For WILQ, It's a Wrap
Pennsylvania station takes its air talent on the road.

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RF Exposure
Richard Strickland on the importance of 'shaped-frequency response.'

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Greying Gadgets
How older Americans use tech.

Page 3

It was nice meeting you, we should keep in touch...

I'm "SkyyChick967" on MySpace.

"ViagraBoy420"

Source: bLaugh.com

Radio World.

$2.50   **The Newspaper for Radio Managers and Engineers**   **April 24, 2009**

NewBay Media

NEWS ANALYSIS

Audemat Acquires APT's Codec Business

Principals See Synergies in The Deal; APT Branding, Manufacturing to Remain

by Randy J. Stine

BORDEAUX, France The ultra-competitive audio codec marketplace is reacting to Audemat's acquisition of the broadcast equipment division of APT. It is a business deal involving prominent international brands that also enjoy a U.S. presence.

Industry observers said the agreement allows Audemat to add respected codec brands, including WorldCast and WorldNet, to its product lineup of RDS encoders, transmitters and monitoring equipment. APT meanwhile now will focus more on its algorithm business.

No terms or conditions of the sale were announced. It closed in March, officials with the companies said. Both firms are privately held.

"Audemat is very well regarded, so we are watching it closely," said Tom Hartnett, technical director for Comrex, a competitor to APT in the remote broadcasting segment. "In the past,

---

The FCC at 75: Still Relevant?

Yes, But With the Commission About ... a Notable Anniversary, ... Experts What's Next

J. Stine

...TON Broadcast industry attorneys say a new administra... C chairman will lead to changes in how the Federal Com... Commission interprets and applies the Communications ...nd related legislation.

...endent regulatory agency, created by an act of Congress on ...4, marks its 75th anniversary this year. It has tremendous ...ny in steering technology trends that will directly affect radio broadcasters and their operations, experts said.
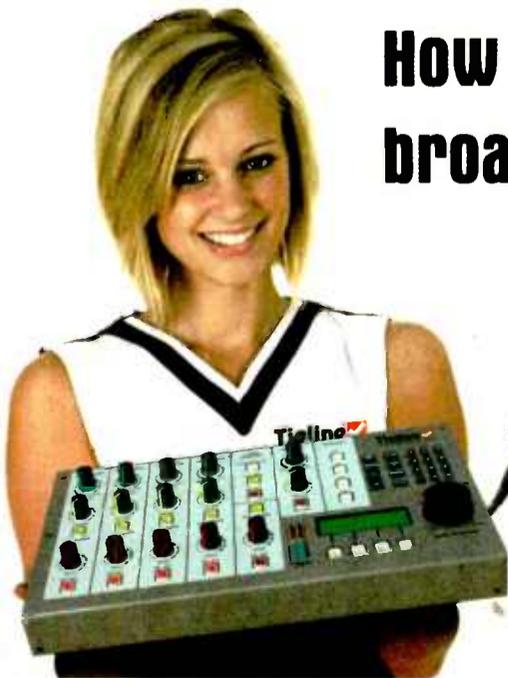
President Barack Obama has nominated Julius Genachowski as FCC chairman. Assuming Genachowski is confirmed by the Senate, the president will still need to fill two additional spots on the commission's five-person board — those

Photo courtesy FCC

How do you fit an entire remote broadcast truck in a single box?

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'Greying' Gadgets: How Older Americans Use Tech

Baby boomers have swelled the ranks of so-called "older Americans." People age 50 and up increasingly are being sought by marketers and manufacturers.

One significant trend is that members of this age demo are more tech-savvy than in past generations. They use the Web a lot, especially to research health issues and travel.

There are 96 million Americans 50 and older, according to U.S. Census Bureau projections for 2008. That's out of a total population of 307 million. By 2020, the bureau projects that older Americans, by then numbering 118.7 million, will make up 35 percent of the population.

The Consumer Electronics Association and Compete, which specializes in studying online consumer behavior, recently teamed up on a study called "Greying Gadgets: How Older Americans View Consumer Electronics."

Among key findings: 67 percent of 70-somethings use a cell phone on a weekly basis; and older Americans are 27 percent more likely to visit travel Web sites than the average Internet user and 98 percent more likely to visit health sites.
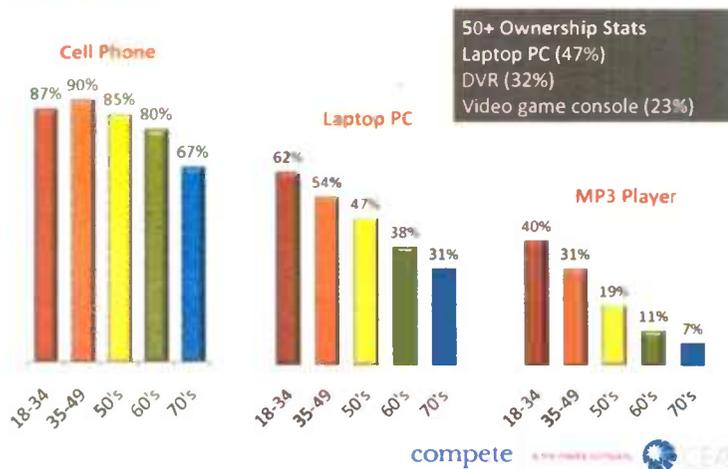
When asked what top five consumer electronics they intend to buy in the next year, people in this age bracket listed HDTVs, laptops, cell phones, digital cameras or GPS devices. Radios were not among the top five results.

Their purse strings remain tighter than the average American, however. Asked how much they would spend on technology over the next five years, the average answer for all age groups was $2,000, but for older participants $500. Sixty percent of consumers who participated said they plan to spend less than $500 on CE purchases in 2009.

One thing in common among *all* age groups, not just older users, was frustration with CE products because of "feature creep" — when manufacturers load features into a device

because they believe it delivers more value to the customer.

Sixty-four percent of those in their 60s said too many features on a device frustrates them, compared to 57 percent in their 50s. Forty-three percent of 35 to 49-year-olds said too many features on a device frustrates them and only 30 percent of 18 to 34-year-olds said so.

The figures were similar for participants who said CE device terminology is confusing and buttons are too small on CE devices — all adding to product frustration.

More than 3,000 older Americans took part in the online study in November and December; CEA and Compete interviewed adults ranging in age from 55 to 85. The companies used survey data they already had for the younger age groups.

— *Leslie Stimson*

CE Products Used in the Past Week
For most products, ownership follows a similar pattern

50+ Ownership Stats
Laptop PC (47%)
DVR (32%)
Video game console (23%)

Cell Phone: 18-34 87%, 35-49 90%, 50's 85%, 60's 80%, 70's 67%

Laptop PC: 18-34 62%, 35-49 54%, 50's 47%, 60's 38%, 70's 31%

MP3 Player: 18-34 40%, 35-49 31%, 50's 19%, 60's 11%, 70's 7%

compete

INDEX

Survey
Excellent
Very Good
Good

iStockphoto/Feng Yu

From the Letter Bag of Mr. Cool Pants

From the Editor

Paul J. McLane

In this issue we offer the first of several articles about the Federal Communications Commission as it approaches its 75th birthday.

Love or loathe it, the FCC is a fact of life for radio broadcasters. I think it's productive to look both forward and back, to reflect on the role it plays, and may yet play, in our business and industry.

What should a future FCC look like? Tell me your thoughts at *pmclane@nbmedia.com.*

★ ★ ★

I received several gratifying notes from readers regarding my comments about Facebook and evolving media consumption habits in the March 1 issue.

"I read your recent editorial about Facebook and saw that you are also on LinkedIn," a longtime friend wrote. "We're in the same field, so I'd like to add you to my professional network on LinkedIn. Even though you seem to be turning into a cranky old Luddite.

"One way Facebook has been good for radio," she continued. "I often send my Facebook friends links to articles on NPR. My iPod has had a great impact on the way I consume radio. I don't use it to listen to music. I use it to listen to favorite spoken-word radio programs on my own schedule. I never need to miss 'Wait, Wait ... Don't Tell Me' again."

High school teacher Ronald Burtnick also likes spoken-word content:

"While reading your Facebook lessons article, I thought about what has affected my radio listening. During most of my careers I have usually commuted a fairly good haul. During the years that I took the train or the bus I would sleep or read (usually books: alternating between science fiction and political nonfiction). In other commutes I have been car-bubble bound and the radio was my constant companion.

"Bob Grant was one of the first to catch my ear with his sign-off: 'Your influence counts …. Uuuuuuuse it.' I think I caught Rush's first days on WABC. I have gone through the ups and downs of losing a favored host and learn-ing to accept the replacements of discovering that the lineup at the Big Talker in Philly was more listenable at times (when I got the signal). If I weren't on a budget I would have probably gotten satellite and maybe then I would get back to listening to G. Gordon Liddy.

"What has changed things the most," he continued, "was deciding to finally listen to all those books I had been meaning to read.

"Now I'm usually oblivious to breaking news, weather and traffic. Well, I rarely heard about a traffic jam of which I wasn't already stuck in the middle. I don't listen to much science fiction lately, but I do listen to a good deal of political titles and other interesting topics such as brain science.

"I don't bother telling Facebook which Clint Eastwood or Charles Bronson movie I am watching anymore."

Another friend and former colleague pitched in: "Just wanted to let you know how much I enjoyed your recent commentary about Facebook. I know exactly how you feel. My nieces and nephews coerced me into setting up a Facebook page and I'm still getting the hang of things. I just joined a couple of weeks ago and am still trying to get my page set up; still haven't posted a picture. Glad to know that I'm not the only 'older' adult to be on FB."

(When did I become an older adult? Sigh.)

And my favorite reply: "I absolutely loved reading about your FB experience — I was on the floor rolling because I totally related. I'm impressed you had the guts to do it — I'll look at you in a completely different light now — like that guy is cool he has an FB page. I must ask my daughter to show me your page. I have no idea how to do that stuff, Mr. Cool Pants."

★ ★ ★

Another Mr. Cool Pants — and self-described audio nerd — is Tim Schwieger, president of equipment distributor BSW.

"I have HD buyer's remorse," he wrote on his blog recently. "I purchased the HD Radio option in my BMW-X5 in January 2008. … But I must say after having paid for and using this option I kinda secretly wish I could get my money back. And here's why. The HD audio signal can't seem to find my car."

Tim relates that in the Seattle-Tacoma area, there are 10 or so HD Radio stations on FM, one on AM. But: "After a year of trying to listen to the HD signal, I'm now

Tim Schwieger says the HD Radio signal can't seem to find his car. 'I kinda secretly wish I could get my money back.'

conditioned to expect the HD signal to constantly pop in and out, just like mono/stereo signal in my old 1970s FM converter box."

In between longings for the days of his 1964 Chevy Impala, Tim made the point that his HD Radio "kicks in and out a lot. If I happen to tune into a HD2 signal, then the 'no commercial HD2 Crawdaddy Blues format' just mutes. And mutes. And mutes some more. You get the mute point.

"Speaking as a citizen here in Publicville, I feel gypped. And I really don't care what the technical reasons are … I just want HD to work. So ... *fix it.*"

Strong words from a guy who makes his living selling broadcast equipment — and another indication (if you need one) that, for all its promise, HD Radio has a long way to go to meet its many promises.

★ ★ ★

One other note worth sharing comes from a DOE working hard in the engineering trenches.

"Sorry about being radio silent lately. Lately, the business of radio in this post-Madoff, Ponzi-crazed world and advertising starved era is a challenge."

All engineers at his company effectively were "banned" from attending the NAB Show this year, he told me, and were instructed that their responsibilities right now are on finding operational savings in their respective markets.

"They don't even want us driving to the transmitter, or if we do, there are no expense reports being approved, so that's on our own nickel.

"The biggest impact for us is that there are more layoffs looming in the days ahead, and my department will not be spared in this latest round."

Bottom line, he tells me: "It is *very* tough right now. Every expenditure at every level is being scrutinized, from diesel for the emergency generators to a complete ban on overtime, with the expectation that employees will continue to work effectively for free to complete projects and event engineering."

(He says the accounting folks have even asked how many times a year he really needs a generator anyway: "Can't you just buy fuel when you need to use it?")

You too can probably point to stories like this that are both wryly funny and troubling. They reflect how close to the bone some companies are operating.

Here's to better times. 🌐

Mexican AM–FM Transition Sought

Though Bogged Down, Process Raises Questions for Future of AM Band There

by Gabriel Sosa Plata

MEXICO CITY The Mexican government wants to give the majority of AMs in the country the opportunity to migrate voluntarily to the FM band, subject to availability of frequencies.

However no FM frequencies have been awarded; the plan is bogged down in administrative complications and it's unclear when it will move forward.

According to SCT, the agency that sets communications policy, a station that wished to move would have a year from the time of authorization to put an FM station on the air and another year to give up its AM frequency and turn in that license.

