnut model with its grey front panel, and grey top-mounted 3 inch, full-range speaker.

The front panel resembles a standard AM/FM late-model receiver. In the upper center is a two-line, backlit LCD display. The top row shows tuning information; the bottom row indicates the speed and streaming format of your Internet connection.

Courtesy C. Crane Company Inc.

The large silver knob on the left controls volume, while the right knob is used for tuning. Below this are two rows, with five buttons each. They are used for presets (five), to go back and forth when selecting stations, to access MP3s from any connected PC and to set the Quattro's clock radio, among other things.

On the back of the Quattro is a jack for the 12V power supply (included), Line Out, Headset and Aux In. All three audio connectors are standard female mini jacks.

Setup

Assuming that you have a WiFi network with a Web connection, the Tangent Quattro is relatively easy to set up.

Its onscreen menu walks you through the steps for connecting to the WiFi network. If you have security enabled, the Quattro lets you use the tuning knob and an onscreen button to input the right encryption key. This sounds complicated, but I found it faster and easier than sending text messages from a cell phone.

Once the Quattro has connected to the Web, it goes to Reciva.com, which provides the thousands of station addresses that the Quattro can tune.

After the latest station information is downloaded, you can start to surf the Internet for stations.

To do so, you use a combination of the tuning dial and the Quattro's Select key, which is located just under the knob. You start by telling the receiver whether to search by Station or Genre, then drill down to choose by other criteria such as format ('60s, Classic Rock, News and so forth) or location. You can even use these two in combination: first by selecting a specific country, then the format of station you want to hear from there.

Once you have found the station you want — say Beethoven Radio, under Classical — you press the Select button again, and the Quattro connects to it. If you don't like what is on, you just push the Back button, and it returns you to your last menu. If you really like what is playing, you can assign the station to one of five preset buttons, for quick recall later on.

You can also tune to MP3s stored on your computer, as long as it is on the same network, and play them through the Quattro.

Performance

There are two simple reasons the Tangent Quattro has become my preferred listening source at work.

First, the audio streams almost never drop out; they are nearly as reliable as the signals from off-air FM radio stations.

Second, the audio quality from the top-mounted speaker is very good. Meanwhile, when I plug my high-end Logitech computer speakers into the Quattro's headset jack, the audio quality is even better.

Still, as with any form of technology, there are things that could be improved on this unit.

First and foremost is stereo, or rather the lack of it. Many Internet radio stations stream stereo signals. It seems silly that the Quattro is not equipped to play them back in full.

Second, the text-only LCD display is hard to read from an angle, which is the case when it is sitting on a desktop well below my eye level.

Third, the tuning process, although simple, is not really intuitive. It is based on a computer "click back and forth" way of doing things, rather than a traditional radio interface.

Also, this receiver would benefit from separate Bass and Treble functions, or indeed any kind of tone modification control at all.

Finally, a remote control would be a really nice touch.

Its onscreen menu walks you through the steps for connecting to the WiFi network.

But the Tangent Quattro is a remarkable Internet radio. In fact, it is a remarkable *radio*, period. Though sharing my office Internet connection, it never seems to slow down my desktop computer on the Web.

Meanwhile, its stability in finding and holding specific audio streams is impressive. I tell myself that it's a fluke; after all, my PC is using the same broadband connection. So why do I have audio dropout problems when I tune into Beethoven Radio on my PC, and almost never on my Quattro?

Whatever the case, one thing is certain: The Tangent Quattro is a tabletop Internet radio that has earned its place on my desktop. You can find it online at *www.ccrane.com* for $349.95, and decide if it deserves a spot on yours too. Further information is also at *www.tangent-audio.com.*

C. Crane owner Bob Crane told us: "By the time you read this article, the new model will be out with an Ethernet jack on the back for direct connection to a router. Also the FM band is included, and an improved WiFi antenna is promised too."

A Tangent official told RW the MKII version is expected to retail for $399.95.

James Careless is a long-time contributor to Radio World.

Write to RW

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

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When Evolution Just Isn't Enough

With No Meteor on the Radar, Is Radio Sinking Slowly Into the Swamp?

The Big Picture

Photo: Gary Hayes, BBC

by Skip Pizzi

From one perspective, there is great elegance to the IBOC scheme for digital radio.

It allows radio stations and consumers to convert to digital technology at their own respective and preferred pace. It brings new benefits without much sacrifice in the legacy environment (OK, for FM, at least).

Overall, this is a much less stressful transition than the more regulated, mandatory digital transition that the television industries in the United States and a few other countries are undergoing. Which is a good thing for radio, right?

Maybe not. The IBOC transition is evolutionary in every sense of the word. This implies that it could take geologic epochs of time to elapse before it concludes. And this may be just too slow for the species to survive.

Intelligent design?

The IBOC transition may actually be too elegant for its own good.

The fact that there is no real urgency other than market forces reduces the power of its engine, especially when those market forces are so paltry.

When it comes to digital transitions, IBOC really *is* your father's Oldsmobile. The ride is so smooth that you may not even feel like you're moving — and maybe (from the whole industry's perspective) that's because you're not.

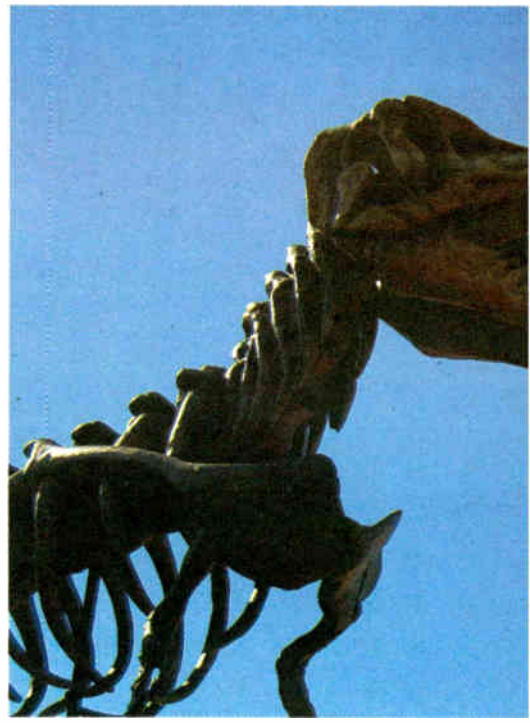
No one likes forced change, but a little temporary pain generally goes a long way toward permanent improvement. Without a forced transition, it's highly unlikely that DTV would be at its current penetration level in the U.S.

The fact that FM analog radio is "good enough" for most consumers doesn't help, either. HDTV is so obviously better than NTSC video that it has helped drive consumers to spring for new, large screens as a part of the transition. New flat-screen form factors have helped increase the spouse-acceptance factor, as well.

Unfortunately, no such similar accelerants are evident in the IBOC world.

The inertia-busting deadlines that the FCC set all along the path for the DTV transition have ushered it along quite nicely. These will culminate with the mother of all deadlines next Feb. 17, when an entire broadcast infrastructure will be shut down overnight.

In evolutionary terms, this is like knowing exactly when the next big meteor will hit. Meanwhile, radio during this time has been basking in its warm, wet



planet, with lots of food and most of the predators keeping their distance. Not exactly the ingredients for a robust natural selection process.

In other words, stasis rules in radio, and with no meteor on the radar, it may not even notice its world sinking slowly into the swamp.

The baby steps of the U.S. digital radio transition keep on coming, as well.

For example, who knew until recently that the 1 percent IBOC solution was just HD Radio v1.0, and that v2.0 might run at 10 times higher power? That's a substantial incremental ticket, and although it might help, it's still not going to provide an HDTV-like perceived differential to consumers (although it might cost proportionally that much to implement for broadcasters).

Monkey trial

Classic information theory tells us that it's hard to judge the rate of change that a process is truly undergoing when you're in the midst of it. Slope cannot be calculated instantaneously, but only differentially.

We also have no idea how long the IBOC transition will take overall, so there is no way to know where we are in the process. Is this still IBOC's infancy, or are we already past puberty and settling into adulthood? (Is the 10 dB power increase a midlife crisis?)

The good news is that broadcasters have generally done their part (again, at least on the FM side), with what appears to be something close to a critical mass already operating in IBOC hybrid mode in the major radio markets. The bad news is that consumers have not yet responded in kind — not even close.

How long a lag should broadcasters expect?

Part of this could be due to simple chicken and egg problems, where consumers wait for broadcasters to offer new service, and broadcasters wait for a big enough audience before launching those services.

This is made worse when a piecemeal rollout such as IBOC's is involved, since some stations and markets will be ahead of others, and consumers cannot make a uniform assessment of value (as they might with satellite radio, for example, where all new services are available at the same time everywhere).

Another component that suffers from such languorous and fragmented uptake is promotion, where a slow burn toward increased consumer penetration is difficult to support. Such a long-term, continuous campaign is perhaps the hardest type of promotional exercise to pull off successfully.

This is why most product launches are marketed with a short-term blitz, a tactic that is greatly preferred (and its effects more easily measurable) by marketers.

Stirring the primordial soup

There are ways to get IBOC receivers into consumers' hands in more stealthy fashion than a pure sale, of course.

Making IBOC radios standard equipment in cars is the most obvious method, which is starting to happen, but other types of receivers are important, too. So far, the portable market has not yet emerged (due to both technical and cost obstacles, both of which will hopefully be removed or reduced soon).

Meanwhile, an attempt to add an IBOC-reception requirement to new satellite radios as a condition of that industry's proposed merger has apparently failed at the FCC.

One other positive aspect of the IBOC conversion, which we've discussed here before, is its element of distributed risk. Rather than one big pool of capital being required up front, each station bears a proportional cost of the conversion, on its own terms (with several, flexible technical approaches to choose from) and according to its own funding schedule.

Eventually, however, if the format continues to languish among consumers, broadcasters could begin to wonder in hindsight what else they could have done with the money.

This issue may now surface sooner rather than later: Consider the discussions if broadcasters have to ask their funders for a larger amount than previously thought for IBOC conversion (or, at stations that have already converted, seek a second round of funding) for increased digital power.

This could force stations to look hard at what kind of return the existing investments have already paid (at their own stations and elsewhere), which absent this power-increase premise, they might be willing to avoid examining for a while longer to let the market mature.

The comfortable evolutionary process that the IBOC digital radio transition allows might have made sense when it was first conceived, but the media world has become a far more competitive environment since then. This is no place to use a transition process designed for survival of the fattest.

Skip Pizzi is contributing editor of Radio World.

Consider the discussions if broadcasters have to ask their funders for a larger amount than previously thought for IBOC conversion — or seek a second round of funding — for increased digital power.

RADIO IT MANAGEMENT

Thin Client, Happy Engineer

The Linux Terminal Server Project Is the Answer to One Radio IT Manager's Funk

by Todd Dixon

Moore's law is pretty hard on the radio industry. Just about the time that we get acquainted with the speed at which the fastest hardware moves, it'll be dwarfed by the newest piece of hardware in both speed and capability.

Such was the case here in Birmingham, Ala., on the weekend that Hurricane Ivan came blowing through in 2004 and a NexGen installer was replacing our two old HP file servers with two new Dell PowerEdge File servers.

Sure, the HPs were boat anchors (each weighed about 75 pounds), but they had served a valuable purpose (and had almost 400 gigabytes of SCSI hard drive space, for crying out loud!).

Those servers made the move with us to our new studio complex, and when I would see them in storage, I had to admit that I would get moist-eyed and enter a self-imposed technical funk. I would often lament to Chief Engineer Stephen Poole about those servers and would vow to restore them to pre-PowerEdge glory someday.

At the same time, trickle-down computing had found a home for our Compaq Prosignia-era desktop units with Intel Pentium II Celerons and Windows 98 installed in our air studios and production rooms.

Since the Internet has become a mainstay for talent use in on-air and production facilities, I was spending time tending to viruses (Windows 98 is a secure OS isn't it?), trying to find software that would be usable and would load before Christmas, and accumulating a bone yard of computers that was filling precious limited storage space.