This all raises questions about the future of the AM band in that country, and at least one observer predicted the majority of AM broadcasters in Mexico will shutter operations on that band within five years.

There are 1,580 total radio stations in Mexico; 854 are AM and 726 are FM, according to the SCT decision, published in the Mexican equivalent of the Federal Register.

The government aims to give those AMs that move to the FM band equivalent power level/coverage area.

Cofetel, which regulates broadcast communications, released the first list of regions where there is sufficient spectrum to allow AM stations to shift to FM.

First step

The Region I list sets the requirements for issuing authorized frequencies to AM stations to optimize the use of the public airwaves in the transition to digital radio. (Mexico last year began allowing stations within some 200 miles of the U.S. border to use IBOC on an experimental basis; and in the document about offering FM frequencies to AMs, the SCT gave Cofetel a Dec. 15, 2009 deadline to recommend a digital radio standard.)

Cofetel determined the available frequencies in the Southeast, the first region being considered for the move.

Cities included in this Region I tier include Becal, Campeche, Ciudad del Carmen, Francisco Escárcega, Palizada, Xpujil and Tenabo in the state of Campeche; Cancún, Chetumal and Felipe Carrillo Puerto in the state of Quintana Roo; Cárdenas, Comalcalco, Cunduacán, Macuspana, Tenosique and Villahermosa in Tabasco; and Mérida, Peto, Tizimín and Valladolid in Yucatán.

Publishing the list is the first step necessary for stations to transition. Next, AM operators must petition Cofetel for an FM frequency.

From the time of publication, licensees had six days to make their application. They also need a favorable statement from the federal competition authorities and other government officials.

Once it receives the documents, Coftel will analyze the application and, if approved, will assess a fee to cover the costs associated with the frequency change as determined by the Mexican finance ministry. No fee for transition will apply to non-commercial broadcasters.

Once an AM begins broadcasting on an FM frequency, if the coverage area includes populations that can only receive AM signals, the broadcaster will have to continue AM operations until Cofetel determines they are no longer necessary.

But while several AMs from Region I applied for a frequency, none have yet been awarded because the process is tied up in administrative complications. For example, MVS Radio, a group that owns only FM stations in that area, has filed a legal challenge, according to a source that asked to remain anonymous.

Too crowded

The plan to open FM frequencies to AM broadcasters came after members of parliament belonging to the party PRI (Partido Revolucionario Institucional) proposed reforming federal laws governing broadcasting to allocate FM frequencies to all AM operators. No fees for the transition were envisioned.

The proposed changes would also allow operators to seek FM licenses in nearby markets if the FM spectrum was too crowded in their AM coverage area.

Pre-empting the legislative action, SCT published its own rules for an AM-to-FM transition.

Carlos Sotelo, president of a broadcasting trade group, said the move by the SCT likely would benefit the ruling National Action Party, one of the three main political parties in Mexico. It faces elections in 2009.

Sotelo argues that the administration of President Felipe Calderón went too far in publishing these transition rules, bypassing the constitution and the law. He said that since the airwaves are public property, the award of FM frequencies should follow standard licensing procedures, designed to protect the public interest and ensure transparency.

Small operators

Nevertheless, said Sotelo, instead of focusing on constitutional controversies, the Mexican legislature needs to assume its responsibilities and pass long-delayed reforms for electronic media.

For his part, a former senator and president of the governmental transparency lobby, Javier Corral, called the agreement a "deplorable act of political opportunism" by the federal government, which is "trading public property" for electoral gains.

Corral said that while small operators may appear to benefit from the SCT move, in reality, the move will reinforce the position of networks and groups that have acquired AM licenses in recent years in anticipation of a move to FM.

Despite these concerns from some sectors, broadcasters generally have welcomed the change. Enrique Pereda, president of a broadcast association, congratulated the government on the initiative.

According to Pereda, there is space on the FM band for all AM broadcasters. "If someone has five [AM] stations, the agreement will give him at least one in FM — but everyone is going to get something," he said in an interview with the Reforma newspaper.

As for the re-licensing fee, Pereda said that it would depend on the license area and would not be a great amount for a small city.

Roque Chávez, founder and former president of Radio Independiente, an association devoted to having FM licenses allocated to AM operators, said "It is good to see [it] with my own eyes."

Channel spacing

Nevertheless, said Chávez, to accommodate all AM broadcasters on FM, it will be necessary to reduce channel spacing from 800 kHz to 400 kHz, which will mean a standards modification.

Chávez also said he could anticipate the majority of AM broadcasters shuttering operations on that band within five years.

"It is foreseeable that there would only be a few [AM] transmitters still in operation, primarily in the rural areas of the Mexican Republic," Chávez said.

Fernando Mejía Barquera, a radio specialist and researcher at the Universidad Nacional Autónoma de México, a public university based in Mexico City, said the publication of available frequencies in other regions will follow a timeline set out by the Calderón administration.

"We will be looking at the number and location of frequencies offered, and also at the political and technical criteria," wrote Barquera in his column for the magazine Etcétera.

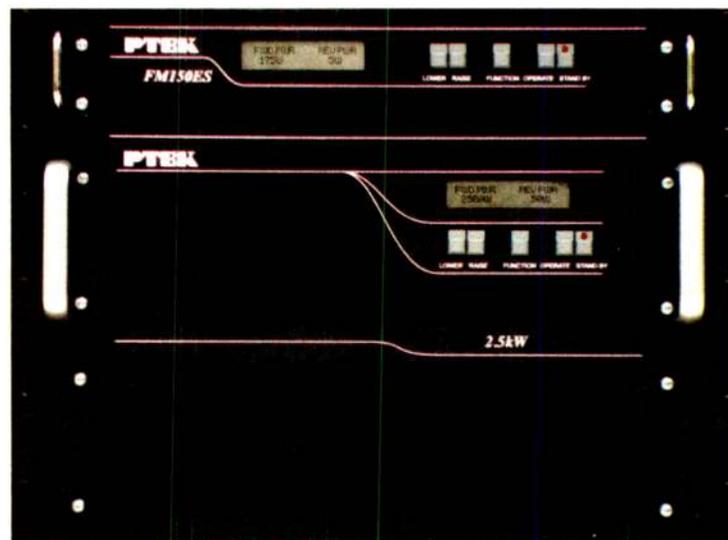Barquera also questioned what the move will mean for non-profit stations. "The Calderón agreement does not make any reference to the support that a state or local government might grant to educational, cultural or indigenous stations to acquire the equipment needed for FM transmissions," he wrote.

News Editor/Washington Bureau Chief Leslie Stimson contributed to this article. 🌐

FCC at 75

that have been held by Republican Deborah Tate, who left in December, and Democrat Jonathan Adelstein, who will be leaving for a post at the Department of Agriculture.

Genachowski is a technology executive and a former Obama Harvard Law School classmate.

Experts are divided in their opinions on whether a Democratic administration will be more hostile to the interests of commercial broadcasters.

One expert said judging what the powerful regulatory board might look like in the next few years could be as easy as looking back at the leadership style of Genachowski's fellow Democrat, former Chairman Reed Hundt. Genachowski in fact served as chief counsel to Hundt from 1993–1997.

"My recollection of the Hundt era is one of letting the marketplace decide and freeing up spectrum for new entrants," said Garrison Cavell, president of broadcast engineering consulting firm Cavell, Mertz and Associates.

"Perhaps we might see more policy initiatives and less regulatory strictures than before. And a focus on increasing marketplace competition and diversity in stakeholders."

Cavell said he thinks the agency's focus will shift to broadband initiatives, new media digital evolution and network neutrality.

"This administration has an obvious need to bolster the economy and has made it clear it wants to make broadband more accessible. I believe Internet and broadband are clearly the darlings of this administration and the new chairman."

Observers expect the commission to become more transparent in its decision-making process than it had been under Chairman Kevin Martin, whom many

From left: Commissioner Jonathan Adelstein, Acting Chairman Michael Copps and Commissioner Robert McDowell

> They need to re-empower the very competent staff that remains at the agency.
>
> — Chris Imlay

feel micromanaged the agency.

Martin, who was chastised in a congressional report late last year for a heavy-handed and non-collegial management style, said several times during his tenure that he did not in fact micro-manage and defended the openness of his practices. In a statement in January announcing his resignation, Martin said

his philosophy "has been to pursue deregulation while paying close attention to its impact on consumers."

However, transparency is only part of the challenge at the agency, said John Crigler, a communications attorney with Garvey Schubert Barer who specializes in public media.

Re-empower staff

"The greater problem is efficiency. They need more than just five people making decisions. That's quite a waste of the FCC's seven bureaus and approximately 1,800 employees," Crigler said.

Chris Imlay, communications attorney with Booth, Freret, Imlay & Tepper P.C., said, "It's not fair to equate the new administration with an anti-business agenda or a liberal bias. I do hope the Democraticall controlled FCC might look harder at what is necessary to keep small commercial broadcasting companies com-

petitive with larger broadcast groups."

Imlay said he also hopes the commission will re-empower the competent staff that remains at the agency.

"The staff was often subject to unreasonable restraints in performing their jobs under the previous chairman. In essence they were paralyzed to do their jobs.

"It is difficult for radio broadcasters dealing with the FCC, because the decision-making on their issues has been concentrated on the Eighth Floor for far too long," Imlay said. "The staff in the Audio Division is, in general, a genuine pleasure to deal with. However, they are often hamstrung in addressing issues because of the need to obtain approvals from the front office, or the commissioners."

Imlay expects the commission's decision-making to become more "decentralized over the next four years" and "more of a collaborative rulemaking process."

Imlay, who also serves as general counsel for the Society of Broadcast Engineers, said the agency, which is working to develop a national strategy to get high-speed broadband into the hands of more people, must more forward to address the challenges of the new century.

"I believe broadband rollout will remain a focus at the commission — though I think the interests and concerns of licensed radio services have certainly taken a back seat in recent years to all things broadband."

Some analysts expect to see diversification of media ownership to be a priority under Genachowski upon his Senate confirmation.

Translator apps.

"How the new chairman goes about this is hard to fathom," said John Garziglia, communications attorney with Womble Carlyle Sandridge & Rice PLLC. "Any regulatory change that will truly result in a wider diversity of media owners will require dramatic changes in eligible buyers for stations now owned by the large groups. Even forced divestiture is not out of the question. The commission has a history of doing that with newspaper and broadcast station combos."

Several pending broadcast proceedings will likely receive a lot of focus from the commission, Garziglia said.

"The localism proceeding comes to mind right away. I expect that some aspects of localism, such as enhanced reporting requirements and possibly a variation on community advisory councils, will be enacted," Garziligia said.

Bringing the DTV transition to an orderly end and figuring out what to do with thousands of FM translator applications still pending from the 2003 filing window also will be priorities, Garziglia said.

"Once the questions surrounding the un-granted FM translator applications are resolved, the commission can move forward with the comparatively non-controversial rule change to allow FM translators to rebroadcast AM stations."

Besides ownership, another issue sure to be a hot topic in this administration is the future of the Internet and whether the commission should regulate a medium that owes much of its success to a lack of regulation, analysts said.

"The Internet has thrived without regulation. My opinion is that if regulation is needed, then the FCC will look to Congress for guidance. I don't expect the FCC to regulate it just because they can," Garziglia said.

Expect the agency to seek out and

◆ N E W S W A T C H ◆

CHANNEL 6: Noncom reserved-band FM applicants need to protect TV Channel 6 as long as those Channel protections are in place — regardless of the date a potentially impacted TV station ends its analog service. That's the word from the commission, which says it's received lots of inquiries about how long radio must adhere to Channel 6 protections, as well as applications from some who assumed in their calculations that those protections would go away this past Feb. 18, the day after the original DTV transition deadline. The Media Bureau said other NCE FM applicants have asked for waivers of the Channel 6 protections based on the premise that Channel 6 allotments will be vacated once TV goes all-digital. In order to be clear, the Media Bureau says it will dismiss applications that don't satisfy Channel 6 protection requirements unless the paperwork includes a letter of consent to a potentially affected Channel 6 station. The consent must be unconditional.

KAGAN FORECASTS DECLINE: Radio and TV revenues will continue to fall in 2009 but are expected to regain some ground over the long term,

according to SNL Kagan's updated "Radio/TV Station Annual Outlook." In 2008, the broadcast sector suffered deep declines as the recession intensified, with radio revenues down 10.0 percent to $17.7 billion and local and national spot TV ad revenues dropping 6.9 percent to $20.1 billion. Kagan estimates 2009 revenues will slide even further, with declines of at least 15.0 percent for radio and 15.7 percent for TV stations anticipated. Kagan forecasts a turnaround in 2010, with modest growth through 2013 offsetting some of the declines of 2008–2009.

ROYALTY BATTLE: Virginia Democrat Rick Boucher, chairman of the House Telecom Subcommittee, says it's time for terrestrial radio to get to the negotiating table and talk to the record labels, artists, and other industries, like cable and satellite, about performance royalties. "The votes exist today to pass a simple royalty on terrestrial radio. That bill could pass the House," said Boucher. Steve Newberry, chief executive office of Commonwealth Broadcasting and chairman of NAB's Radio Committee, told Radio World that, instead, the negotiations

that need to take place are the ones between the record labels and their artists. "We're providing millions in dollars in promotion."

"This is like World War I," a senior NAB official told Radio World, saying the association is telling members to prepare for a five-year battle on this issue, which actually began a year ago.

87.7 FM in PPM: Effective with the April 2009 report period, Arbitron is including the aural service of Channel 6 low-power TV stations that operate on 87.7 FM in its audience estimates for the Portable People Meter. The additional stations must meet minimum reporting standards, be licensed by the FCC and be marketed exclusively to radio listeners. The programming must be audio-only programming or otherwise unaccompanied by visual advertising content. These stations are authorized by the FCC to carry video content receivable on analog television, in addition to audio programming receivable on FM radios — although they carry no visual advertising content and promote their programming to radio listeners, rather than to television viewers.

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Photo: Jonathan Tichler/Metropolitan Opera

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Audemat

European products have had a tough time here due to the low value dollar. Now that things are moderating, we're seeing more Euro codec activity."

Another competitor said APT had an aggressive sales force but has developed little traction in the United States. "Their codec products have typically been priced higher with fewer options," the source said. "However, APT has made some gains in the larger multiplexer category in this country, specifically targeting Harris' dominance with its Intraplex product line."

Harris officials declined to comment on Audemat's purchase of APT's broadcast division.

The Audemat Group is privately owned. It has 100 employees at its headquarters in southwestern France. Audemat executives said their company has been working towards providing turnkey solutions throughout the broadcast chain.

"The APT product line, which comprises award-winning IP audio codecs and multiplexers, complements our existing product line," said Bruno Rost, president of the Audemat Group. APT's audio codecs are used to deliver audio for AM, FM, HD Radio and multi-channel applications over a variety of telecom links including IP, ISDN, X.21 and E1/T1.

APT split biz ops

APT (Audio Processing Technology) was founded in 1989. Noel McKenna and Jon McClintock led a management buyout in 2005 from its former owner, Solid State Logic.

Earlier this year the company, based in Belfast, Ireland, split its business operations. It designated its broadcast equipment division as APT Ltd. while naming the parent holding company and licensing division APT Licensing Ltd. The latter is responsible for licensing the proprietary apt-X algorithm technology.

Now Audemat has acquired the broadcast hardware line, although those products will continue to be branded as APT. In essence, that portion of APT will become a division of Audemat Group, Rost said.

"The APT Ltd. team will keep responsibility of designing hardware and software codecs. However, some new products will be co-designed by Audemat and APT staff," Rost said.

APT had 38 employees working in management, engineering, sales, marketing and administrative staff at its Northern Ireland facility. Rost said he expects all of them will remain in place, even though the reorganization is not yet complete.

Rost specifically mentioned Kevin Campbell, APT's former vice president of North American operations, Mark Weir and Greg Massey as executive directors who will remain with APT Ltd. and lead the division.

The purchase saves Audemat years of R&D into developing its own line of codecs, Rost said.

"It takes years to build a reliable codec and even longer than that to build relationships with customers," Rost said.

Audemat has a recent history of pursuing expansion opportunities. It acquired Aztec and its RDS encoders and monitoring equipment in 2005. It added Ecreso transmitters in 2006; the next year it purchased Nortek, a small company dedicated to TV monitoring activities, Rost said.

APT and Audemat dealer networks are complementary and present some synergies, Rost said. Both companies have U.S. subsidiaries. Rost said the Audemat office in Miami will oversee developing sales in North America and South America.

APT's North America sales office in Watertown, Mass., remains open "for now," Rost said. The company didn't answer a query about who runs that office, and we reported recently that Campbell returned to Belfast. APT products will continue to be manufactured at its facility in Northern Ireland.

Rost acknowledged that the world economy is in ill health but said Audemat realizes the economy goes in cycles and hopes better times arrive soon.

"We purchased APT knowing that we must prepare for the end of the crisis during the crisis," he said.

Licensing

McClintock, president of APT Licensing Ltd., said the timing of the sale was good for he and business partner, McKenna, and the other shareholders, including Crescent Capital and Trinity Venture Capital, which are based in Ireland.

"Both businesses have a fundamentally different model in terms of business cycle. Licensing is very long-term and based around design time cycles, whereas hardware can be more immediate. As our codecs became more successful, we found that the licensing side suffered simply due to a lack of time resource."

McClintock said he and McKenna will continue to invest in audio compression R&D and step up its focus on efforts to license APT's proprietary algorithm apt-X into consumer electronics applications and professional audio markets.

"The money raised from this sale will allow us to invest into new algorithms, which will be exploited for radio, embedded audio for TV and consumer applications like Bluetooth," McClintock said. McKenna and McClintock have been with APT since 1994.

The technology now known as apt-X was developed in the 1980s by Dr. Stephen Smyth, who was studying for a doctorate at Queen's University, Belfast. Funding from the university and Solid State Logic in England was used to establish the company, according to its online history.

The original apt-X algorithm became known as Standard apt-X, McClintock said. The original algorithm was 16 bit 4 sub band ADPCM codec with a 4:1 compression ratio and a latency of 2.3 milliseconds. The company then launched Enhanced apt-X in 2000, which he said had better transient performance characteristics.

"Enhanced offered 16, 20 and 24 bit word depth with a 4:1 ratio but with improved latency of 1.98 milliseconds," McClintock said. "We launched apt-X live in 2007 with a compression ratio of 8:1 and retained low latency figures of under 2 milliseconds. It's far more bandwidth efficient."

McClintock said APT Licensing Ltd., which has found a niche in audio over IP, will launch apt-X Lossless by mid-2009. It has 15 employees and will continue to share the same 20,000-square-foot facility with APT Ltd. in Belfast. ●

> **The money raised from this sale will allow us to invest into new algorithms, which will be exploited for radio, embedded audio for TV and consumer applications like Bluetooth.**
>
> — Jon McClintock, APT Licensing Ltd.

NEWS WATCH

BROADCAST ELECTRONICS BIRTHDAY: BE is turning 50 this June. The company was founded in 1959 and built its early business around the broadcast cart machine.

ADELSTEIN: The White House has nominated FCC Commissioner Jonathan Adelstein as administrator of the Rural Utilities Service in the U.S. Department of Agriculture. The administration said Adelstein will oversee handing out about $2.5 billion in grants and loans to build-out high-speed Internet services in rural areas.

AT&T CRUISECAST SUPPLIERS: RaySat Broadcasting Corp. has chosen six suppliers to help deliver the AT&T CruiseCast service to vehicles this spring. CruiseCast promises to bring 22 satellite TV and 20 satellite radio channels to the rear seat entertainment system; it has not yet announced its radio program providers. Suppliers include IntelSat, ST Electronics, Hyundai Digital Technology, NDS, Synchronoss and RaySat Inc.

ARBITRON: Finding that its previous expense cuts were not enough, Arbitron trimmed about 10 percent of its full-time staff, about 110 people, in March. It's also cutting operating expenses. Arbitron expects to realize more than $10 million in savings in 2010 from the workforce and expense reductions combined. Earlier, Arbitron moved its corporate headquarters from New York to Columbia. The company already had 767 full-time employees in Maryland, or about 71 percent, of its 1,100 full-time workers worldwide.

FCC at 75

place more value on engineering solutions in the decision-making process, according to several analysts.

"Updating the FM and AM rules to reflect the realities of the digital world is a top priority. I think the new administration will appreciate the value of technology and education when setting policy," said Clarence Beverage, president of Communications Technologies Inc., a firm specializing in broadcast engineering and telecommunications design services.

> **The focus will likely shift to broadband initiatives, new media digital evolution and network neutrality.**
>
> — Gary Cavell

Others said the commission will likely base more of its decisions "on the best-available, scientifically-valid evidence" when making regulatory policy and "not ideological predispositions."

Jack Mullaney, president of Mullaney Engineering Inc., said, "The digital revolution and its many expanding outlets are going to be the greatest challenge facing a new FCC chairman. I'm not even sure how many of the FCC's commissioners can spell AM, FM or TV. If it isn't new wireless technology it is a low priority."

Another consulting broadcast engineer expects the "gotcha mentality" of the agency's Enforcement Bureau to
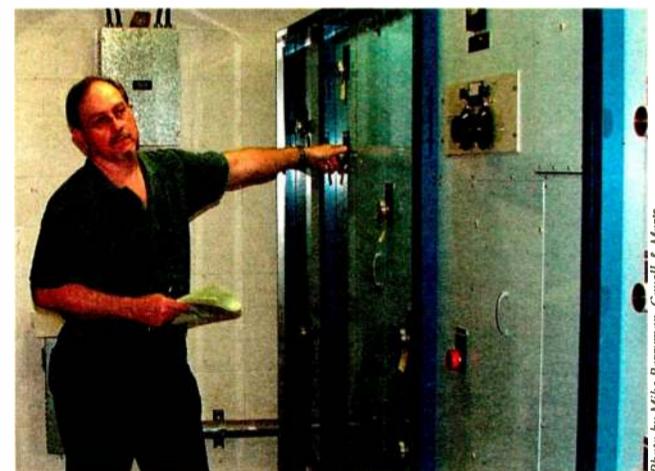
Gary Cavell. 'Internet and broadband are clearly the darlings of this administration and the new chairman.' (He is shown making adjustments to the phasor system at AM station WMAL in Washington.)

fade away under a new chairman.

"Station inspections that result in large monetary forfeitures for rule violations frankly don't have much relevance any longer," this observer said. "It creates an adversarial relationship between the regulators and the regulated."

Crigler of Garvey Schubert Barer thinks the industry will see new regulations and tougher enforcement of existing rules in the short term.

"However, I'm not convinced that the new commission will be more friendly to non-commercial broadcasting and more hostile to commercial broadcasting. With two new commissioners yet to be seated, it's hard to guess how it will come out on close questions," Crigler said. He made that comment before Adelstein announced his plans to leave; now the number of new incoming faces will be three. ●

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Yes, You Can Be the Station Hero

Simple Tricks Often Are the Ones That Give the Most Satisfaction

by John Bisset

I bet you'd agree that one of the most enjoyable things about being a broadcast engineer is your problem-solving ability. You're the one the station staff turns to for fixing the studio equipment or diagnosing a laptop or printer failure. You seem to have all the answers ... or you'll find them.

Here's a tip along those lines. Fig. 1 shows a typical white board. It could be located in your shop, but more likely it's in your station conference room.

Some dummy has left a permanent marker in the white board tray and the marker ended up being used on the white board. All the rubbing in the world won't get that marker ink off the white board.

A lost cause? No.

You can buy a liquid cleaner to remove the permanent marker; but here's a better idea, one that will also save you a trip to the office supply store.

Take a white board marker and carefully trace over the permanent marker, as shown in Fig. 2. It doesn't matter which color; just cover the permanent marker ink with the dry marker ink.

Then take a cloth or the white board eraser to it, and, presto! As you can see in Fig. 3, the mark is gone.

You'll look like a hero in the eyes of management, saving them the cost of a white board.

You may not be at the station when the problem occurs, so pass on this trick to the office manager or administrative assistant. Show him or her it really does work and share your knowledge.

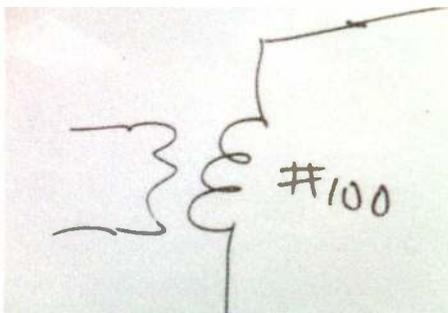Thanks to my associate Wendell Lonergan for helping demonstrate this trick.

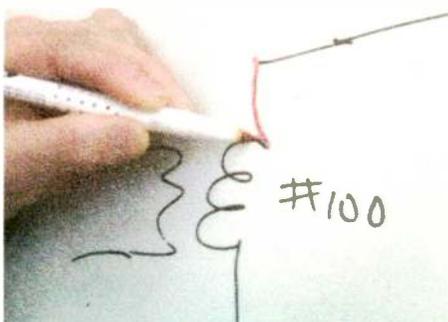Fig. 1: Oh no! Permanent marker on the station white board? But before you replace the board ...