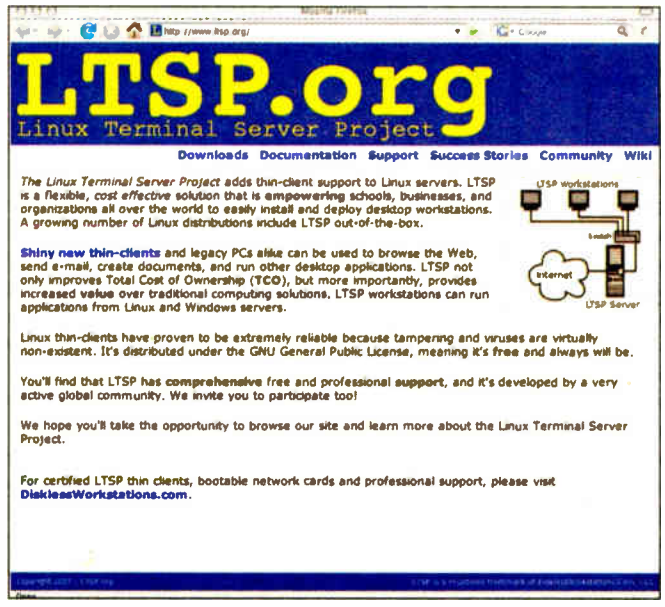
Not to mention that there was simply no room in our budget to justify new computers that would be used almost exclusively for Internet activities.

A couple of months ago, I was trying to get to the end of the Internet and stumbled upon the Linux Terminal Server Project Web site *(www.ltsp.org)*.

K12LTSP

LTSP was the answer to my problems. It had all of the components needed for success: the HP servers could contain Internet, office, graphic, audio applications and user documents and serve them out in a speedy manner to any number of the Compaq Prosignias sans hard drives (i.e., as "thin clients") over a network.

The basic arrangement is such that a thin client boots a ROM image for a given network card chipset (found at *www.rom-o-matic.net*) off of a floppy disk or uses a PXE ROM-enabled network card. It then receives an IP address from the terminal server and, once the connection is established, the terminal server can send any amount of data traffic between itself and the thin client and back.



The Linux Terminal Server Project adds thin-client support to Linux servers.

I settled on a complete package called K12LTSP (*http://k12ltsp.org/*) that is based on Fedora Core 6. Fedora is a free, open source distribution of Linux.

As the name implies, K12LTSP has a strong emphasis toward creating school computer labs with Internet, word processing, graphic and audio programs and kindergarten through 12th grade curriculum.

Schools can save money by not going out to purchase the fastest computers — they use their older hardware (Pentium II class w/128 MB RAM) for their thin clients. Also, software licensing in Linux is not much of an issue as you can change it, use it or distribute it in any way that you please.

The real strength of LTSP is in customization.

For radio, there are several advantages to having a thin client in the studio.

Quiet and quick

For radio, there are several advantages to having a thin client in the studio.

The power usage on these machines is low, the CPU is not number-crunching the hard drive because there isn't one, and most processors of that era are heat-sinked with no fan. The result? Quiet.

The other result: fast. Easily, the older machines were 1-1/2 to 2 times faster than they had been previously using the same programs.

The CPU now only processes mouse clicks, keyboard strokes and video information given to it by the server over the LAN. We plan on connecting about eight of these thin clients to one terminal server, but we could connect more.

By the way, any devices (sound cards, CD-ROMs and USB) on the thin clients will work as they did before! Overall, less maintenance and expense.

The terminal server saves time as well. You need only to upgrade the software on the server for all of the clients to enjoy the update, and since it is Linux-based, I'm not chasing viruses anymore.

One of the common complaints against Linux is the lack of so-called "non-free" software (i.e. Acrobat reader, Java, flash player and media codecs). While it is easy to add these things to any Linux system, I was surprised to see that K12LTSP included self-installing links for everything except the media codecs.

One of your must-haves will be a second network card for the terminal server. The first is hooked up to your regular LAN (Internet/office) and the other is connected to the LAN that all of your thin clients will live on.

I'm not going to lie to you. There is a learning curve to feeling comfortable with Linux. But even if you're a Windows guru who is not setting up an LTSP server with thin clients, smart engineers and Google are your best friends. Most of the problems that you'll encounter have already been handled by others and detailed instructions have been left behind. Setting LTSP up is no exception.

Now you'll have to excuse me while I blow my nose, wipe my tears away and allow my self-imposed technical funk to leave the building!

Todd Dixon, CBNT, is assistant engineer for Crawford Broadcasting in Birmingham, Ala. This information appeared in the company's engineering newsletter The Local Oscillator.

Alert FM

▶ Continued from page 5

percent of the cell phones in this country are equipped with FM chips. More than 50 handset models on the market have the FM radio chips, according to GSS.

A recent NAB advocacy group study supports rapid adoption of FM in cell phones and urges broadcasters to move quickly to convince cell manufacturers of the benefits of producing FM-capable cell phones. Representatives from Emmis and the National Association of Broadcasters met recently with FCC staffers from the chairman's office and the FCC's Public Safety and Homeland Security Bureau about activating FM chips in cellphones, according to a June 17 filing.

The NAB said it's not working directly with GSS but that it's monitoring the progress the company is making on using FM radio as an alerting platform for cellular phones.

The company's goals of having Alert FM succeed depend a great deal on the ability to reach more than just those people who purchase the special Alert FM receivers, Straeb said.

The addition of an FM chip in cellular phones has no impact on size and little impact on price of the handset, Straeb said.

"The chips would add between 80 cents and $1 to the cost of a cellular phone if produced in large quantities. It's really a competitive issue for the handset makers and another feature they can offer customers if they adopt the technology."

Handset antenna requirements and battery life are two of several issues being addressed, Straeb said.

If the cellular industry adopts the FM receiver platform, a small plug-in download from GSS, which is license free, would be required, Straeb said.

Rollout

The company has rolled out Alert FM in 12 states and on more than 200 stations.

Recent launches include parts of South Florida. In Broward and Miami-Dade County, residents have access to Alert FM. The initial south Florida radio stations participating in Alert FM are WRTO(FM), WLRN(FM) and WAMR(FM).

GSS has "distribution over a large geographical area in south Florida, giving emergency managers the potential to reach more than 4 million citizens in seconds," according to a GSS press release.

FM chips found in some cellular handsets and other mobile devices can be activated to receive the alerts via RBDS, GSS officials said.

George Mason University, located in northern Virginia, announced in March that it would use Alert FM for alerting resident advisors and school directors on campus. The school has more than 30,000 students and faculty.

Alert FM also has been implemented in Phoenix as well as Memphis, Tenn., according to the company.

Global Security Systems' Alert FM also is the "exclusive provider of the alert notification contact path" for America's Emergency Network, a communications technology company whose system sends video feeds via satellite from Emergency Operations Centers to emergency responders and the media, Straeb said.

AEN is a wholly owned subsidiary of Brampton Crest International, which recently named Robert Adams its chairman of the board.

Adams is president and chief executive officer of Global Security Systems. He and Michael Moreno founded GSS, a privately owned company, in 2003.

AEN in June completed a successful test of its video streaming emergency communication system during Florida's annual hurricane exercise.

Former NAB President/CEO Eddie Fritts, who now heads up the lobbying firm The Fritts Group, promotes the Alert FM system to the public and other groups, Straeb said.

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Can a radio console be over-engineered?

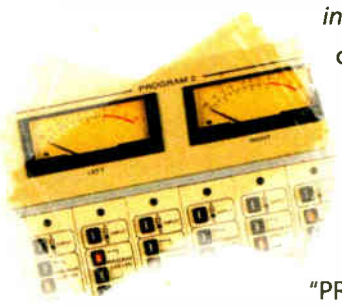
(Only if you think "good enough" really is good enough.)

"OCD" redefined

Building great consoles is more than punching holes in sheet metal and stuffing a few switches in them. Building a great console takes time, brain-power and determination. That's why we've hired brilliant engineers who are certified "OCD": **Obsessive Console Designers,** driven to create the most useful, powerful, hardest-working consoles in the world.

How It began

"20-odd years ago," says Axia President Michael "Catfish" Dosch, "I was designing custom consoles for recording studios. Somebody at **PR&E** – it was still called **Pacific Recorders** then – liked what I was doing and invited me to move there. Work with Jack Williams, the guy who practically *invented* the modern radio console? I jumped at the chance; BMX consoles were ultra-reliable, sounded great, and nearly indestructible!



"PR&E was a dream job. Jack taught me how to design consoles without compromise — how to **over-engineer** them. It's great to see, 15 or 20 years later, that many of the boards I designed are still on the air.

"By the late 1990s, computers and routing switchers were becoming an essential part of the broadcast studio, and I'd been thinking about how useful it would be to combine console, router, and computer network. I shared some of my ideas with Steve Church, who'd introduced digital phone hybrids and ISDN codecs to radio. He thought the same way I did about computers in radio studios, and we decided to work together."

A new kind of console

In 2003, Axia was launched to make digital consoles, but with a twist: Axia consoles would be integrated with the routing switcher, and **networked** to share resources and capabilities throughout the studio complex. This intelligent network of studio devices lets Axia build consoles that are **more powerful** and easier to use than ever.

Our team of engineers blended the best ideas from old-school analog consoles with innovative new technology to produce **bullet-proof boards** that can actually make shows run smoother and sound better.

First Axia console prototype. Nice test stand, Catfish.

There's a reason these board-ops are smiling. Axia consoles are in more than 1000 studios worldwide.

And we invented a way to network studios, consoles and audio equipment using Ethernet. It's called **Livewire™**, and it's now an industry standard. Livewire carries hundreds of channels of real-time, uncompressed audio plus synchronized control logic and program-associated data on just one skinny CAT-6 cable.

Lots of well-known broadcast software and hardware companies (over two dozen already) now make products that work directly with Livewire. Thanks to this scalable network technology, **integrated router control** is a standard feature of every Element. Any source in any studio can be loaded on any fader with no need for add-on panels.

And Livewire lets you bring computer audio into the air chain without going through multiple A/D/A conversions. Our **IP-Audio Driver** lets you connect computers directly to the network without any intermediate I/O — all that's needed is a CAT-5 cable and your computer's Ethernet port.

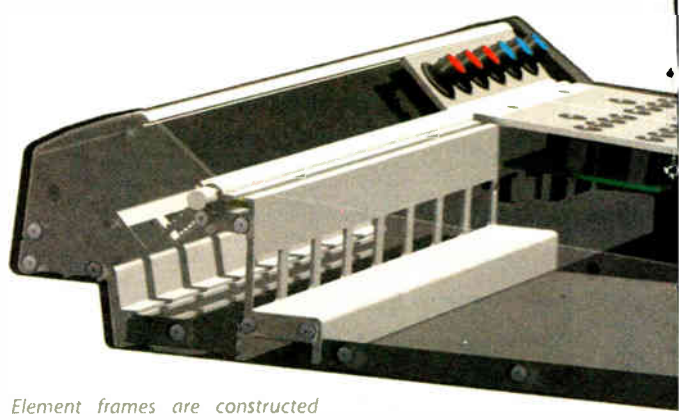
Feature packed

Board-ops told us they wanted a console that's **powerful, yet easy to use.** So we designed Element to be user-friendly, yet still have all the power of a full-on production board.

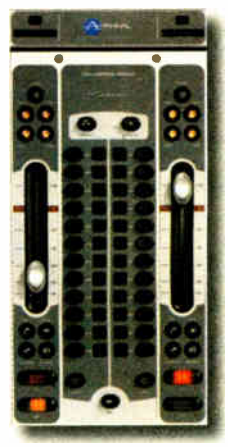
For example, Element Show Profiles can **recall each operator's favorite settings** with the push of a button — audio sources, fader assignments, monitor settings and more. And each jock's Show Profile contains personalized **Mic Processing** and **Voice EQ** settings that load every time they're on the air (so the midday guy will stop badgering you for "just a little more low end"). There's even a "panic button": one key-press returns a Show Profile to its default state instantly. (No more 3 A.M. "Help!" calls.)

Did we say "mic processing"? You bet. Every voice channel gets **studio-grade compression, de-essing and expansion** from the processing experts at Omnia, plus three-band parametric EQ to sweeten the deal. There's even built-in **headphone processing** so you don't have to waste money building a separate side-chain just for the studio cans.

Jocks have complained for years that making a mix-minus is too hard — so Element **constructs mix-minuses automatically.** Plus, mix-minus settings are saved for each audio source, so that sources, backfeed and machine logic all load at once. And every fader has a "Talkback" key to **communicate with phone callers,** remote talent or other studios using the console mic.



Element frames are constructed from custom aluminum extrusions for maximum rigidity. Module face plates and console side panels are machined from thick plate aluminum. Even the hand rest is a beefy extrusion. With all this heavy metal, even that ham-handed overnight jock won't be able to dent it.



Speaking of phones, board-ops have enough distractions without having to reach for an outboard phone control panel. Element has **hybrid controls with dedicated faders** for Telos talkshow systems; there's even a **dial pad** so jocks can dial, pick up, screen and drop calls without ever diverting their attention from the console.

Nearly every air talent has accidentally changed a fader's audio source while it was on-the-air. To prevent that error, **Element "queues" source changes**: the operator must turn the fader off before the next assigned source "takes".

The radio console, redefined.

Element was designed to fulfill either a **production or on-air** role, with amazingly powerful features waiting just beneath the intuitive surface. For instance, Element can mix in 5.1 Surround as well as stereo. That's standard; **nothing extra to buy** (except more speakers). There are four stereo Aux Sends and two Aux Returns, so production guys can use their favorite outboard FX boxes. Great for **custom IFB feeds**, too.

Clear the junk out of your studio. Element has 8 submixers built in.

Got a PA mixer tucked away in a studio corner to mix mics for live performers, talk shows and such? Element has **8 Virtual Mixers** — no outboard gear needed. And the Virtual Mixers emulate ACU-1s, allowing tight integration with automation and satellite systems.

You can **administer Element remotely**, from home, the airport — wherever there's network access. A password-protected web server lets you examine the state of the console, see what's on the air and even fix operator mistakes, without ever leaving the comfort of that new Aeron™ desk chair you (ahem) "requisitioned" from the Sales department.

Small VU meters mounted at desk level are hard to read, so we re-invented the traditional meter bridge. Element's **big meters** are presented on an easy-to-read computer monitor along with large analog and digital clocks, event and countdown timers, and tallies that light when mics are open, delay is active, or during phone calls. You can even customize the display by adding your station's logo.

Beneath the surface

There's more to building a great board than just features. **Consoles have to be rugged,** to perform flawlessly 24/7, 365 days-a-year, for years at a time. So when it came time to choose the components that would go into Element, we literally scoured the globe for the absolute best parts — parts that would take the torture that jocks dish out on a daily basis.

First, Element is fabricated from thick, **machined aluminum extrusions** for rigidity and RF immunity. The result: a board that will stand up to nearly anything.

With so many devices in the studio these days, the last thing anyone needs is gear with a noisy cooling fan. That's why Element's **power-supply is fanless**, for perfectly silent in-studio operation.

Element modules are **hot-swappable**, of course, and quickly removable. They connect to the frame via CAT-5, so pulling one is as simple as removing two screws and unplugging an RJ — no motherboard or edge connectors here.

Faders take massive abuse. The ones used in other consoles have a big slot on top that sucks in dirt, crumbs and liquid like the government sucks in taxes. By contrast, our silky-smooth conductive-plastic faders actuate from the side, so **grunge can't get in**. And our rotary controls are high-end optical encoders, rated for more than **five million rotations**. No wipers to clean or wear out — they'll last so long, they'll outlive your mother-in-law (and that's saying something).

Element's **avionics-grade switches** are cut from the same cloth. Our design team was so obsessed with finding the perfect long-life components that they actually built a mechanical "finger" to test switches! Some supposedly "long life" switches failed after just 100,000 activations; when they found the switches used in Element, they shut off the machine after **2 million operations** and declared a winner. (The losers got all-expense-paid vacations to the landfill.)

Individual components are **easy to service**, too. Faders come out after removing just two screws. Switches and rotary volume controls are likewise easy to access. And all lamps are LEDs, so you'll likely never need to replace them.

Engineers have said for years that console finishes don't stand up to day-to-day use. Silk-screened graphics wear off; plastic overlays last longer, but they crack and chip — especially around switches and fader slots, where fingers can easily get cut on the sharp, splintered edges. We decided that we could do better.

En
Lexan
and printing
where it **can**
And instead of
sticking the Lexan to the top of the module like some folks do, our overlays are **inlaid on the milled aluminum module faces** to keep the edges from cracking and peeling — expensive to make, but worth it. For extra protection, there are **custom bezels** around faders, switches and buttons to guard those edges, too. Element modules will **look great for years.**

By the way, those on/off keys, fader knobs and bezels are our own design, custom-molded to give **positive tactile feedback**. The switch is flush with the bezel, so it's easy to find by touch. But if something gets dropped on it, the bezel keeps the switch from being accidentally activated.

More than just products

Catfish learned something else important from his time at PR&E: "Even the best products are nothing without **great support.**" So Axia employs an amazing network of people to provide the best support possible: Application Engineers with years of experience mapping out radio studios... the most **knowledgeable, friendly** sales people in the biz... Support Engineers who were formerly broadcast engineers. Plus a genius design team, software authors who dream code... one of the **largest R&D teams** in broadcast.

And now Axia has become radio's **first console company to offer 24/7 support**, 365 days a year. Chances are you'll never need that assistance, but if you do, we'll be ready for you. Our 'round-the-clock help line is +1-216-622-0247.

Proudly Over-Engineered

Are Axia consoles over-engineered? **You bet.** If you're looking for a cheap, disposable console, there are plenty out there — but this ain't it. Not everyone appreciates this kind of attention to detail, but if you're one who seeks out and appreciates excellence wherever you may find it... Axia consoles are built **just for you.**

AXIA
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www.AxiaAudio.com

PERSON

When You Had to 'Meet the People'

by Ken Deutsch

In the late 1970s I was hired by the wealthiest man in Toledo, who was interested in building a new radio station in the city.

He purchased two months of my time — for what seemed like a fortune then — because I'd had some experience with the license application maze. My task was to guide him through the process.

At that time, the FCC required that applicants personally visit community leaders and ask them what they felt were the biggest issues facing our city.

Part of what I brought to the table was a list of politicians, church elders, business owners and less prominent people who ran charities and neighborhood organizations.

I had met many of these folks during my programming days at WOHO(AM); we had them on the air for talk shows and PSAs.

Little Kitchen

The gentleman was in his late 50s; his shirt probably cost as much as my automobile. We used his chauffeur-driven town car to drive around Toledo.

We arrived at our first stop, The Little Kitchen for the Poor, in what was then called the ghetto. I had arranged an appointment with the elderly minister who ran the non-profit organization out of a storefront. Its stated mission was to feed destitute people.

A number of church ladies were running around this former grocery store, cooking and serving food to ill-dressed but grateful citizens. I knew the place; several years prior I had volunteered there during the summer.

It was a new and obviously uncomfortable experience for this would-be station owner. The raw mix of human odors was overpowering. He nervously jingled the coins in his pocket as his eyes darted around the room. It was also an environment where much of the skin was dark; whereas I suspect that, prior to that moment, the only black people with whom my benefactor had come into close contact were cooks and porters at his yacht club.

Our next stop was a small church in the north part of the city, where prostitutes roamed freely at night; and even during the day, robberies were common.

The citizens were not happy here. Many bought guns for protection. My client was told by the pastor that the city needed more police, better schools and less lenient courts.

We then met with a migrant labor leader who told us that his constituency's problems included illiteracy and lack of citizenship. Many who worked the tomato fields could not read, open bank accounts or purchase houses for their families.

And we visited a small farm on the outskirts of the city. We stepped gingerly through the mud to the house, where we were greeted warmly. We learned that small farmers were in danger of losing everything because giant farms were forcing them out of business.

Between appointments one day, my wealthy client and I discussed his career. He owned a company inherited from his father; it manufactured spark plugs and had become an international conglomerate. I asked if he ever had trouble getting in to see important people in his travels around the world, and he told me his secret.

"Ken, if I show up at some potentate's office and he won't see me, I just send his secretary back to see him with a very special invitation," he told me.

"It's an envelope containing five $100 bills and a note from me that says, 'Let's talk about making more of these for both of us.' That usually gets his attention."

What a contrast. No special envelopes were needed for our current project. Everyone was happy to see us. But I felt a little like the Ghost of Christmas Past, showing my client more than he wanted to see.

Over our time together, he got a peek into a dusty corner of humanity that I don't think he could have imagined otherwise. He seemed surprised and saddened that citizens in his own town had to make do with 10-year-old shirts, cars with faulty exhausts and homes with broken windows. The mean streets along our path were an alien landscape to a man accustomed to the good life.

Several weeks later we completed our meetings and I prepared the necessary paperwork for the application. Eventually, however, my client gave up his quest to own a station even before submitting it.

Years later, the FCC would relax the requirements so that prospective station owners would never again need to sidestep pig manure or smell the kitchen of a homeless center to sit down with actual people. The application could be prepared by "outside consultants" and the process became a joke, a simple demographic study that an applicant didn't even have to read.

Pig manure notwithstanding, I regret that the commission changed its policy. Though my client never ended up with a broadcast property in his portfolio, I like to think he at least gained some idea of what was going on outside the walls of the country club.

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

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PRODUCT EVALUATION

StudioDrive's Desk Appeal Yields SixMix

Henry Engineering Developed Broadcast-Ready Mini USB Mixer for Radio Station PC Editing

by Ty Ford

You can't say you've run a radio station unless you have had at least one or two Henry Engineering problem-solvers operating somewhere in the plant.

Four years ago the company offered a solution for broadcasters operating in tight spaces with its StudioDrive mixer, a petite model designed to fit in the drive bay of a computer. Sales of the optional desk mount suggested that the StudioDrive increasingly was being used with laptop computers. SixMix is the result of that realization.

The 12 inch by eight inch, six-channel, 10-input mixer was designed for radio station use, including the broadcast studio, newsroom, automation system, remote studio, emergency studio, Internet studio or production studio. It can be operated at 115 or 230 VAC and has a standard IEC power connection.

Industrial look

SixMix is not crammed into a computer bay, so its size, panel layout and features were rethought. The design is decidedly un-sleek and industrial. The bold, primary colors and large knobs almost suggest a child's toy. But looks can be deceiving. There's a *lot* more going on under the hood than you imagine.

SixMix has features you won't find on those PA or small-project studio mixers that are sometimes forced into service: separate busses for air monitor input, cueing, monitor out, program out, record out, mix-minus, guest headphone by way of an RJ for the Henry MultiPhones pod device, a S/PDIF program out and more.

Most connections are on the back except for the 1/4 inch TRS headphones and a convenient unbalanced 1/8 inch TRS on the front for occasional –10 stereo, unbalanced consumer audio devices.

There's also a dual logic, 1/8 inch TRS, +12 VDC mic tally output jack for on-air lights. The first output is configured to turn on tally lights if either mic one or mic two pots are on. The second logic circuit lights up only when mic two is on.

SixMix has a bidirectional USB port (USB 1.1 or higher) that allows you to stream audio to and from a computer. The 16-bit USB codecs operate at 32, 44.1 and 48 kHz. After selecting the proper inputs and outputs on your computer, you can record into the computer and play back from it.

In fact, SixMix also lets you set up automation or other audio playback from a computer through the USB cable to a dedicated 1/8 inch TS S/PDIF connection on the back of the SixMix. This is an isolated output, so you can use the rest of the mixer for other functions.

Pots 1 and 2 are –60 dBu to –40 dBu, 10,000 ohm, balanced, low-Z professional mic inputs. Each mic input has its own +/- 12 dB trim adjustment, cough button and –10 insert jack usable for compression, limiting or other effects (and possibly for direct outs). There is no phantom power. Pots 3-6 have both A and B inputs for either pro or consumer line level.