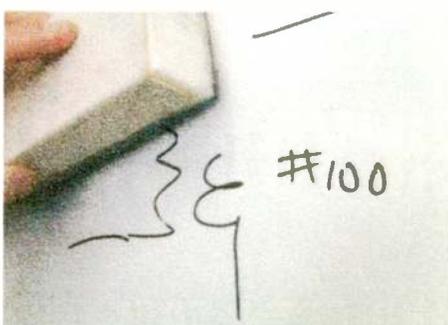Fig. 2: ... carefully trace over the permanent marker ink with a whiteboard dry marker ...

Fig. 3: ... wipe the board clean, and take a bow.

★ ★ ★

Nothing endears a customer to a company like keeping them informed *after* the sale.

We could all name a handful of companies that do this. The folks at Telos/Omnia/Axia would definitely be on the list.

Clark Novak puts together an informative e-newsletter that you should be getting, even if you're not a customer. In a recent issue, Clark outlines the importance of setting optimum input levels on

> **Ed Brouder**
>
> **maintains a remarkable library of radio airchecks.**

an Omnia processor — and it's not done with steady-state tones.

With normal program audio, the Input Gain Master should be adjusted so that the input bargraph meters are hitting from about −15 to −12 dBFS on regular peaks. These are true peak-reading meters, so they will not read correctly on steady-state tones.

The Master Drive control on the Omnia 5EX, 6EX and 6EXi (located after the input bargraph meters) should be left at 0.0 dB if the reference 0 VU level of the equipment feeding the Omnia is +4 dBu. This will provide optimum headroom throughout the Omnia.

The Master Drive will need to be adjusted if your system's reference level is not +4 dBu. For example, a setting of −4.0 dB would be used if your reference level is +8 dBu, and +4.0 dB if your reference level is 0 dBu.

In a recent e-newsletter, Clark included the following from fellow New Hampshire resident and Saga Communications historian Ed Brouder.

Ed has a remarkable library of radio history — some 4,800 airchecks — all searchable at his Web site, *www.manfrommars.com*. Did you grow up listening to Greaseman, B. Mitchell Reed on KFWB, or Johnny Knox on WQAM? Get a taste of nostalgia from this site.

His prices for dubs are fair; give it a try and revel in the warm glow of vacuum-tube goodness.

Clark Novak can be reached at *cnovak@axiaaudio.com*.

★ ★ ★

It may be spring, but some folks still have to deal with cold weather — especially atop mountains.

Here in New Hampshire, the deep freeze continues well into May some years.

Rick Hunt, corporate engineering manager for Entravision Communications, passed on an example of Mother Nature's wrath.

Taken by Los Angeles Market Chief Eugene McEfee, the photo in Fig. 4 is from December. The site is on Heap's Peak, where Entravision's KLYY(FM) is located. Heap's Peak is at an elevation just under 7,000 feet, and is about a couple hours' drive from downtown Los

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budget looks like this...

give us a call.

JETSTREAM ((MINI

A reduced equipment budget doesn't mean you have to cancel your studio project, or even give up the features you want. Logitek's cost-effective IP audio solutions give you the flexibility you need for audio routing, distribution and mixing – for about a third of the price you've come to expect. Our advanced hardware designs and networking protocols not only make your project less expensive, they make it easier to implement.

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Call us at **800.231.5870** or check out **JetStream IP Audio** routing solutions at **logitekaudio.com**
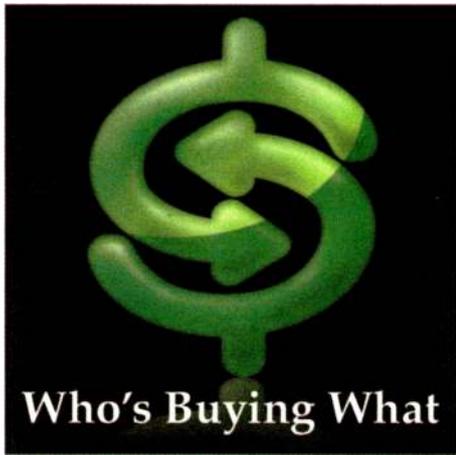
The **Specs Howard School of Broadcast Arts** in Southfield, Mich., upgraded its **ENCO** DAD digital audio automation system to ENCO's new Presenter system. Specs Howard also increased its workstation number, from three running the earlier DAD to 24 workstations running Presenter. Chief Engineer Bob Burnham said the school has been using the DAD system for 10 years. ...

Mid-West Family Broadcasting chose the **OMT Technologies** iMedia-Touch automation system for installation at 18 of the group's radio stations. The package will be used at stations in the Springfield, Mo., La Crosse, Wis. and Madison, Wis. markets. Corporate Chief Engineer for Mid-West Family Broadcasting John Bauer called the project a "major upgrade" to his company's broadcast automation systems. ...

Neutrik USA supplied XLR cable connectors, model NC3MX and NC3FX, to the Department of Music, TV and

Radio at **Long Beach City College** in California for use in its Studio Maintenance course, included in the two-year program curriculum. Charles Gutierrez is college instructor of recording and engineering there. LBCC classes include digital audio music, post audio production, studio recording, music performance, live sound, audio theory and maintenance, among others. ...

DLA selected **BroadView Software** to provide large-scale distribution of video on demand and pay-per-view content in the Latin America region. ...
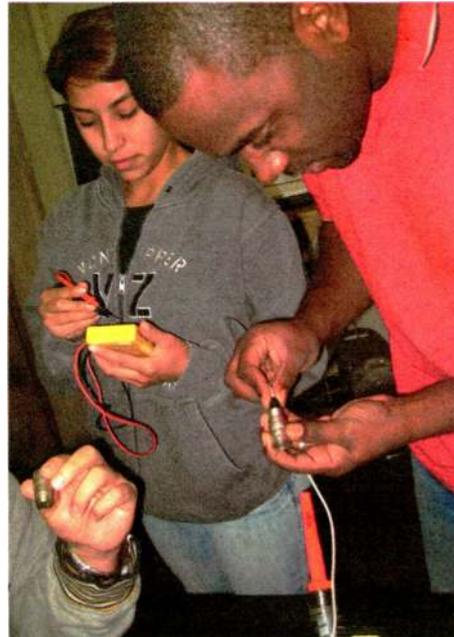
Students at Long Beach City College work with donated Neutrik connectors.

TargetSpot, an Internet radio advertising company, announced contracts this winter with **Air America Media, Millennium Radio, Access 1 Communications, Sandusky Radio, Stephens Media Group, Simmons Media Group, Ocala Broadcasting** and **BlogTalkRadio**. The company acquired Ronning Lipset Radio in October. ...

Dalet Digital Media Systems said the **Arabian Radio Network** deployed Dalet Radio Suite across its broadcast operations. The DaletPlus Asset Management engine provides an infrastructure for content management and distribution across ARN's nine radio channels and its web operations. ARN produces three Arabic-language channels, three English-language channels and three international channels, primarily Hindi. ...
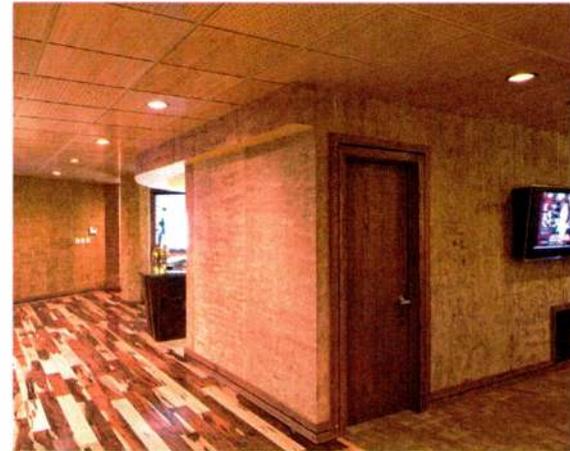
Chicago Recording Co. used BioLine Wood Ceiling Tiles from **pinta acoustic** for the ceilings in a remodeled facility that features a "Brazilian" look. It picked a tree bark veneer for the walls, a patterned macchiato pecan wood plank flooring and emerald green granite accents. Chris Shepard is general manager of Chicago Recording. ...

APT said its WorldNet Oslo

STL system was picked as the core audio platform for an STL network by Hong Kong public broadcaster **RTHK**. Five WorldNet Oslo units were supplied by Harvest Scientific & Tech. Co. ...

Clear Channel's Portland, Ore., cluster installed a **25-Seven** Program Delay Manager. The PDM interfaces directly with an Axia audio network and is being used on KXJM(FM). The profanity delay features were deployed by Station/IT Engineer Curt Brown and CE Chris Weiss.

Send news of notable projects to radioworld@nbmedia.com, *with Who's Buying What in the subject line.*

Pinta acoustic tiles were used for a Brazilian theme at Chicago Recording Co.
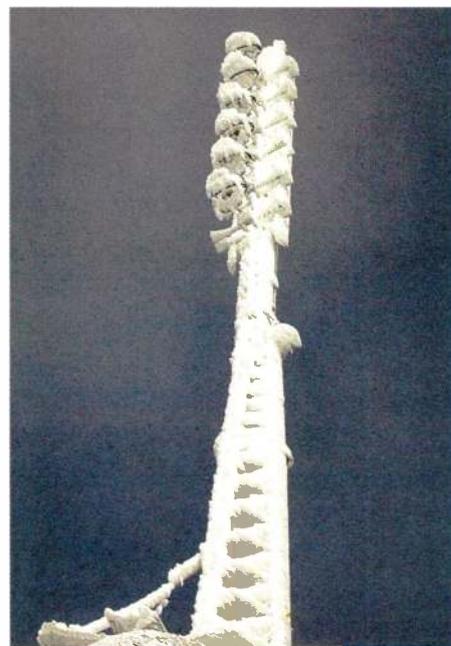
Ice

Fig. 4: Moisture and cold temperatures wreak havoc at mountaintop sites.

Angeles. It's high enough and close enough to the Pacific Ocean that the site receives storms with massive amounts of water content at temperature just below freezing.

These, of course, are conditions perfect for icing. The temperature rarely stays below freezing for longer than a few days, so the ice does not stay around long. But it is a repeatable condition.

Fig. 5 shows what greeted Eugene in February!

The antenna in Fig. 4 is a PSI Broadcast Power-Tiller with heaters. It was a new antenna that was purchased from PSI
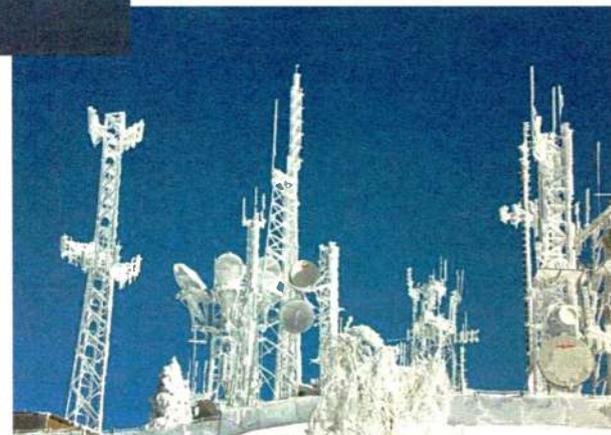
just to avoid this problem. The antenna heaters were turned on the day before the storm, and their operation was confirmed by the current draw. Obviously, the heaters were ineffective, and Rick has been working with PSI on a solution.

A curious observation is that they have noticed no difference in the accumulation of ice on this antenna with heaters as compared to the unheated antenna they'd used for years.

The peak VSWR was 2.57:1 and they needed to reduce TPO from 18 kW to about 5 kW just to stay on the air. Talk about being at Mother Nature's mercy.

Thanks, Rick, for sharing the situation, and for Eugene's pictures. Eugene McEfee can be reached at emcefee@entravision.com. Rick Hunt's e-mail is rhunt@entravision.com.

Got a story to tell about how you're dealing with Mother Nature? My e-mail address is below. Make sure your pictures are of the highest resolution!

John Bisset has worked as a chief engineer and contract engineer for 39 years. He was the SBE's Educator of the Year for the year 2006. Reach him at johnbisset@myfairpoint.net. *Faxed submissions can be sent to (603) 472-4944.*

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

Fig. 5: Mother Nature can pose an equal opportunity menace to broadcasters.

EASY
So easy to set up, anyone can do it in just a few minutes
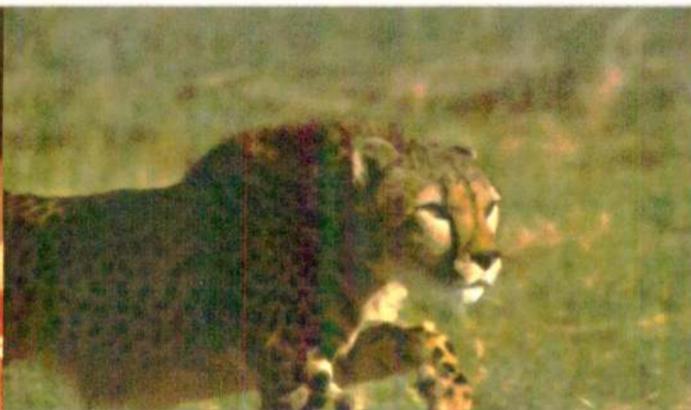
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Built to withstand the rigors of onsite obstacles with unmatched stability

ANYWHERE
Broadcast anywhere with the intuitively designed Zephyr/IP Mixer

Locks In Your IP Connection Where Others Fail

Engineered to use public IP networks and mobile phone data services, the Z/IP Mixer combines the excellent performance of the original Zephyr/IP with the convenience of a digital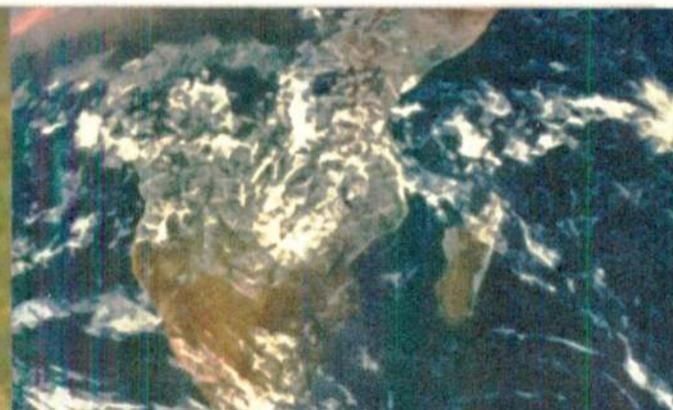 four-channel stereo mixer. Designed to deliver high-quality audio transmission with low delay, even over less than perfect networks. Enclosed in a road-ready portable chassis, built to go wherever the action is.

Z/IPMIXER: Lock it in.

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# PowerStation™: the new console system from Axia.

Because there's no such thing as too much uptime.

All stops removed • Twenty years from now, you'll have forgotten this ad. But you'll still have your PowerStation, the full-featured one-box IP-Audio console/router system hardened with **industrial-grade components** and redundant power capabilities. Tough enough to take a football to the groin and keep on going. PowerStation **minimizes setup** and **maximizes "bang for the buck."** Engineered without compromise for broadcasting without interruption.

Easy as π • PowerStation combines a console DSP engine with audio and logic and a network switch, **all in one box.** As its name implies, there's a whole lot o' muscle inside that burly frame, but that doesn't mean it's complicated. In fact, setting up PowerStation **couldn't be easier:** connect your studio gear with standard CAT-5 cables, connect your console with just one cable, name your sources and set preferences with a browser, and you're ready to rock. PowerStation makes building studios about 3.14 times easier than ever.

GPI Oh! • **GPIO ports are built in** to PowerStation — no breakout boxes or add-on converters needed. One day, you might not even *need* logic ports: more and more products from companies like 25-Seven Systems, Audio Science, ENCO, Google Radio Automation, International Datacasting, Omnia Audio, Radio Systems and Telos (to name just a few) use the Livewire™ standard to send their audio and logic control directly to Axia networks over a **single CAT-5 connection.**

Everything's included • Yeah, we said *everything*: PowerStation combines half-a-dozen essential tools into one compact unit. No hidden extras to buy, no "gotchas" after purchase. Inside that muscular chassis you'll find a **bulletproof mixing engine** capable of handling consoles up to 40 faders, a beefy power supply (with optional **redundant power**), machine control ports, and **audio I/O**, all in one box. And of course, since it's from Axia, the IP-Audio experts, a studio built with PowerStation can stand alone — or it can become a part of a large network quite easily. Thanks to **PowerStation Simple Networking,** you can daisy-chain up to 4 PowerStations directly for easy multi-studio installation without the need for a separate core switch. Just another way Axia makes IP-Audio easy.
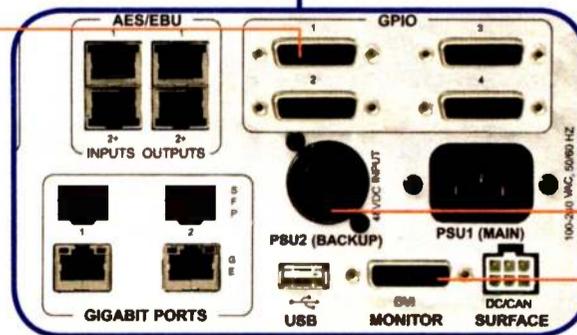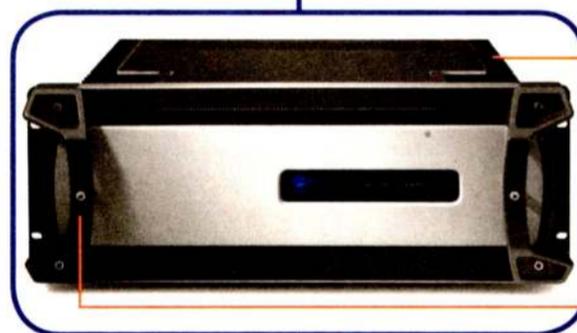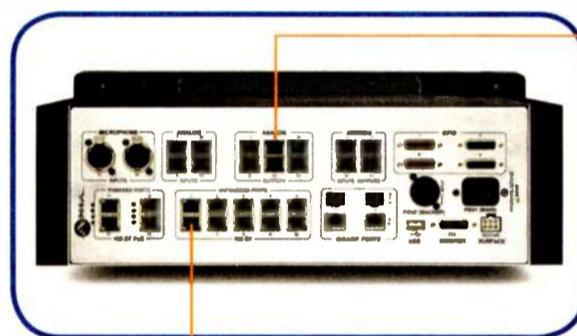
You're covered • Axia has the most comprehensive warranty in the industry — **5 years parts and service**. And (not that you'll need it), **free 24/7 technical support**, 365-days-a-year. We've got your back, my friend.

E-I-E I/O • Finding space in the equipment racks is like living in a barnyard: too many chickens, never enough coops. So our team of obsessive designers fit **an entire studio's worth of inputs, outputs, logic and network connections** – plus an advanced DSP mixing engine and a massive console power supply – into just 4 RU. There's inputs for 2 mics, 4 analog inputs and 2 AES/EBU inputs, with 6 analog and 2 AES outputs. 4 GPI/O logic ports round things out. Want even more? Just connect the PowerStation Aux to instantly *double* the I/O — or plug some Axia Audio Nodes into its **built-in Ethernet switch.**

Fan free • PowerStation is **silent and fanless**. Because studios today are already full of PCs, laptops and playout servers clicking, whirring and generating heat — who needs more of that? Not only is there no in-studio noise with PowerStation, those **big extruded heat sinks** are just plain cool. No pun intended (or maybe it was. We're like that, you know).

Built like a tank • Remember when consoles were built to last? We do. At Axia, we're all about the long haul. **There are no compromises:** PowerStation uses only best-of-the-best components. Like studio-grade Mic preamps and A/D converters. A rigid, steel-framed, EM-tight chassis that shrugs off RF like Walter Payton brushing off tackles. An industrial CPU designed for high reliability in harsh environments. Beefy extruded heat sinks. Big, brawny handles to make rack-mounting easy. (And it looks cool, too.)

Redundant power redundancy • The power supply is the heart of any broadcast equipment, right? That's why PowerStation is **hardened against failure** with a **super-duty power supply** that sports enough amps to power an arc welder. And for those of you who like to wear a belt *and* suspenders, there's even a connection for **redundant auxiliary backup power** – with automatic switchover, naturally – that kicks in if it's ever needed.

Screen play • Yep, that's a DVI connector. **Your favorite monitor** – standard or widescreen – plugs in to present the console operator with Axia's "so easy an overnight jock could do it **info-center display.** Meters, timers, fader assignments, mix-minus settings and more, all on-screen, on-demand.

Element 2.0 •

With more than 1,000 consoles already on the air, Element is a huge hit. And now, thanks to suggestions from our clients, it's better than ever. Element 2.0 has cool features like Omnia™ **headphone processing** presets to give talent that "air sound", **super-accurate metering** with both peak and average displays, **one-touch phone recording** with automatic split-channel feed, **automatic mix-minus** for every fader, an eight-channel **Virtual Mixer** that lets you combine multiple audio streams and control them with a single fader, and metallic bronze or silver module overlays. And we haven't even begun to tell you about Element's **Show Profiles** that instantly recall talent's favorite settings, its **built-in Telco controls**, fully-integrated **talkback/IFB** and **Mic processing** by Omnia. And durable? Element is nearly indestructible, ready to take whatever pounding ham-fisted jocks dish out and keep going. You want examples? Element's **avionics-grade switches** are rated for more than two million operations. What look like ordinary rotary controls are, in reality, **bullet-proof optical encoders** — no wipers to wear out or get noisy. The silky-smooth **conductive-plastic faders** actuate from the side, not the top, so dirt and grunge stay out. The **high-impact Lexan** module overlays have their color and printing applied on the back, where it **can't wear or chip off**. The frame is made from **thick aluminum extrusions** that are stronger than truck-stop coffee. To find out even more about Element, visit **AxiaAudio.com/Element/**. Grab some coffee and prep for a good, long read — remember, our marketers get paid by the word.

Come together, right now •

Now that you know what you can do with PowerStation, let's build a studio. The diagram below shows how a typical Talk Studio might look. Mics and headphone feeds plug into the built-in Mic inputs and Analog outputs... your playout PC, using the **Axia IP-Audio Driver** for Windows®, connects to a built-in Ethernet port... and so does the Telos Nx12 Talkshow System (which sends 12 lines of caller audio, mix-minus and take/drop/next commands over **one skinny CAT-5 cable**). Send a **backup audio feed** to your TOC for extra peace of mind. And after all that, there's still plenty of I/O left to plug in the turntables for the Saturday night Oldies show.

The standalone network •

You want your console to be more than just reliable — you want it **built like a battleship.** You want the absolute peace of mind that comes from knowing your gear will **never let you down.** And if you take one studio down for maintenance, you want the rest to be completely unaffected. So we designed PowerStation to be the world's **first networked broadcast console that doesn't** *need* **a network.** It's completely self-contained: sure, it plays nice with others, but unplug its network cable and it keeps right on truckin'. Build just one studio, or a dozen, at any pace you choose — your PowerStation network is ready to expand when you are.
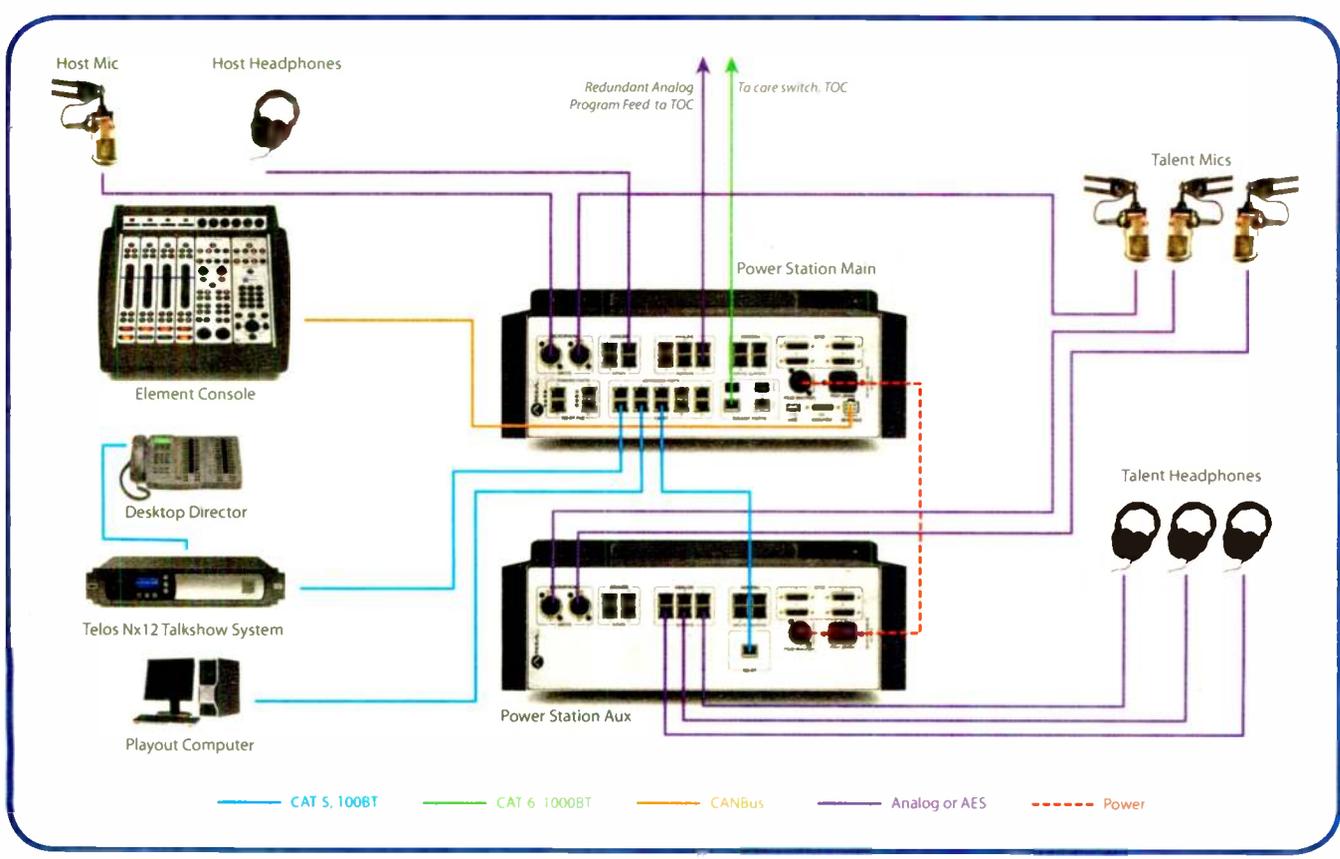
AxiaAudio.com

The Radio EPG Proposal Explained

Part 2 of Our Series Considers a Flexible and Practical EPG Delivery Architecture Proposed for U.S. Radio Broadcasting

The Big Picture

by Skip Pizzi

In the last issue we introduced the concept of an electronic program guide (EPG) for U.S. radio broadcasting, and the existing challenges to its implementation. This time we'll explore some of the recommendations addressing those inherent difficulties included in a proposed Radio EPG system developed under the auspices of the NAB FASTROAD technology advocacy program. (As I noted last time, I am a consultant to this development effort.)