The A inputs are +4 dBu, 10K ohm, balanced stereo using pairs of 1/4 inch TRS jacks. The B Inputs are –10 dBu, 10K ohm, unbalanced, stereo and use pairs of RCA jacks. The exception is input 6B, which is dedicated to USB return audio from an attached computer. Additional pairs of 1/4 inch TRS jacks are used for stereo air monitor input, –10 dBm stereo monitor out, a 0 dBu mix minus out and +4 dBm stereo program out. The 1/8 inch TRS unbalanced stereo record output level is set to –10 dBu.

The Cue buss feeds its own speaker and also is routed to the –10 dBv output ring of the mix-minus output jack in case you need a beefier cue amp. Cue leakage into the Program buss in down about 70 dB. All channels but Mic 1 can be mixed to the Cue bus by depressing the blue Cue button on that channel's input. Cue is pre-fader and overrides the program buss.

Product Capsule:
Henry Engineering SixMix USB Mixer

Thumbs Up

- ✓ Has the features a broadcast console needs and then some
- ✓ Separate busses for air monitor input, cueing, monitor out, program out, record out, mix-minus
- ✓ Bi-directional USB port

Thumbs Down

- ✓ No phantom power

PRICE: $1,195

CONTACT: *Henry Engineering at (626) 355-3656 or visit* www.henryeng.com.

The Cue speaker is disabled when the main monitors are muted, but Cue can still be heard in the headphones if auto-cue is engaged. The auto-cue feature drops programming levels in the headphones to cue bus send. When you release auto-cue the headphones switch back to main monitor.

The monitor system can be switched to Program or Air. When the Norm/PC button is down, Program/Air is disabled and the monitor receives audio only from a computer attached to the USB bus. Monitor muting for talkback or cueing may be disabled by changing internal jumpers, if desired.

The default input for mix-minus operation is input 3. If only one mic is used, opening up input 2, SixMix internal jumpers can be set to move mix-minus to input 2, thereby freeing up input 3 for other audio inputs.

SixMix also has a talkback circuit for

See SIXMIX, page 26 ▶

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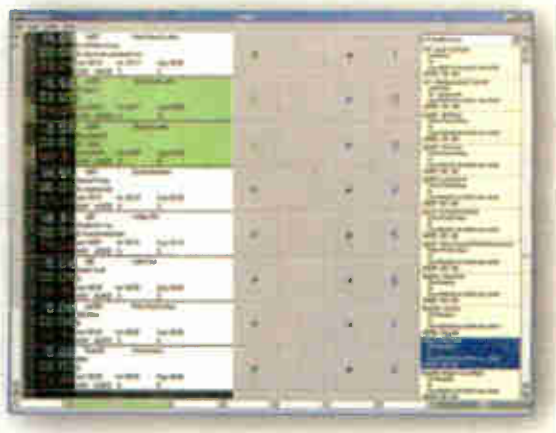

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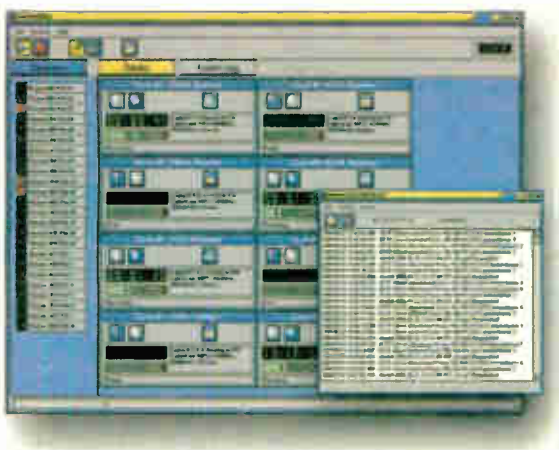

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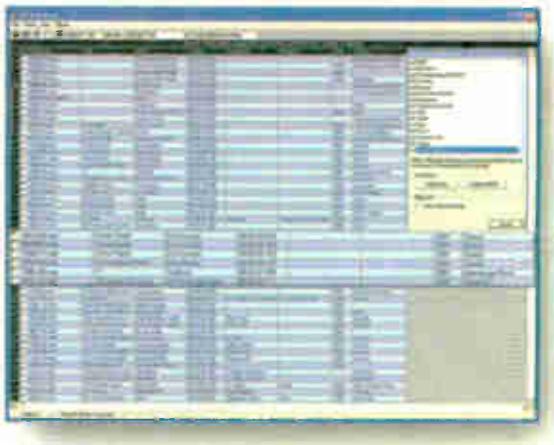

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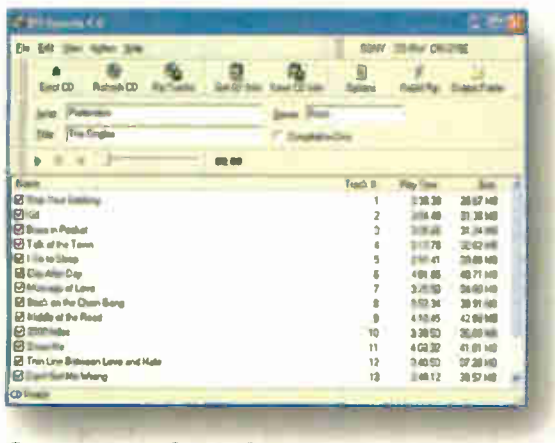

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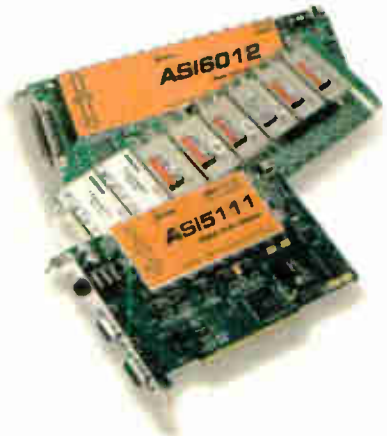

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BSI

TOP STUDIO BUILDOUTS

XM Canada

by Tom Vernon

When XM Canada received the green light from the Canadian government to begin broadcasting, Iain Grant, manager of broadcast operations, used his hybrid computer/radio background to develop the facility design from the on-air talent's standpoint, thinking about optimum workflow and how to create great radio.

This led to some innovations and a bit of thinking out of the box.

"Working with Tyler Everitt of Pippin Technical, a signal flow based on computer networking was developed, and Axia was selected to provide control surfaces and routing," said Grant.

Technical Broadcast Manager Craig James works 'in the vault.'

What evolved is one of the largest Axia installations in North America. XM Canada has two main talk studios, five control surfaces for voice tracks and music mixes, one music production studio and 14 workstations. It produces 13 channels of radio.

A staff of 30 announcers, producers and technicians keeps things humming. Production is done with ProTools and Adobe Audition. Newsroom software is from KLZ.

The project was approved on Sept. 15, 2007, with the expectation that it would be on air in time for the Christmas buying season. Axia pre-programmed the control surfaces before shipping, and Pippin Technical was able to complete installation in about three days.

XM Canada's Toronto-based headquarters are in a renovated bank building, and both of the vaults were preserved. The 10 racks for the TOC are in one of the vaults.

Grant recalled some apprehension that contractors might not be able to cut through the walls to run conduits. "Those fears were unfounded, and we have a functional but tight rack room," he said.

He said much of the magic for a great Axia installation lies in shedding the traditional copper wire model and adopting the networking model. "Once you do that, you're only limited by your imagination."

He said it is relatively easy to access Pathfinder, the software that runs Axia. He uses Visual Basic for his software projects; his most recent effort is an application that makes the meter display from the bridge of a control surface visible on a video monitor in the XM Canada lobby.

Other projects involve writing code to enable Pathfinder to unlock studio doors at 9 a.m., and custom routing for on-air lights and muting. Software panels have been developed to control the Telos Zephyrs and autodial ISDN remotely.

The networking model permits spontaneous and unorthodox applications, said Grant.

"Everything is on RJ-45 connectors, so once we pulled a control surface out of the desk and set it up outside for a live remote," he said. It also enables him to take care of many problems from home, saving many weekend and late night trips to the studio to deal with minor issues.

XM Canada connects with Washington for satellite uplinks and accessing the Dalet music inventory, as well as confidence monitoring. The system uses leased DS3 lines and Harris Intraplex units. Control channels on the Intraplex are used for contact closures and sending PAD data.

XM Canada occupies what had been a bank.

The facility boasts one of the largest Axia installations in North America.

Tom Vernon is a frequent contributor to Radio World.

PRODUCT GUIDE

Neumann TLM 67 Pays Homage to U 67

Neumann says TLM 67 studio mic is a contemporary development of its classic U 67, with a K 67 capsule like the U 67 and a circuit design that reproduces the earlier model's sound without tubes.

The company says the large-diaphragm condenser mic is versatile. Features include switchable directional characteristics (omnidirectional, cardioid and figure-8), selectable 10 dB pre-attenuation and high-pass filter.

A large wire mesh grille encloses the elastically mounted double diaphragm capsule. Directional characteristics can be selected via a switch below the grille. The selected setting is indicated by a symbol shown in a window above the switch.

The letters "TLM" stand for "transformerless microphone." In the TLM 67, an electronic circuit is used rather than a conventional output transformer. Like a transformer, the circuit ensures good common mode rejection, suppressing interference signals that affect the balanced modulation line, according to the company.

The mic can operate at sound pressure levels of up to 105 dB without distortion, and has a dynamic range of 94 dB without the use of the pre-attenuation switch.

The pre-attenuation switch on the back can be used to reduce transmission levels by approximately 10 dB. Neumann says it should be used only when there is a risk of overloading following devices due to high sound pressure levels. Use of the switch does not increase the dynamic range of the mic, but shifts it by 10 dB to higher SPLs.

Additional highlights include its pearl-grey and nickel body; and a three-dimensional metal emblem on the front in honor of company founder Georg Neumann.

For more information, contact Neumann USA at (860) 434-9190 or visit www.neumann.com.

615 Music Provides Promo Music For Broadcasters

Does summertime have you thinking about fun, fresh production tunes for your station? Consider the services of Nashville-based 615 Music.

Founded by President/CEO Randy Wachtler in 1984, 615 Music is a music development, recording, post-production and sound design company with clients that include broadcasters, both radio and television. It has composed and delivered new promotional theme music for clients around the country.

Recently 615 Music composed and produced the new theme song for the Atlanta Braves, "The Braves Play Here," for client Peachtree TV, Turner Broadcasting's local Atlanta TV platform. The song, written by G. Barnhill and Wachtler, promotes the 2008 baseball season and was sung by Warner Bros. Records recording artist James Otto.

For more information, contact 615 Music at (615) 244-6515 or visit www.615music.com.

SixMix

▶ Continued from page 24

Mic 1. If Mic 2 is in a booth, the SixMix operator can cue the booth using the talkback feature. Mic channel 2 can talk on the cue buss back to the main operator and be heard in headphones or on the SixMix cue speaker.

There is no master fader, but know that headroom is 20 dB above 0 dB output, which for SixMix is +4 dB.

In practice

I grabbed an old JK Audio Innkeeper 1r digital hybrid, connected it to the SixMix and plugged the USB cable into my G5 Mac.

After changing the Mac's audio IOs to the SixMix codec, I brought up Mac's Soundtrack Pro and Garage Band and called some friends.

Operation was easy. The line inputs to the SixMix are a pair of balanced 1/4 inch TRS jacks. Because the hybrid output is a single balanced line, I used a splitter cable to bridge both inputs jacks on the SixMix.

USB busses can be noisy and my G5 Mac's is no exception. There was a low-level, high-pitched whine under the audio whenever I pushed the program button of a SixMix mic channel. It increased in volume as I raised gain on the pot.

I switched to my new MacBook and the whine dropped below the self-noise of the Schoeps mic (with external phantom power) that I had plugged into the SixMix mic input. I was in the stone dead quiet of my studio. Had I been in most normal environments, the whine would not have been audible.

I recorded into Garage Band and then played back from the computer through the USB buss to the USB input on the SixMix. No problem.

Although I didn't have the Henry pod device for multiple headphones, I'm giving Henry a "gimme" on that. The SixMix features make it a no-brainer for that one piece of gear you want sitting on the shelf when a console goes down, or for daily operation. The SixMix proves that less is more.