The development team examined a wide range of possible schemes for compilation, delivery and display of a comprehensive radio EPG, considering the entire ecosystem in its scope. Part of the team's credentials included deep experience from the world's only already deployed radio EPG system (in the U.K. DAB environment), providing some rare and helpful insight. Nevertheless, differences between the DAB and IBOC broadcasting models still made the U.S. effort uniquely challenging.

As is often the case, there is no single solution identified providing optimal results for all engaged sectors, but there are some likely acceptable compromises proposed that may create a successful approach.

To improve likelihood for success in this respect, a key design goal of the proposal includes maximum flexibility across multiple methods, allowing system designers, broadcasters, equipment manufacturers and consumers to choose their respective preferences while retaining interoperability. This implies a minimization of mandatory features, and a maximum of compatible options, such that the system can be quickly established yet scale adequately toward a foreseeable future where EPG provides rich, multiplatform functionality.

Of course, with any such development, ultimate success — or even initial buy-in — can only be achieved if all necessary stakeholders see a potential benefit. Thus the proposed EPG system attempts to present a balanced set of advantages for broadcasters, receiver manufacturers and consumers alike.

Four-lane highway

The proposed system identifies four methods for delivering EPG data to receivers, any or all of which could potentially operate simultaneously in any radio market.

The most "traditional" approach acts like PAD/PSD, in that each station simply transmits its own EPG information in its own IBOC datacast, using a specified portion of the HD Radio Advanced Application Services (AAS) data transmission format identified by the iBiquity EPG specification. Since in this approach, each station serves only its own purposes, the delivery model is labeled *Parochial*. This single EPG datastream would include scheduling information for *all* material broadcast on the station, however, including any multicast services.

The advantage of this approach is that it allows an EPG-cable HD Radio receiver to quickly load the currently tuned station's EPG data (for main and all supplemental services simultaneously), but when a different station is selected, the process of loading that station's EPG data

must be repeated by the receiver. Further, if the device display were capable of showing a full-market EPG grid (as in the typical television EPG screen), the receiver would have to do all the heavy lifting of assembling and storing the EPG data from each station, one at a time, and eventually displaying the ultimate result. This will require more memory and more MIPS at the receiver, which violates one of the cardinal rules of media-format design stating that the higher-complexity requirements should always be placed at the transmit end, thus lightening the load at the receive end.

Addressing this point, a contrasting approach arranges for all stations in the market to feed their EPG data to one or more *Master Stations*, which carry the complete market's EPG in their IBOC

datacasts. The other stations in the market may provide a pointer to the Master Station(s), to allow receivers to know where to look for the currently tuned station's EPG data, if it is not already in the receiver's memory.

This allows the receiver to load the complete market's EPG fairly quickly, and display either the full-market grid, or the currently tuned station's data only, as the receiver allows and the user requires. To do this rapidly and seamlessly, however, the receiver will need either a second data-only tuner (as iBiquity envisions in its new v1.5 reference receiver design), or it will need to employ a background operation by which the receiver downloads the EPG data from the Master Stations during times when the device's (single) tuner is not

being used to listen to a station.

A variation between the two above methods is called the *Shared* model, which allows a number of possible configurations in which the full market's EPG data is carried by *all* participating stations in the market. For example, all participating stations in the market could carry at least some data for each of the other participating stations in the market.

This would enable the receiver to quickly capture the full market's EPG data whenever it was tuned to *any* station in the market. It would also not require the receiver to permanently store large amounts of data in expensive on-board RAM, since each station would continuously transmit the full market's EPG.

Making this approach more practical is a distinction between "basic" EPG

data — which includes program titles and times only — versus "advanced" EPG data, which includes program descriptions and perhaps other related data, links, etc. This allows a variation in which each participating station might carry only the basic EPG data for all the other stations in the market, adding the advanced data for its own programming only.

The downside of the Shared approach is that it puts a lot of redundant data on the air in any given market, and therefore could be seen as an inefficient use of broadcast bandwidth. Nevertheless, it makes for the best user experience and most inexpensive EPG-capable receiver design.

Another variant of this approach that might make sense in some cases is a "group-centric" sharing, in which a mul-

ti-station cluster in a market selects one (or more) station(s) in the group to carry EPG data for all the other stations in the group. This could be particularly advantageous for a group's AM stations, which have the least datacast bandwidth available, and yet might have the most EPG data to deliver, given their often highly program-oriented (e.g., news/talk, sports, ethnic, religious, etc.) formats.

Model	Description	Advantages	Disadvantages
Parochial	Each station transmits its own services' EPG data only.	• Only currently receivable stations are discovered • No proprietary information issues	• Slow to load full-market data at receiver • Receiver must continuously assemble market EPG on the fly
Master Station	One or more stations in the market carry EPG data for all stations in the market. Non-master stations in the market transmit "pointer" identifying the master station(s) carrying their EPG data.	• May be faster to load full-market data at receiver • More efficient use of market's datacast bandwidth	• Market data may include some stations not currently receivable • Requires data aggregation and unique hierarchy/management in each market • Possible proprietary information issues
Shared	Every station in the market carries some or all of the EPG data of every station in the market. (A variation allows one [or more] station[s] within a jointly owned/operated market cluster to carry EPG data for all the other stations in the cluster.)	• Fastest to load full-market data on all EPG-capable receiver types	• Proprietary information issues • Least spectrally efficient (redundant datacast) • Market data may include some stations not currently receivable • Requires data aggregation and distribution within market
Network	Stations transmit a pointer to a general EPG resource along with station's location data (and/or receivers use geolocation) to filter localized EPG data from a master database. Delivery of EPG data may be via non-broadcast path (e.g., wireless Internet).	• Fast to load full-market data • Market data optimized for current receiver location, so less likely to include stations not currently receivable. • Spectrally efficient	• Requires more advanced receiver features to fully benefit from this model • Requires data aggregation (and possible unique hierarchy/management and/or distribution in each market)

A summary of attributes for the four delivery models proposed for an HD Radio EPG system.

Finally, any system designed today must acknowledge current and future levels of media convergence. Thus the proposed EPG ecosystem also includes a *Network* model, by which a radio receiver device that also includes Internet access (or potentially any other/future data connectivity method) can download market EPG data via an alternative (online) source. This would potentially allow consumers to receive radio programming schedules for an entire market from a single, central source, even on devices that do not currently include radio receivers (such as PCs, 3G phones, online gaming platforms, etc.).

Such functionality could also provide earlier EPG returns to broadcasters, considering that it will take some time for

Jennings Rebuilds Its Sales Network

Steve Negrini

Supply Side is an occasional column featuring discussions with manufacturers and other suppliers. Steve Negrini is general manager of Jennings Technology.

RW: Jennings Technology was founded in 1942. Describe its history.
Negrini: Jo Jennings, our founder, was very interested in radio transmission at a young age. He was considered to be a fanatical ham radio buff. He knew a lot about glass work and had a friend who was a metals worker.

Jo opened Jennings Radio and shortly thereafter created the first vacuum dielectric variable capacitor. These capacitors were used to help tune the frequencies needed to operate the radio towers across the country.

The broadcast end market is, to this day, still a large market segment for Jennings Technology.

RW: The company was purchased not long ago.
Negrini: The previous owner, Danaher Corp., sold Jennings Technology to Thomas & Betts Corp. in July 2007. Jennings has a long history of providing highly engineered products under a leading brand, which is a perfect fit for Thomas & Betts.

Thomas & Betts brings both engineering and operational resources to Jennings that will allow us to expand our core product offering into new markets and across new applications that we haven't tapped into before.

RW: Are vacuum products in any way a growth industry?
Negrini: There are several end markets that offer growth potential for vacuum products, especially in the alternative energy segments. The solar market happens to be a great example. We also sell vacuum products into the air and defense markets, where spending is projected to grow over the next three years. Meanwhile we still see steady demand from the international broadcast industry.

RW: What is the biggest misconception people have about this type of product?
Negrini: I wouldn't call it a misconception but more of a misunderstanding of what makes a high-quality vacuum capacitor or relay. It is not just how much

vacuum you have in the unit, but just as important is the quality of every component and the process used to clean and finish every unit. The recipe we use to finish the surface of our product offers superior RF characteristics as compared to our competitors.

The use of Jennings products in the broadcast market dates back to 1942. We have thousands of capacitors that are still operating for well over 25 years. You can't get that type of field-tested performance data from any newer, so called "low-cost" producers. Let's face it, most of the seasoned broadcast engineers don't look at "low cost," they look at "total cost" over the life of the project, as they should. That's where we believe Jennings really shines over our competitors.

RW: Are there new or updated products at Jennings that radio engineers should be aware of?
Negrini: Yes, there are several new designs that you will see in our 2009 catalog. We actually developed a new variable capacitor in 2004, called the Max-Cap, capable of outperforming the life of our closest competitor 2 to 1. We have been slowly rolling this product out over the past several years, but we plan to make a big push on this product in the coming year. You can also expect to see further developments in the low-temperature space, as well as a few other surprises.

RW: How many employees do you have? Was staffing affected by the sale?
Negrini: We have a total of 75 full-time associates, all based in San Jose, the heart of Silicon Valley.

Our biggest organizational change after the acquisition was to restructure our team by product lines — that is, vacuum capacitors, vacuum relays and vacuum interrupters. This structure allows us to be more focused and more responsive to the specific needs of our individual customers for each product line.

RW: Often we hear that radio is old technology. Why is Jennings interested in radio broadcasting generally and what do you see as the radio industry's business outlook?
Negrini: The AM and shortwave systems are still being built and used both in the U.S and overseas. There had been a recent focus on the conversion to digital technology, but we still have thousands of installed capacitors that provide us with a significant MRO [maintenance, repair and operations] business. In addition, there are many applications for radio technology in defense and other specialty industries that we do not see going away any time soon.

RW: What else should we know about the company and its recent business changes?
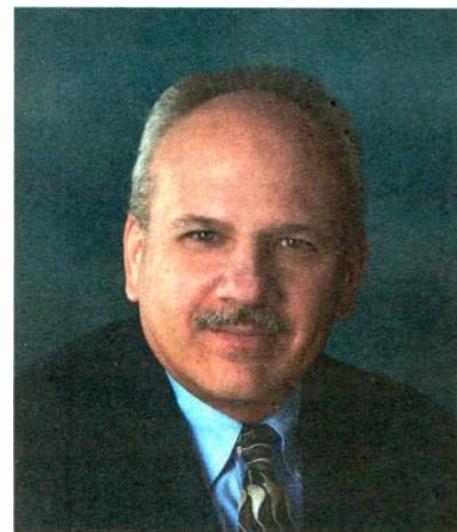**Negrini:** We are in the process of rebuilding our sales network. Our strategy is to hire manufacturer representatives in key locations in the U.S. Several territories have already been assigned. This team will focus on getting the Jennings product onto new specifications and driving home our increased sales effort.

We have also renewed and strengthened our agreement with our key U.S. and international distributors who are strong players in the broadcast market. Our team of manufacturer representatives will work with these channel partners to support and grow our broadcast customer base.

Internationally we have several strong distributors, including Richardson, who will support our push to maintain and grow our position as one of the top suppliers in the market.

We have a team of very smart, competitive and energized people who are eager to take Jennings into the future and to build off of our long and proud heritage as a premium supplier to the broadcast industry.

RW: We understand you are a car buff. What's it like to drive a super stock race car?
Negrini: It's what "getting shot out of a cannon" must feel like!

I race 1/4-mile drags in an NHRA Super Stock category SS/BS. The car is a 1987 Firebird Trans Am with a small block Chevrolet engine that produces over 750 horsepower. The elapsed time it takes to cover the quarter mile is 9.2 seconds at a speed of 148 MPH. The fun part is the first 1.2 seconds that it takes to travel the first 60 feet with the front wheels hanging 2 feet in the air.

The real fun comes from the preparation, travel, food and camaraderie with fellow racers and families. It's like being on vacation every minute you spend at the track. 🌐

EPG

▶ Continued from page 16

EPG-capable HD Radio receivers to proliferate in the marketplace, while online devices already exist in large and fast-growing quantities. So while this would not yet give the user the ability to directly tune to a program they find on an Internet-delivered radio EPG, it would allow listeners to find out when and where a particular program was being aired in their market, and then tune to it on any traditional radio.

In the next issue we will conclude our examination of the NAB FASTROAD Radio EPG proposal, and consider a few other challenges and opportunities that the system involves, and some details on its upcoming trials expected later this year.

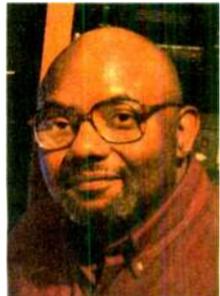*Skip Pizzi is contributing editor of Radio World.* 🌐
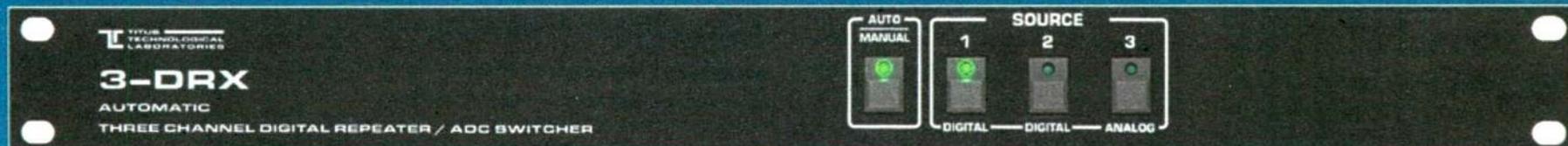
People News

Dan Dickey was named president of **Continental Electronics**. He takes that role from **Tony Grimes**, who remains as CEO.

Dickey joined Continental in 1986. His background includes engineering design, management and organizational development. ...

Dan Dickey

David Antoine

David Antoine was named chief engineer for **WBGO (FM)** in Newark, N.J. He reports to Operations Director David Tallacksen.

Antoine worked as assistant chief and IT specialist for WQXR(FM) in New York and has worked at WNCN(FM), WBLS(FM)/WLIB (AM), WOR(AM), WQHT(FM), WRKS (FM), and WQXR(FM)/WQEW(AM) in the New York market. He also is a former project engineer for DSI RF Systems. ...

Radio engineering veteran **Gregory Urbiel** was honored by the **Michigan Association of Broadcasters** with the Carl E. Lee Broadcast Engineering Excellence Award.

Urbiel is director of engineering for Saga Communications in Detroit. He began his career as a radio engineer in 1969 at WCAR(AM/FM) in that city. He helped design and move WWJ(AM/FM) and WYST (WJOI) to their current studios in Southfield, Mich.

Gregory Urbiel

"Since then Greg has worked for CBS Radio in New York and ABC Radio in Detroit before finding his current home at Saga Communications," the association stated. "He has also served as a member on the Engineering Committee for the Michigan Association of Broadcasters and the Southeast Michigan Operations Area Emergency Broadcast Coordinating Committee."

The MAB also honored **Don Backus** of ENCO Systems with its Associate of the Year Award.

Backus is vice president of sales and marketing at ENCO Systems, manufacturer of digital audio systems. He has been an associate member of the MAB and has served on its board for over eight years; he helped found the MAB Great Lakes Broadcasting Conference

Don Backus

and has served on the MAB engineering committee, the annual convention committee and the MAB board of directors as its first associate representative. ...

Eric Schecter returned to **CBS Radio** in Phoenix as DOE of its three-station cluster, a position he held previously.

He was director of engineering for Lincoln Financial Media's group of stations, in San Diego four four years; before that, he'd been in Phoenix as chief of KMLE(FM) for 16 years as well as being market engineering manager for the other CBS properties since 2000. ...

Eric Schechter

Kim Murphy Thomas was named general manager for the West Coast by **Dalet Digital Media Systems**. Thomas has sales and business development experience for companies including Quantel and Thomson Grass Valley, and most recently managed national key accounts in media and entertainment at Apple. ...

OMT Inc. named **Murray Bamforth** to its board to replace **Laurie Goldberg**. Bamforth has a background as a senior financial executive, CFO and external auditor. He heads his own management consulting practice. He has worked for Manitoba Telecom Services Inc., Bell West Inc. and Allstream Inc. Goldberg joined the board in 2005 but the company said he had to resign due to his other business activities, includ-

Jim Latimer

Federico d'Avis

ing a CEO appointment.

Jim Latimer returned to **Symetrix** in December as northern regional sales manager. Paul Roberts, director of sales, made the announcement. ...

Dielectric Communications named **Federico d'Avis** as sales manager for Latin America. He will coordinate sales in the region for television, radio and MobileMedia antenna systems. ...
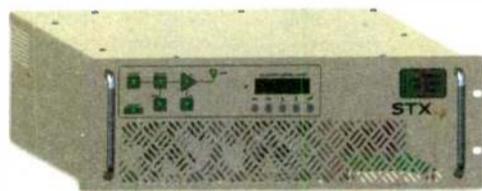
Abacast announced the appointment of **John Morris** and **Jim Kott** as co-presidents and **Kristy Surovic** as vice president of administration.

E-mail to radioworld@nbmedia.com, *with People News in the subject line.*

Spotlight On RF SAFETY

by Richard Strickland

Radio World offers a recurring series of Q&As with Richard Strickland of RF Safety Solutions, who has presented numerous public and private seminars on RF radiation safety and has written widely on the topic. The series is archived at radioworld.com.

Question: I have been reading about RF survey instruments and RF personal monitors and see the term "shaped-frequency response." What does that mean?

Answer: The shaped-frequency response technology patented by Narda many years ago has proven to be extremely valuable when measurements are needed at sites where there are multiple transmitting systems operating at different frequencies with potentially different exposure limits. It is also a key component of

What Is Shaped-Frequency Response?

the most popular RF personal monitors.

Most people are aware that the FCC's Maximum Permissible Exposure (MPE) limits vary with frequency. For example, the MPE limit for Occupational/Controlled exposure is 1 mW/cm^2 from 30 MHz to 300 MHz. The exposure limit is 100 mW/cm^2 below 3 MHz and 5 mW/cm^2 above 1,500 MHz. The MPE limits in between follow straight-line relationships and vary with frequency.

Because of this, it is often not enough to simply know the magnitude of the field strength. If you are at a site with a single transmitting antenna, such as an AM radio station, you don't have a problem — the limit is 100 mW/cm^2. Similarly, if you are at a site with only FM antennas, the limit is 1 mW/cm^2. The best probe sensors and the sensors in personal monitors correctly add the energy from multiple sources, and since the MPE limit is the same throughout the FM band, there are no problems determining compliance and safety.

Problems occur when antenna systems operate at frequencies with different exposure limits. An extreme, but very real, example is a site with an FM antenna mounted on an AM antenna tower. To make things simple, let's assume that these are the only two sources in the area. If you were to use a conventional probe that measured all frequencies equally and found that a particular area has an equivalent power density of 5 mW/cm^2, what

would that tell you in terms of compliance and safety? Not much!

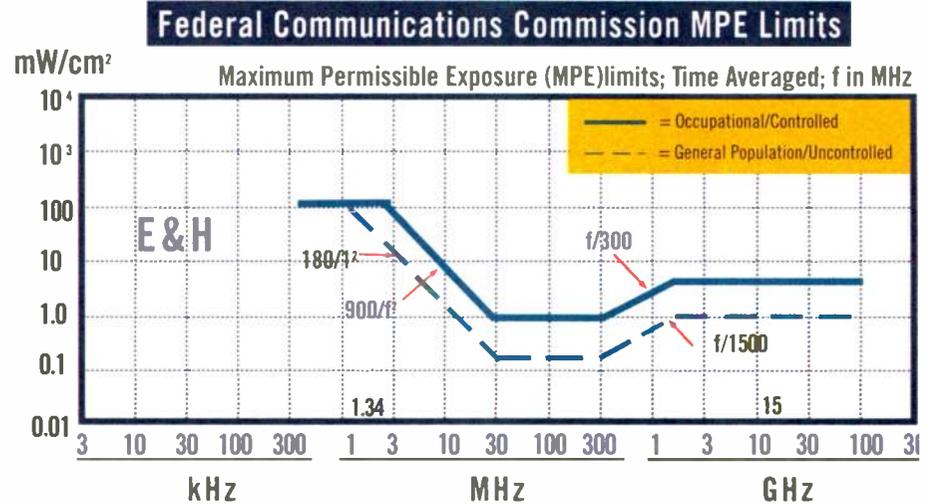The only way to asses the situation would be to power down one of the stations and make a measurement. Then,

you could use the differential to apportion the energy between the AM and the FM station. But if you don't do that, you have no way of determining the contribution from each station.

Try it

Let's take two versions of this extreme example and do some simple math.

In the first situation, assume that the contribution from the AM antenna is 4.9

mW/cm^2 and the contribution from the FM antenna is 0.1 mW/cm^2. The area is evaluated by converting each of the values to a percentage of the MPE limit and then adding the two percentages. In this

case, you get 4.9 percent (4.9/100) and 10 percent (0.1/1) for a total of 14.9 percent. In this situation, you don't have a problem and are well below the MPE limit.

In the second situation, we'll simply reverse the contributions. Assume the contribution from the AM antenna is only 0.1 mW/cm^2 while the contribution from the FM antenna is 4.9 mW/cm^2. Do the same type of calculations and you'll get

Survey Documents Equipment Market Changes

Recession, Transitions Will Cause Decline in Equipment Purchases Globally for 2009

by Tom Vernon

The transition of broadcast media from terrestrial to Web-based is well underway, although progress is slowed somewhat by the economic climate.

These are two of the findings of a survey, taken by DIS Consulting Corp., titled "Radio Equipment World 2008." It predicts the future of the global broadcast equipment market for the next five years and describes trends that have been forming and will continue into the future.

The survey was taken for four geographic regions: the United States; Europe/Middle East/Africa; Asia; and the Americas (Central America, South America and Canada). The survey results were gathered from chief engineers and other titles at radio stations.

In each of the 11 product categories, respondents reported what they owned, bought last year and planned to purchase this year, by type, by brand and in terms of average prices or values.

The product categories used in the survey included portable recording systems, studio recording systems, audio recording media, large studio mixers and consoles, on-air mixers and consoles, microphones, speakers/monitors, amplifiers, digital audio workstations, and radio transmitters.

The findings of the survey, conducted in the fall of 2008, indicate both a technology transition in the radio equipment market and the impact of the global recession now underway.

Among the 11 categories studied, there was a 16 percent decline between dollars spent on equipment in 2008 and those projected to be spent in 2009. Portable recording equipment was the only category expected to see a modest increase in 2009 purchases.

DIS Consulting was founded in 1982. The NAB is a strategic partner with DIS for market research, though the association does not fund the surveys. Funding is provided by 20 manufacturers who made front-end com-

Universe = Global Number of Stations

	2008	2009	2010	2011	2012
■ Universe = Global Number of Stations	44000	44200	44250	44350	44500

The number of radio stations in the world is projected to increase from 44,000 in 2008 to 44,500 by 2012.

Global Radio Spending in Billions USD

DIS research projects global sales for broadcast gear to bottom out at $0.98 billion in 2009, and rise to $1.7 billion in 2012 as the economy recovers.

mitments to support the survey and shared in the results. The complete survey is for sale at the DIS web site (www.disresearch.com).

Softening

Douglas I. Sheer, CEO and chief analyst of DIS Consulting, said, "Considering the difficult economy and the major shifts away from terrestrial broadcasting to Web-based and satellite-based alternatives, the slide in dollars seems moderate. This is especially true when we look at parallel results on the television side this year."

He adds that the softening of markets in 2008 is in spite of the fact that it was an election year and an Olympic year, usually both boosts to equipment purchases.

There is light at the end of the economic tunnel for broadcast suppliers, according to Sheer.