Ty Ford is a frequent contributor to Radio World, and may be reached at www.tyford.com.

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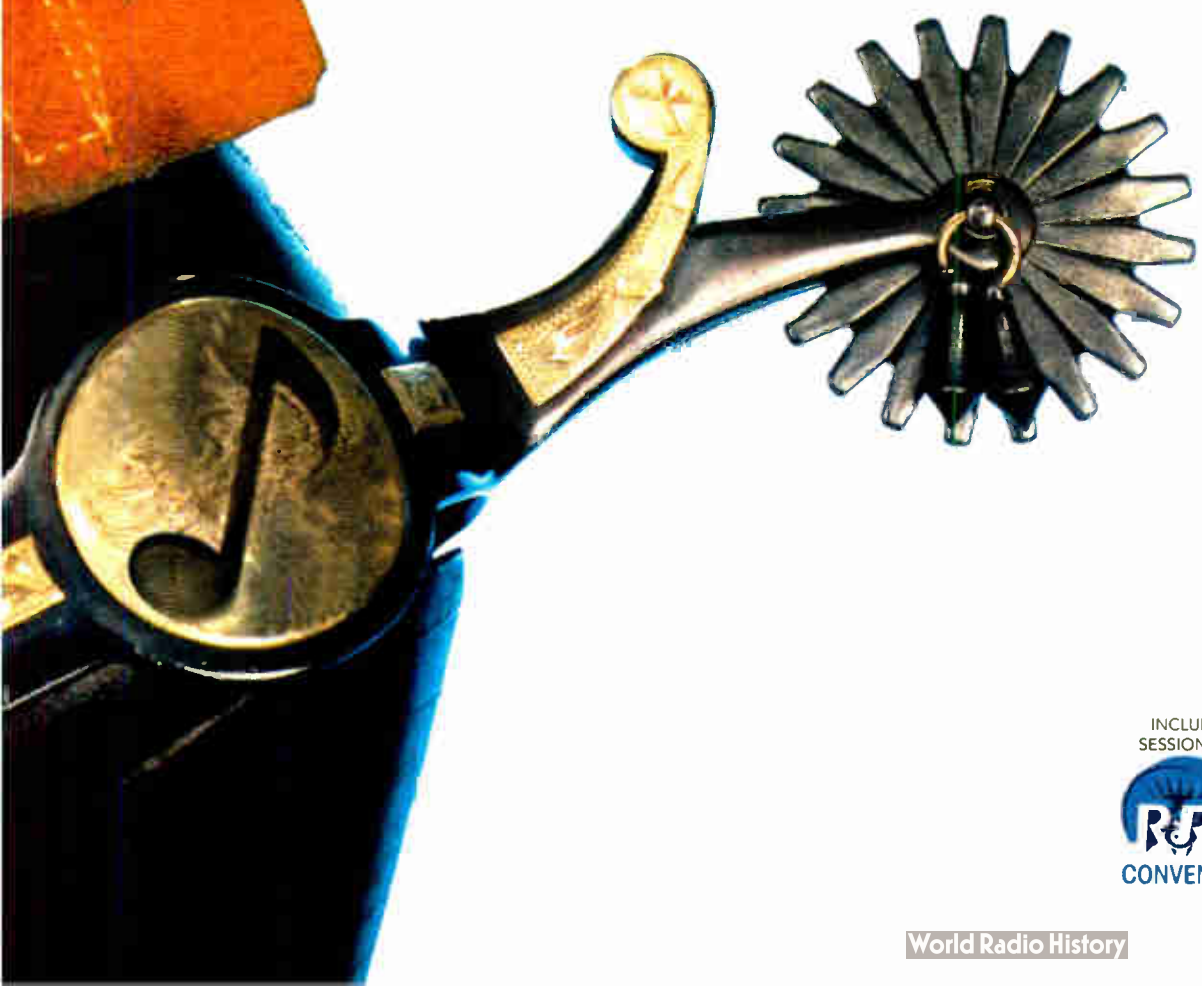

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GM Journal

Radio World — Resource for Business, Programming & Sales — July 16, 2008

Dealing With the Stars
Page 32

Voice 2008 Brings V/O Talent Together

Acting and Marketing Skills Are Both Valued When It Comes to Making a Go of This

by Ken Deutsch

We hear them coming out of our TVs, radios, video games, movie screens and even appliances. They're on the Internet, they're in the air at amusement parks and now, downloaded to cell phones. They can be male, female or some sort of alien combination.

I'm talking about voices, or more properly, the professional actors who create the voices.

"Everybody has a conference. Plumbers, doctors, everyone but us. Now voice-over artists and coaches finally have their own event."

That was the well-modulated voice of Penny Abshire speaking, one of the executive producers of Voice 2008, a conference that will be held at the Hyatt Regency Century Plaza in Los Angeles Aug. 8–11.

She is also a professional voice talent, teacher and coach. Along with James Alburger, she is staging this year's event, the second for the team.

"The purpose is to provide information on performing technique, running the business side and handling auditions," said Alburger, an 11-time regional Emmy winner. "We'll also talk about the newest technology for recording the voice."

"Because many voice artists work alone from their homes with just a microphone and a computer, they can feel isolated," added Abshire. "Part of what we're doing is bringing them together as a community."

Making an impression

And how do aspiring voice actors break through the clutter to connect with producers who have the power to hire them?

"There is the traditional audition method, with the major advertising agencies working through talent agents," said Alburger. "And now there are online services, but these cater mostly to entry-level voice talents and those who are not affiliated with a union such as the American Federation of Television and Radio Artists."

While Voice 2008 is partially sponsored by AFTRA, Jim Alburger and Penny Abshire are not AFTRA members, nor do they encourage or discourage anyone from joining. But Alburger was right about the Internet. It has certainly become a virtual repository for voices.

There are tens of thousands of demos online, so one would think that this is one of the most competitive areas of the entertainment industry.

Penny Abshire and James Alburger

"Actually, you're not competing with anyone else," said Abshire. "You have a voice, a style. And if you match the voice the producer has in his head, you'll get the job."

One man who has "gotten the job" many times is Marc Graue, owner of Marc Graue Voice Over Recording Studios in beautiful downtown Burbank, Calif. His clients include Disney, CBS, HBO and many other Hollywood producers. As a voice actor himself, he knows how to satisfy the client.

"It's more than just having a great voice," he said. "It's about acting chops.

"The key is, when you audition, give the producer exactly what his description of the part calls for the first time. Let's say it's a 30-year-old yuppie drinking tea in Boston or whatever. So you try to come close to what the guy wants. Then afterwards, if you have different idea, ask if you can try one more take, and that time do it the way your heart tells you to do it."

Graue will be one of the speakers at Voice 2008, along with Bob Bergen, better known for the last 18 years as the voice of Porky Pig.

"I wanted to be Porky since I was 5 years old. We moved to Los Angeles when I was 14 and I started studying voice-over," Bergen said. "I got my first agent and my first cartoon right out of high school. Then later, Warner Bros. was looking for someone to do some new voices, I auditioned and got the job."

Was it hard replacing legendary voice talent Mel Blanc?

"No one will replace him," said Bergen. "My goal is to uphold the integrity of the character."

Bergen has had a lot of success but admits that the business presents challenges.

"Like any actor, the thought is always, 'Where is my next job going to be?' The Internet has allowed people in Cincinnati to compete for the same stuff I'm reading for here in Los Angeles. The numbers have skyrocketed, as far as the competition goes. It's hard for people to make a living, but I've been doing it for 25 years."

Bergen will participate in two seminars at Voice 2008. One will be a panel discussion with casting directors and agents. The other will be a solo session in which he'll talk about creating characters and the art of marketing.

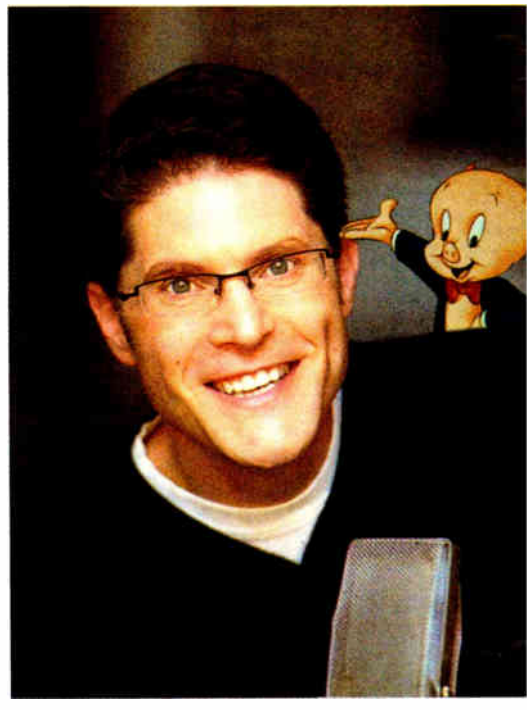
It's the voice, but ...

Alburger named three areas in which voice actors must excel.

"There are the performing skills, mastery of technology and marketing ability," he said. "We recommend that attendees also seek out one of the approximately 200 voice coaches around the country and take some classes. Another idea is to get involved in online discussion boards."

Like the radio industry, the voice-over biz has undergone many changes over the years.

Marc Graue



Bob Bergen inherited the job of voicing a particularly well-known character.

"The biggest one is the migration from recording studios to home studios," said Alburger. "The cost of the technology has plummeted. In today's world, basic equipment, not including the computer, is only about $300."

"We use an inexpensive mic that sounds great," said Abshire. "It's the Marshall MXL-990, which is made in China and sells for under $100. It would be wonderful to use expensive mics like the Neumann U-87, but we show people how to follow their dreams without the big start-up cost."

"My favorite studio software is Vegas Video by Sony," said Alburger. "It's designed for video production but I use it primarily because of the audio portion, which is incredibly versatile."

One might assume that the number of new voice actors would approximately

Sites for the Aspiring V/O Artist

Voices.com	*www.voices.com*
Voice 123	*www.voice123.com*
Voice-Over Bulletin Board	*www.vo-bb.com*
Studio Center	*www.studiocenter.com*
Voice Coaches	*www.voicecoaches.com*
Discussion Board	*www.voice-overs.com/forum/newbie-board*
Alburger-Abshire site	*www.Voiceacting.com*
Marc Graue	*www.fixinthemix.com*
Bob Bergen	*www.bobbergen.com*

'Great News' in Young Demos

Radio got some good news about young consumers for a change in a recent study by Paragon Media Strategies.

Its "Youth Radio & New Media Study" indicates that radio stemmed TSL erosion from a year earlier, erosion the company attributed to the "onslaught" of new media.

"This study quantifiably trends how the next generation of 25- to 54-year-olds use radio and new media," the authors wrote.

The company interviewed 409 respondents age 14–24 via an online survey.

It found that TSL to radio increased among the age group and that radio "continues to dominate in-car music listening. More younger listeners say they are listening to radio 'more' than 'less,' and that is a significant change from a year ago," stated President and COO/Radio John Stevens.

Other findings: Although a majority listens to music from sources other than radio, the percentage who list radio as their primary source of recorded music rebounded sharply.

"In car" listening pushed the increase in radio time spent listening. Paragon said radio "clearly dominates in-car music delivery with a substantial lead over CDs and iPod/portable MP3 players."

Meanwhile, iPods and portable MP3 ownership and use are up substantially; but the number of songs on respondents' iPods and the number of customized CDs they own have plateaued. "While iPod use has a negative impact on radio TSL, the effect was somewhat muted this year," Paragon reported.

The researchers found that music is radio's main draw for those aged 14 to 24.

"Getting turned on to new and different music as well as the variety of music radio offers are the primary reasons for listening to radio."

Paragon says radio "challenges the Internet" as the primary way to find out about new music and that respondents' desire for more new music on the radio increased in the past year. The use of radio Web sites also is up.

Use and ownership of all new media continues to climb, Paragon found, with increases in video games, cell phone ownership, viewing of Webcasts and social networking including sharing of audio and video online.

Read the report at *ww.paragonmediastrategies.com.*

equal the number of disk jockeys thrown out of work by broadcast consolidation. But that correlation doesn't necessarily hold.

I'm not from radio!

"Voice-over work is radically different from what people in radio do; it's a whole different style," said Abshire. "A number of people have made that transition from radio, but when they meet an agent, they have to re-brand themselves and take the emphasis off their radio careers.

"Radio is about personality. It is who you are. In voice-over, you create a character and it could be a different character for every script."

She then spelled out the qualities she looks for in voice-over talent.

"The first is the ability to develop a character. The second is being what we call 'directable.' That means that if you can listen carefully and follow instructions from the producer, you'll get called back.

"And the third quality I look for is passion. If you don't have it, when you get that first rejection, you'll quit and never try it again. Passion means you'll do whatever it takes."

Abshire stressed that one needs more than dulcet tones to get the next gig.

"It's not just the voice," she said. "We get calls all the time from people who believe they have great voices. I ask them how many acting classes they've had, and they're shocked. When we give people a script, we'll ask them to create characters with texture and personality, and if they can do that, they'll be valuable voice actors."

But the voice is what listeners respond to, whether it is deep and warm or midrange and edgy.

"People who work in animation have quirky voices and they are popular with producers," she said. "Through training, people can learn to develop their instrument.

"I can pitch my voice up or down, add a texture or put gravel into it, so it's more about what you do with your voice. It's like a Stradivarius violin. If you don't know how to play it, it's just a beautiful hunk of wood."

For a list of speakers and sessions for the Voice 2008 conference, visit *www.voice-international.com.* James Alburger's book, "The Art of Voice Acting, Third Edition," is available in bookstores or from *www.voiceacting.com.*

Ken Deutsch ran a commercial recording studio from 1976 until 2005. He was often asked to voice tags on the end of commercials that more talented people had recorded.

ROOTS OF RADIO

Jepko's Was a Gentle Voice in the Night

With KSL as a Platform, Network Talk Show Innovator Established Nitecap Radio Network

by Donna L. Halper

Herb Jepko was different. He was cordial to his guests, friendly to his callers; he never raised his voice. His "Nitecaps" show had two rules: no politics and no religion were to be discussed.

His show started during the mid-1960s, when one of the most popular talkers was Joe Pyne, known for shouting at guests and insulting anyone whose opinion he disliked.

But even on shows where the host wasn't rude, contentious issues like civil rights, feminism and the Vietnam war dominated the times. There was none of that on the Jepko show.

Some critics called the program dull. Faithful listeners disagreed and appreciated him for providing comfort and companionship.

L.A. influence

Herb Jepko didn't expect to become a talk show host. In fact, at one point, he thought of becoming a doctor. His childhood was difficult; he was adopted as an infant by Metro and Nellie Jepko of Prescott, Ariz., but that marriage broke up and his adoptive mother left.

His father, a wounded veteran of the First World War, took ill and couldn't take care of him, so the young Jepko ended up in a number of foster homes. In the late '40s, his father was able to resume his care and they moved to Phoenix, where Herb graduated from high school in 1949.

Though he wanted to be a doctor, there was no money for college. The Korean War was going on, and the young man was drafted into the army.

There Jepko discovered broadcasting, becoming chief of radio-television operations for his division. He produced 18 weekly radio shows plus military training films, and was based in California.

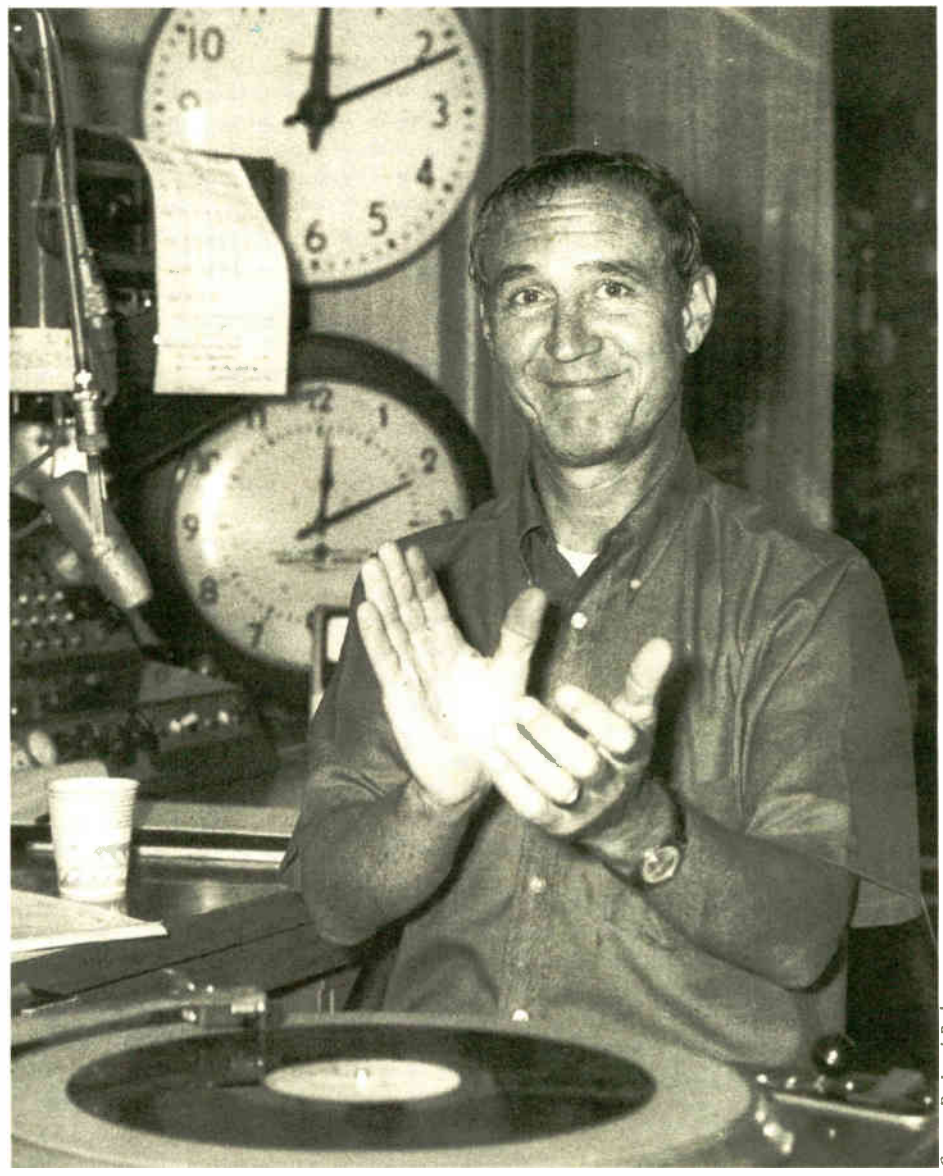
When his service ended in 1954, he remained on the West Coast, working as assistant station manager at KVNA in Flagstaff and then as promotion director of KFI in Los Angeles.

There, Jepko was impressed with the station's late-night announcer, Ben Hunter, who did a call-in program called the "Night Owl" show. Overnight shows were still fairly new in the 1950s, and Hunter's style would influence some of what Herb Jepko later did on the air.

While working in L.A., he met Patsy Little Brown, the woman who became the love of his life. They married, and Patsy soon became an integral part of Herb's radio success.

By 1961, the couple had moved to Salt Lake City, where her family lived. Jepko found on-air work at several small stations; two of the earliest were KCPX in Salt Lake City and KANN in nearby Ogden. His big break came in 1962, when 50,000 watt powerhouse KSL hired him, first for mid-days and later morning drive.

But despite holding a visible time slot on the number one station, Herb wondered about overnights.



Courtesy Dr. Joseph Buchman

Herb Jepko at KSL, probably in the mid-1960s.

At the time, KSL went off the air at midnight, which seemed like a waste of the station's powerful signal. Jepko had seen how successful Hunter's overnight show was, so he suggested an all-night show to KSL management. They were skeptical and told him to take a pay cut if he wanted to do that shift.

He was given a six-week period to prove there was an audience. He took the challenge and on Feb. 11, 1964, his show debuted overnights, as he wanted. At the time it was referred to in radio listings as "The Other Side of the Day" but within a few months, the Jepko program became "Nitecaps." Fans began to call themselves Nitecaps.

Sincere

From the outset, it reflected Jepko's philosophy.

Listeners could call and talk about anything, as long as it wasn't a controversial subject. As he would often tell interviewers, he took pride in the fact that he never embarrassed or insulted a listener, nor did he give anyone an ulcer.

He cared about his listeners; even if they hadn't called for a while he remembered their names, and he seemed genuinely interested in how they were doing. Perhaps his audience, many of whom were elderly, became for him the family he rarely had as a child.

Thanks to KSL's strong signal, Jepko's overnight show was heard in distant cities. Though it had no toll-free number and took no collect calls — this at a time when long-distance calls were expensive — people waited patiently to get through.

It wasn't long before Jepko had proven his point: There really were people out there listening late at night: shut-ins, truckers, shift-workers and lots of insomniacs, all eager to talk to Jepko and other Nitecaps.

Some had a poem they wanted to read. Some tried to sing. Some shared a recipe, or talked about their grandchildren.

Perhaps that is why critics found the show frustrating. Like TV's Seinfeld, it was "a show about nothing" — it had no central theme, no excitement, no feuding guests. Yet listening became like a religion for Nitecaps fans.

Jepko sounded like everyone's best pal, but he also understood good radio. To make sure the conversation didn't drag, he had a device known as "Tinkerbell," a music box that played the theme from the movie "Never on Sunday."

A caller got five minutes maximum; then the sound of Tinkerbell would remind the caller time was up. There were other rules too, such as being allowed to call only once every two weeks.

His vision for the show involved more than just chatting. He wanted to use it to do good for others and helping those less fortunate.

Since his listeners regarded the show as

See JEPKO, page 31 ▶

Jepko

▶ Continued from page 30

a community, he created a club for them in mid-1964. A year after the Nitecaps International Association was born, there were more than 25,000 active members.

Nitecaps also organized into local groups, or Nitestands; in addition to monthly meetings, each devoted itself to a particular charitable endeavor, like visiting the sick or reading to the blind. A 1967 article noted the existence of more than 100 Nitestands, with 27,000 members in Southern California alone.

The show had its own theme song, "We're the Nitecaps," a cheerful piece written by devoted fan Della Dame Edmunds.

The Nitecaps had an official magazine, "The Wick." Its pages contained some of the same features as the show, like recipes and what various Nightstands were doing. The publication included inspirational messages from Jepko as well as photographs. In the pre-Internet era, readers anticipated pictures eagerly; members in each city wanted to see what others looked like.

Show-related merchandise was advertised in The Wick; at first, Jepko and his wife filled the orders themselves, as listeners purchased Nitecap stationery, Nitecap pins, copies of the Nitecap theme song and more. Once a year, they could attend the Nitecaps convention, part of Jepko's mission to encourage Nitecaps to meet and become friends.

Expanding

In 1968, Jepko began syndicating the program, putting it on several radio stations in addition to KSL. The couple managed the syndication themselves, and the first affiliate was KXIV in Phoenix.

In 1966, he'd had only four phone lines, but within five years an Associated Press article was estimating that Jepko had more than 2 million listeners and needed 11 lines to handle calls from all over the country. AP reported that among his fans were such celebrities as Ronald Reagan, governor of California, and singer Pat Boone.

While critics didn't understand the show's appeal, Herb Jepko certainly had his finger on the pulse of Main Street.

Chuck Graham, entertainment writer for the Tucson Daily Citizen in Arizona, admitted to being fascinated by the show and its devoted fans but wondered how people could get so excited about listening to "three hours of happy conversations from wholesome people."

Yet that seems to have been the show's charm; it made people feel good.

In 1975, Jepko had more than 20 phone lines in the studio. He'd been picking up more stations, including big signals like WHAS in Louisville, Ky., and WBAL in Baltimore. Where the staff had once been his wife and himself, he now had 25 people working for him.

Given that profile, it was not surprising that Mutual Broadcasting System, a national radio network, became interested in putting his show on its affiliates.

Where today there are many syndicated late-night shows, in 1975 there would be one: Herb Jepko's. "Nitecaps" went on the network on Nov. 4, 1975, and would be heard coast to coast on several hundred stations. As a result, Jepko is considered a pioneer in overnight syndicated radio talk.

This should have been the start of something big for Jepko; unfortunately, it turned out to be a disaster.

19-month run

There was tension from the beginning, with Mutual executives increasingly uncomfortable about the show's folksy and non-confrontational style.

According to Jepko, he was told to make the show more controversial and was asked to move closer to the corporate headquarters in Arlington, Va. He said no to both.

But the real problem was sales. Mutual had never broadcast an overnight show, and its sales force had no idea how to sell all-night radio, especially radio aimed at

See JEPKO, page 32 ▶

'Kathleen' Is Now Two Hours

Better and healthier living is the focus of Kathleen Slattery-Moschkau and her program "The Kathleen Show."

It is now being offered in a format of two hours instead of one.

The program was launched in 2006 by the filmmaker and former drug rep whose says her goal is to educate through entertainment.

Guests have included authors Rory Freedman and Martha Beck, coach Chris Carmichael, event planner Colin Cowie and researcher Dean Ornish.

"Kathleen" has five radio affiliates, all AMs that carry the show on weekends in markets that include Washington, D.C., and Madison, Wis., where it operates out of WTDY.

Recent additions include KKEE in Astoria, Ore., and KFAR in Anchorage.

The syndicated program is also packaging weekly "Take Charge Moments," one minute Web-teasers that will "inspire people to live a passionate and healthy life."

Info: For affiliation, RadioLinx at (480) 993-3150 or e-mail kathleenshow@radio-linx.com.

Tips for Dealing With the Stars

PROMO POWER
BY MARK LAPIDUS

News flash: It's nearly impossible to find a real talent who isn't a challenge to work with.

I don't know why this common fact of life in radio seems to surprise staff members; it shouldn't.

There is something about creative, ego-driven talent that often makes them act out, challenge the status quo and confront authority figures.

Is this bad? It's not great for the environment in which that star works, but it's a price most of us have to pay to work with winners.

Talent performs

Let's examine a few useful tactics.

A definition of real talent may be useful.

Are we talking about a personality who draws significant ratings (beating every other day part on the station and your competitors) and who generates above-average revenue? You have a star on your hands. Is he or she asked for their autograph or frequently stopped by strangers? If so, consider yourself lucky.

On the other hand, when you have a personality who thinks they're a real talent yet draws average ratings and no extra revenue, you don't have a real talent; you have an issue.

Foremost, real talent requires an appropriate program director. There is no PD poster child for dealing with stars, because each talent is unique. There are however, a few commonalities.

PDs who handle top-notch talent must be exceptional listeners. They must be patient. They have to know how to help the talent get things done.

The rest of that relationship is mainly psychological. Some stars need a good friend. Some talent need tremendous positive reinforcement. Some talent really want to continue to grow and desire another perspective that will challenge them and help them create.

Smart talent will play the mommy/daddy game until they get the answer the want. A GM and PD have to stay on the same page.

One of the biggest disconnects I've witnessed is when general managers want to control a successful personality, by themselves or through a program director. It's rare to find a star willing to bow to a suit. If conflict escalates, it often boils down to who's more important to the bottom line.

Yes, I have seen GMs pushed out of the building when they can't get along with and help the real bread winner.

It's also vital that a GM not cut off a PD's legs by saying yes to things when a PD has just said no. Smart talents will play the mommy/daddy game until they get the answer the want. A GM and PD have to stay on the same page.

Engineers, sales managers and promotion directors who come in contact with this center of attention at the station must understand their roles in dealing with him or her. They are there primarily to support that person.

Yet there is one situation where heavy direct conflict is required: You must never allow the talent to do something dangerous to a listener, a staff member or to themselves.

Go with your gut on this one. When you sense your celebrity is suggesting a dangerous contest, stunt or promotion, take a stand or you may regret it the rest of your life.

It's important to admit that not everyone who works in radio is capable of dealing, or willing to deal, with a star.

But there are many rewards for being part of such a team, not the least of which is financial. Real talent can take stations places they would never go without them.

Before you send me an e-mail about a star who is a also a great, warm, understanding person: I know such a character exists. I've worked with a few like that. I only wish there were more of them.

E-mail the author at marklapidus@verizon.net.

Jepko

▶ Continued from page 31

an older audience. This, at least, is how Jepko related the problem to a New York Times reporter in 1977.

In the end, there were not enough commercials to generate sufficient revenue. Mutual cancelled the show in May of that year.

It was a disappointment for Jepko and for his audience. He continued to work at KSL until August of 1979, but then his home station too cancelled the show.

Jepko tried to get back into radio but was never able to recapture his success. A group of fans in San Diego helped him get back on the air in June of 1981, broadcasting from KMJC in El Cajon, Calif., and on a few small stations. But that experiment did not last, nor did a subsequent effort in October 1982. The era of the Nitecaps was over.

As the industry changed around him, he grew increasingly more depressed, according to a 1995 account in the Salt Lake City Tribune, exacerbated by the death of his son Herb Jr. from AIDS and his own declining health (he suffered from severe arthritis).

In late March 1995, Herb Jepko died at the age of 64.

To this day, there are former Nitecaps who recall being on his show. A Web site has been put up in his memory by a friend of the Jepko family, Prof. Joseph Buchman, at *www.nitecaps.net*.

"My first job in radio was running the board for The Nitecap Radio Network from midnight to 6 a.m. on 250-watt WXVW(AM) 1450 in Jeffersonville, Ind.," Buchman wrote on the Web site.

"I remember those long, lonely nights well; listening to Nitecaps from around the country interact with Herb, discuss the activities of their Nitestands, the latest article in The Wick, their grandchildren, recipes (often with Herb's pal 'The Crusher'), and opening a window to what was, truly, a radio family."

Buchman credits Jepko for showing a path that allowed talent like Larry King, Art Bell, Phil Donahue and Ellen DeGeneres to flourish.

In June 2003, the Utah Association of Broadcasters Hall of Fame gave Jepko a posthumous award, establishing a scholarship in his memory.

There may be no place on today's radio for a kinder, gentler show like Herb Jepko's. Based on the comments left by fans on Buchman's Web site, plenty of folks think that's a shame.

See more photos of Herb Jepko at radioworld.com *under the Roots of Radio tab.*

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WANT TO BUY

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Radio World
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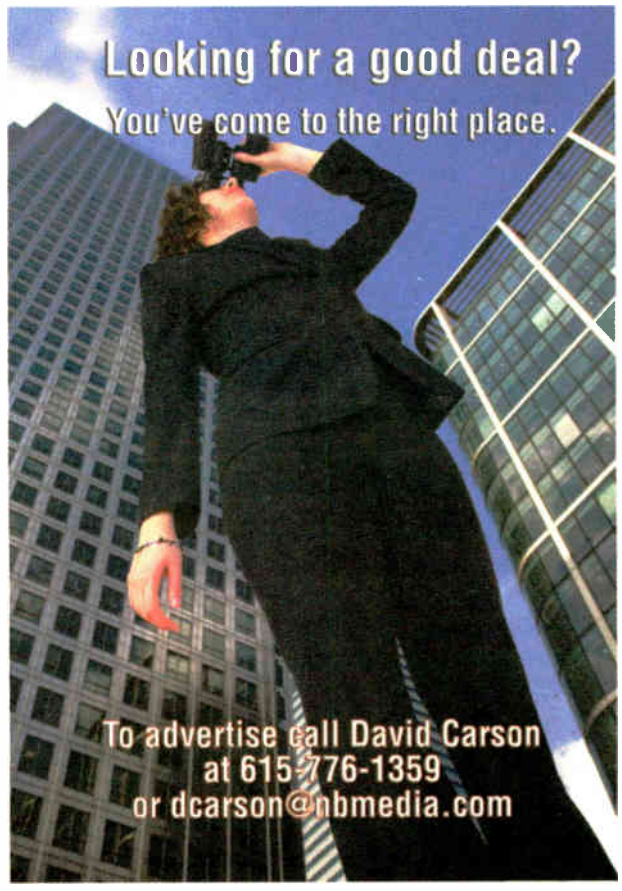

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C.E. position wanted: Experienced with computers, transmitters, H.D. transmitters, automations, digital studios. Call: (406) 227-6454.

Sociable & confident young woman perfect for that promotions opening, I am sure to bring listeners back to your events, Dottie, 972-964-3362 or deh103@aol.com.

Motivated, energetic, & ready for another radio challenge, 6 years as a co-host with skills including news, interviewing, copywriting, on-air, plus production. Amy, 214-515-2794, queen1amy@yahoo.com.

Extremely knowledgeable and articulate racing writer/talk show host Adam Amick is available for shows, correspondent, features, etc. Check out www.bleacherreport.com or www.rubbinsracingshow.com for samples. Call 214-384-5812 or email: adam@rubbinsracingshow.com

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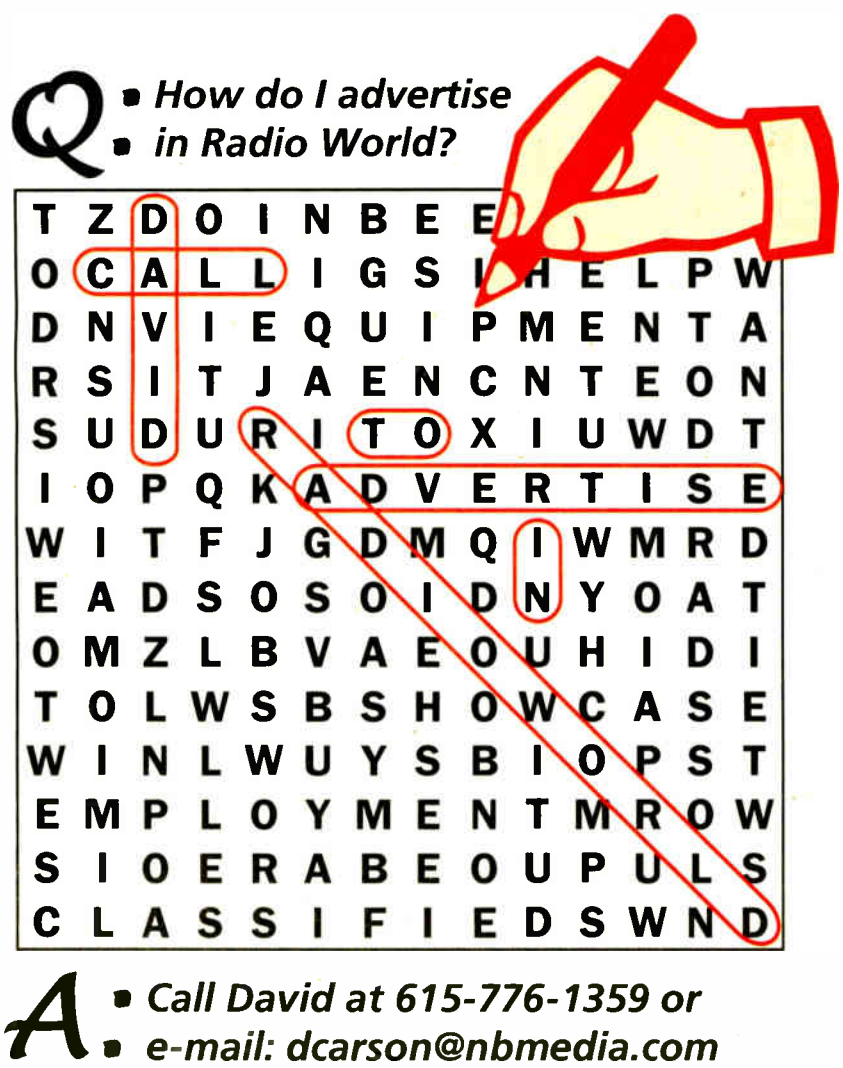

GUEST COMMENTARY

New Media Ensure Revenue, Relevance

Engage Audience, Increase Listener Value Via Promos; What are You Waiting For?

by Ivan Braiker

The author is the co-founder and CEO of HipCricket Inc.

National radio revenues have been declining, prompting many analysts to stamp a prominent "do not resuscitate" sticker across a medium that has revolutionized the way we share knowledge and communicate.

But, while national radio revenues are down, non-spot revenue continues to increase significantly, a combined 24 percent for March and April.

iStock/©Robert Simon

The key for radio programmers is to distribute products and promotions out to other media — namely, the mobile phone.

What does this mean? It means that the traditional method of "selling spots" is broken. It does not, however, mean that radio is dead.

Staying power

More than 100 years old, radio is the original social medium. Radio has always offered a unique connection to listeners — and that hasn't changed. What has changed is the way in which listeners respond and interact.

Consider the following statistics: According to the Nielsen Co., 23 percent (58 million) of U.S. mobile subscribers have been exposed to advertising on their phones in the last 30 days, with half (51 percent, or 28 million) responding to a mobile ad.

Combine these findings with eMarketer's predictions — that the U.S. mobile advertising market, a $1 billion market in 2007, will grow to $5 billion over the next four years — and it is clear that radio can remain relevant.

The key for radio programmers is to distribute products and promotions out to other media — namely, the mobile phone.

The benefits of mobile marketing are vast. Other than viral marketing or guerilla tactics, it is probably the most inexpensive form of marketing; and it creates new revenue streams, generating a significant return on investment. Once conceptualized, campaigns can be executed almost immediately, in as little as 48 hours in many cases.

Moreover, mobile marketing creates one-to-one relationships, enabling stations to create loyalty clubs (opt-in mobile listeners) that can be marketed to, both by the station and the brands to which they sell ad spots.

There are a number of radio stations already embracing mobile marketing, and with great success.

WPOW(FM) Power 96 in Miami recently conducted a "High School Spirit" contest with schools from Miami-Dade, Broward and Palm Beach counties. Each participating high school was assigned a keyword for the 25-day contest.

Contestants could text as many times as they wanted to the station's shortcode.

There are a number of radio stations already embracing mobile marketing, and with great success.

In just more than four weeks, Power 96 received 4,161,644 votes via text message. The station also nearly doubled its mobile marketing database, with listeners opting in to receive future promotions from the station. The winning school enjoyed a performance by Plies, Colby O'Donis and Pleasure P.

More than a quarter-million texts were received by a Beasley station in Philadelphia for a concert with Paula DeAnda. Sure, the artist is a big attraction, but so is the ability to reach listeners who text as part of their everyday activity.

These campaigns illustrate the power of mobile marketing. Moreover, they provide proof that radio can be interactive.

Stations that are embracing newer media, like SMS, are increasing revenues and relevance. They are engaging their audience and bringing further value to their opted-in listeners through offers and other promotions. So, what are you waiting for?

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NewBay Media

Be Mindful of the Past, But Look to the Future

You Know What They Say About 'Past Performance'

In April of 1965, Gordon Moore, who was then director of research and development at Fairchild Semiconductor and who would go on to co-found Intel, wrote an article titled "Cramming More Components onto Integrated Circuits," for Electronics magazine.

Moore famously posited that computer technology in general, and "chip" memory specifically, would double in power (twice as many logic "gates" in the same amount of space) every 18 months, for the foreseeable future, without an increase in cost.

Over the years, this became known throughout the high-tech industry as Moore's Law and it has proven to be, if anything, a bit conservative.

The technological improvements forecast by Moore's law have allowed radio stations to assemble computer networks and automation systems powerful enough to program entire groups of stations simultaneously in "cookie cutter" fashion. The irony, though, is that those advances led to personal entertainment devices that give individual listeners unprecedented choice over their listening habits.

Such is the conundrum facing today's broadcasters: how to reinvent radio — a mass-medium technology platform that is, in the case of FM and depending on how you count, more than 60 years old, and AM, an unbelievable 85+ years old — in such a way that it retains relevance in the age of unlimited personal entertainment options.

This task is not insurmountable and in fact, is made easier by our cultural predispositions.

In his landmark book "The Paradox of Choice: Why More Is Less," author Barry Schwartz makes the compelling argument that too much freedom of choice leads to frustration and ultimately, indecision.

This is true whether the choice is important, such as what investment to choose, or mundane, as in "which of my 2,500 iPod songs should I play next?"

Furthermore, the "watercooler" effect in our society is well documented. People, in general, value shared experiences, and meet around the office watercooler or espresso machine to discuss current events, such as who was voted off "American Idol," or which new concert is coming to town.

All of these facts favor mass media-traditional radio as a continuing source of information and entertainment, even in the face of competition from personal MP3 players and the like.

Programmers need only be creative enough to recognize the trends of their listening audience, and program to those trends. That may seem a simplification of a complex problem, but it is built on truth. It's another way of stating that familiar phrase about content and royalty.

Some stations are taking baby steps in that direction — to cite but one example, allowing listeners to "program" station playlists via the Internet. We also reported on several creative marketing and programming approaches in our recent supplement "Radio in the Post-iPod Era." RW applauds such efforts to challenge the assumptions on which our businesses are built.

We believe that the basic consumer value of commercial radio remains remarkably strong despite the years that have passed since its birth. Indeed, current surveys still show that over 96 percent of the population 12+ listen to free, over-the-air radio at least once a week.

At the same time, though, forward-thinking broadcasters will be mindful of the old investment adage that past performance is not an indicator of future results, and act accordingly.

— Radio World

◆READER'S FORUM◆

Digital Band-Aid

I enjoyed the article by Read Burgan ("Audition 3.0: Digital Audio Band-Aid," May 7), but thought I'd make a small correction.

The spectral view feature wasn't a byproduct of Adobe's Photoshop work, but was in fact in Syntrillium versions of Cool Edit Pro 2.0 and earlier. This predates the sale to Adobe by more than a year. Those of us beta testing noticed the very last CEP beta was extremely similar to the Adobe version.

Nels Johnson
Anchorage, Alaska

All for Naught

Why on earth would I need to hire someone to sit at the radio station every night waiting for emergency personnel to call ("'Localism' Is on the Minds of Managers," May 21)?

My EAS system is programmed to automatically go on the air with such emergency information. That's the point of the EAS, isn't it?

If the emergency called for it, they could literally take over my radio station, feeding the listeners a steady stream of vital information. No pesky radio personnel will get in the way or risk messing up the message in translation. It's straight from the horse's mouth.

At least that's what I thought the EAS was for. On the other hand, I am still shaking my head about the fact that the EAS wasn't activated on 9/11. Every plane in the country is grounded. The president is hustled off to safety. God only knows what will happen next. But where are my listeners getting their information during this national crisis, the only one in my more than 20 years of radio experience? Not from the EAS.

I've been hearing tests for the emergency system my entire life, yet when we finally have a national emergency ... nothing.

Oh sure, everybody covered it. News networks offered their feeds for free, even to non-affiliates. We had wall-to-wall coverage, even though we were a music station. It's all anyone cared about that day. But still, no activation of our Emergency Alert System.

I spent the money. I bought the equipment. I run the tests. I keep the files. I'm in compliance, yet keep one eye over my shoulder. And for what?

Doug Apple
General Manager
WAKU(FM)
Tallahassee, Fla.

RW: The Right Tone

Four recent articles in Radio World intrigued me like never before.

Very good reads on commercial shortwave broadcaster Jeff White by James Careless (March 26); Chuck Bullett's "Keeping Tabs: Public File 101" (April 23); and Thomas R. Ray III's two-parter on WWV (April 23 and May 7).

My job responsibilities at my stations include EEO and public-interest compliance and filing reports for same in our public file. Chuck Bullett gets points for clarifying what's needed in this important area of our business.

Like Jeff White, I was in high school in 1972 and was floored by the exciting content on shortwave. I have QSL cards from more than 20 international broadcasters. The BBC and VOA broadcasts during that time influenced a lot of my music purchases because much of it wasn't available or even played locally on the radio. I enjoyed listening to the "Voice of America Breakfast Show" every night before bed.

I liken the shortwave radio experience at that time to the joys of the Internet today. Radio Nederland in Hilversum, Holland. Radio Moscow, Radio Deutsche Welle, Radio Canada and so many more were my favorites with compelling content.

Then there was WWV in Fort Collins, Colo., the station that taught me the 24-hour time system. I set my watch to it every morning to make sure I wouldn't miss my favorite shortwave broadcasts. And it was just great having the exact time.

The tone A above middle C (A-440 Hz) was my favorite song on the station, one of the longest notes in music history. Gary Wright's "Dream Weaver" almost rivaled it! I've always joked that I aspired to be WWV's music director.

Those three issues of RW are keepers. A lot of good reading and especially great memories provided by Jeff White's awesome work and reflections on shortwave radio and Mr. Ray's articles on the National Institute of Standards and Technology time services.

I dedicate "A-440 Hz" to all of you at Radio World.

Mike Eiland
Community Service Director/
Program Producer-Host
Clear Channel Radio-Columbus
Columbus, Ohio

E² Ethernet Audio

MEET THE SQUARE

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

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

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

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

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

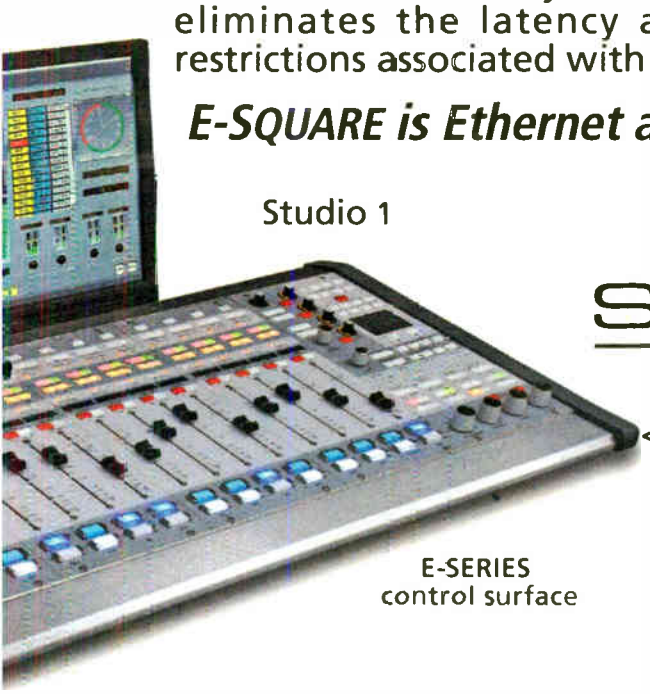
88A I/O: 8 analog inputs and outputs. You can bring a new SQUARE up in seconds and of course use the front panel encoder for your X-Y control. Front panel status LEDs give you continuous link, status, and bit rate information as well as confirmation of any GPIO activation.

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

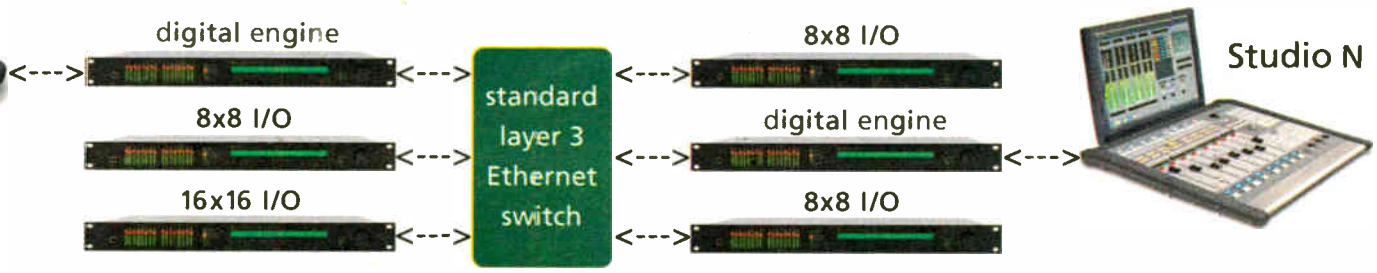
88AD I/O: 4 analog plus 4 digital inputs and outputs—perfect for small studios or standalone routing.

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

E-SQUARE is Ethernet audio done RIGHT!



STUDIOS DONE EASY!



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