"Our five-year forecast is for market recovery, which can only happen after ad revenues come back. We predict that this recovery will begin early in 2010, and recent action on Wall Street seems to support this."

Sheer is quick to emphasize that the report does not signify the beginning of the end for terrestrial radio.

"Over-the-air broadcasters should focus on what they do best, which is localism. Traditional listenership and formats aren't going away anytime soon. The Internet on the other hand, is best at serving a global audience. Those stations which have already embraced Web media through streaming and podcasting are in a strong position for the future."

Another boost for terrestrial radio, according to Sheer, is the precarious position of satellite broadcasters, who have overspent for talent and capital expenses, and

are now pulling back. Proposals for channel expansion in the AM and FM bands may also spur growth of items such as transmitters and antennas.

The decline in terrestrial radio noted by the survey does raise questions on the future of HD Radio, although Sheer doesn't see an impact in the short term.

"In the long term, no technological solution is forever. HD is widely supported right now, but as the second Web rises, many of our current technologies will come under fire."

The DIS report suggests there may be some changes coming in the manufacturing landscape as well.

"The privatization of industry, especially in China, is having a huge impact. Instead of acting as job shops for Sony or Panasonic, some companies are starting to make their own products and compete with the big names. Their prices tend to be lower. This trend is well underway in Asia, and is just starting to be felt in the United States."

While China is the largest overseas player, American buyers can also expect to see more manufacturer from India and Vietnam showing their wares at NAB Shows in the future. This may mean that American equipment manufacturers, which have had some product categories essentially to themselves, will be facing stiffer competition.

The global market for broadcast equipment varies widely by region, according to Sheer. He adds that two opportunistic markets are the Americas and Asia. The Americas have been a backwater for many years. This began to change when mobile and HD standards were decided upon. Brazil is one bright spot, as that country is hardly experiencing the recession.

Asia has been similar to the Americas, the most recent trend has been privatization

Average Annual Budget USD
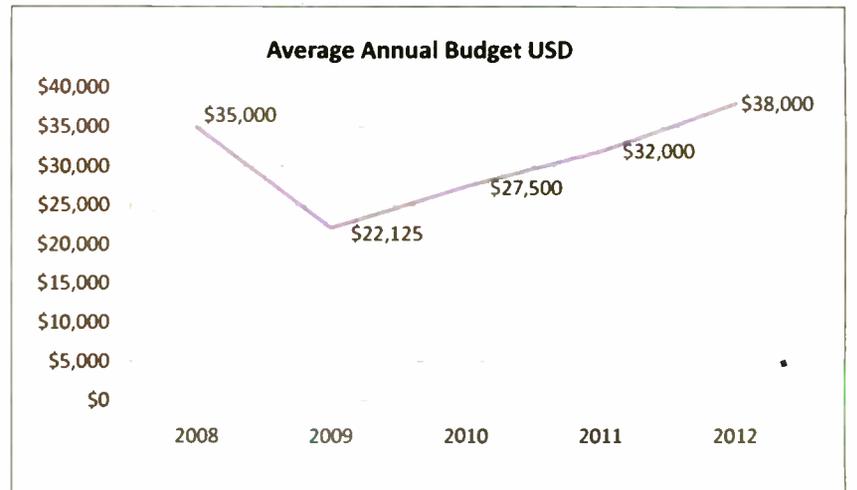
The global average budget for equipment purchases is expected to drop to $22,125 in 2009, and gradually increase to $38,000 by 2012.

of the media, particularly in China. Many projects are on hold until the economy improves.

While Europe/Middle East/Africa is one category in the survey, Sheer notes that Africa is the sleeping giant in the group.

"It has an enormous potential for growth in radio transmission. The trend on the continent is away from receiving aid from foreign banks and encouraging the entrepreneurial spirit to flourish." He adds that Africa will be a great post-recession growth market, starting in about two years.

Once economic leader the leader in Eastern Europe, Russia has been hit hard by the recession and falling oil prices. Sheer said that in the short term, some of the former Soviet block countries such as Poland, Romania and the Czech Republic will show steady growth. He adds that the long-term outlook is for Russia is continued growth as the private sector expands. ◗

RF
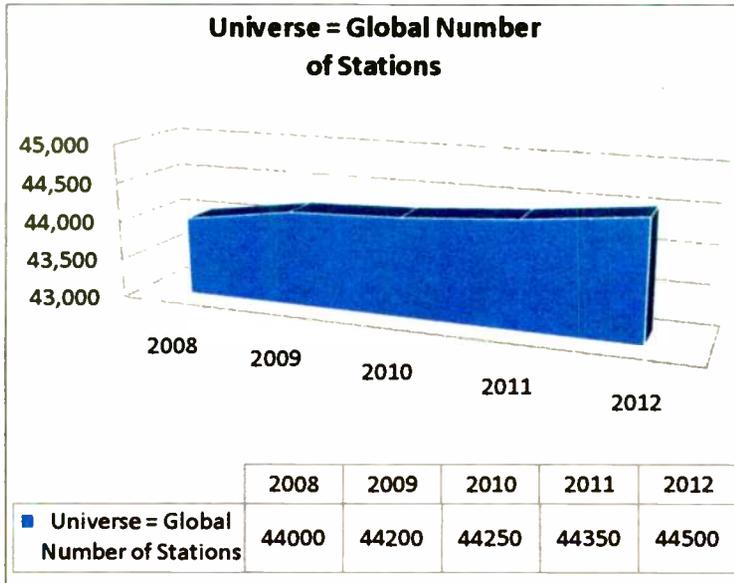
490.1 percent of the MPE limit.

These calculations are based on the MPE limit for Occupational/Controlled exposure. The MPE limits for General Population/Uncontrolled exposure yield even more extreme results. This is because the public MPE limit for the FM band is 0.2 mW/cm^2 while the limit for most of the AM band — the limit begins to decrease at 1,340 kHz — is also 100 mW/cm^2.

Shaped-frequency response sensors are designed with resistive-capacitive (RC) circuits using design techniques similar to filter design. The sensitivity of the sensors attempt to follow a particular standard or regulation, such as the FCC Regulations.
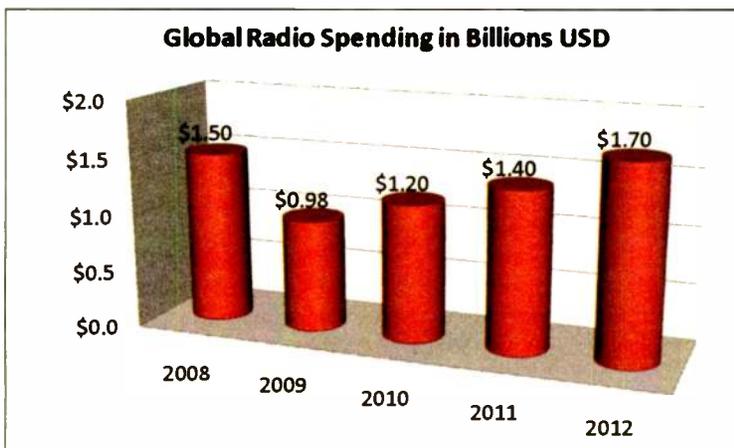
For example, if you use the Nardalert XT RF personal monitor and it is exposed to an RF field from an FM antenna that is 1.0 mW/cm^2, it will interpret that as 100 percent of the standard, and audible and visual alarms are activated accordingly. If the monitor is exposed to the same intensity field from an AM station, it will interpret the signal as 1 percent of standard. Note that the monitors all follow the higher MPE limits for Occupational/Controlled exposure.

If you exposed the monitor to the energy from multiple sources operating at different frequencies with different exposure limits, the monitor still yields results in terms of total percentage of the MPE limit. Shaped-frequency response probes are used to make measurements at complex sites without the need to turn anything off. The approach is to simply make sure that everything is operating at full power.

Write to the author at rfsafety@optonline.net. Comment on this or any article to radioworld@nbmedia.com. ◗

Secrets of Voiceover Success

Joan Baker Offers Thoughts on How to Make It in 'Bathrobe Broadcasting'

by Christopher Springmann

It all seems so logical and straightforward, doesn't it? Take your existing skill set as on-air radio talent or an engineer, say good-bye to the crazy hours and crazier management of radio-land and find a career doing voice work from home.

So before this week's new owner changes the format again, read on about your new career path ... and consider signing up for Joan Baker's V/O course.

A broadcaster's dream: "If I'm on the air live and my mouth doesn't convey what my mind intends, oh, please, let the results be funny." Voice talent Joan Baker had that prayer answered when she dropped a world-class Spoonerism while announcing Will Smith's nationally televised tribute show.

Baker enthusiastically introduced actor and presenter Bill Pullman as "Bull Pillman!" The audience howled at the gaffe, with honoree Smith leading the laughter. The newly anointed "Bull" ran with the gag and brought down the house.

A career breaker? Hardly. While Baker's flub is now immortalized all over YouTube, the moment became an asset for the author of the book "Secrets of Voiceover Success!" She retrains established radio talent plus fresh-faced wannabes on the intricacies of voice acting.

"There are a lot of mistakes that happen in voiceover," said Baker. "But I was lucky that people thought this one was laughable."

The New York-based voice actor, coach and author is funny; but there's a serious side, too. Her work includes narration for the William Jefferson Clinton Presidential Library, a national ad campaign for the Muhammad Ali Center and tags, spots, narration and promos for clients like ABC News, NBC, HBO, Oprah.com and Grand Theft Auto III/IV.

Baker spoke with Radio World from her V/O booth in Manhattan via an ISDN hookup to San Francisco. She joked about the image of "bathrobe broadcasting" from home, the casual, easy-money image of professional V/O work.

RW: How would you break down your voice training technique?
Baker: I break it down into three categories: speech and diction; craft and acting technique; and just "letting go."

RW: Explain.
Baker: For "Speech and Diction" one of the first things I do is to quickly assess the student's speech for any regionalisms or patterns that are outside the rules of "Standard American Speech." The rules are quite extensive. I recommend Edith Skinner's "Speak with Distinction" as the bible of speech and diction. The nation's top acting schools and universities use this book as the ultimate teaching aid.

Joan Baker

"Craft and Technique" is the fun part and it constitutes probably 80 percent of the training I do with students. Essentially, I teach students how to prepare themselves such that they can embody the intention of the script, allowing the preparation to give life to performance. This is the basic principal behind acting.

A big difference, however, is that actors generally have other actors to play off of. It's easier in some ways when you have other actors helping to create a certain reality in which you are a player. In the voiceover booth, however, you must create the whole of the reality: your character and the characters to whom you are speaking.

And then there's "Letting Go." This is a personal one-on-one process of teaching people to let go of mental and emotional barriers that suppress vocal expression.

Part one of Letting Go is to increase one's freedom around personal self-expression, which is always mirrored in the performance. Another aspect of Letting Go is developing a unique awareness of your body and the specific elements of the vocal apparatus just as a singer would. You get the best results when you learn to use your whole body as a supporting foundation for your thoughts, feelings and vocalization.
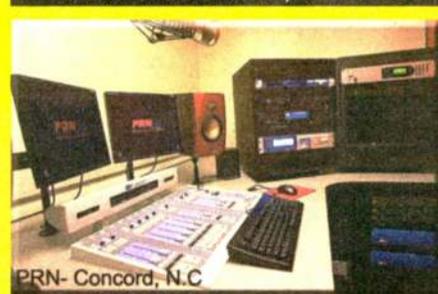
RW: Is there a "Joan Baker" sound?
Baker: Definitely — in the same way that there's a Joan Baker fingerprint.

In the typical sense, by "sound" one refers to a known vocal quality that is recognizable, e.g., James Earl Jones' "This is CNN" or his breathy Darth Vader voice. This sort of recognition is achieved as much by repetition in the marketplace as by a distinctive vocal quality.

However, the really instructive aspect of this question has to do with something each and every successful voiceover artist comes to understand, the unique nature of his or her particular vocal instrument.

According to Joan

Tips for breaking into voice-overs.

1) Study the craft with a reputable teacher who is also a working union voiceover actor and signed with a top talent agent.
2) Explore speech and diction training to eliminate any regionalisms that may be in the way of standard American speech.
3) Work with a seasoned producer and director to produce a demo reel.
4) Send your demo reel by CD, DVD and MP3 to every voiceover agent in the book. The book is the Ross Reports.
5) Network your a** off and continually find ways to introduce and reintroduce yourself to the top agents and anyone (producers, directors, copywriters) who might have reason to consider casting you now or in the future.
6) Start a Web site or MySpace page where you can post your demo and professionally considered info about yourself. Then reach out to "friend" as many producers, directors and copywriters as you can find.
7) Be very, very patient.
8) Never stop training and practicing.

MEET YOUR NEW STL
WIRELESS CONNECTIVITY EVEN IN CHALLENGING ENVIRONMENTS
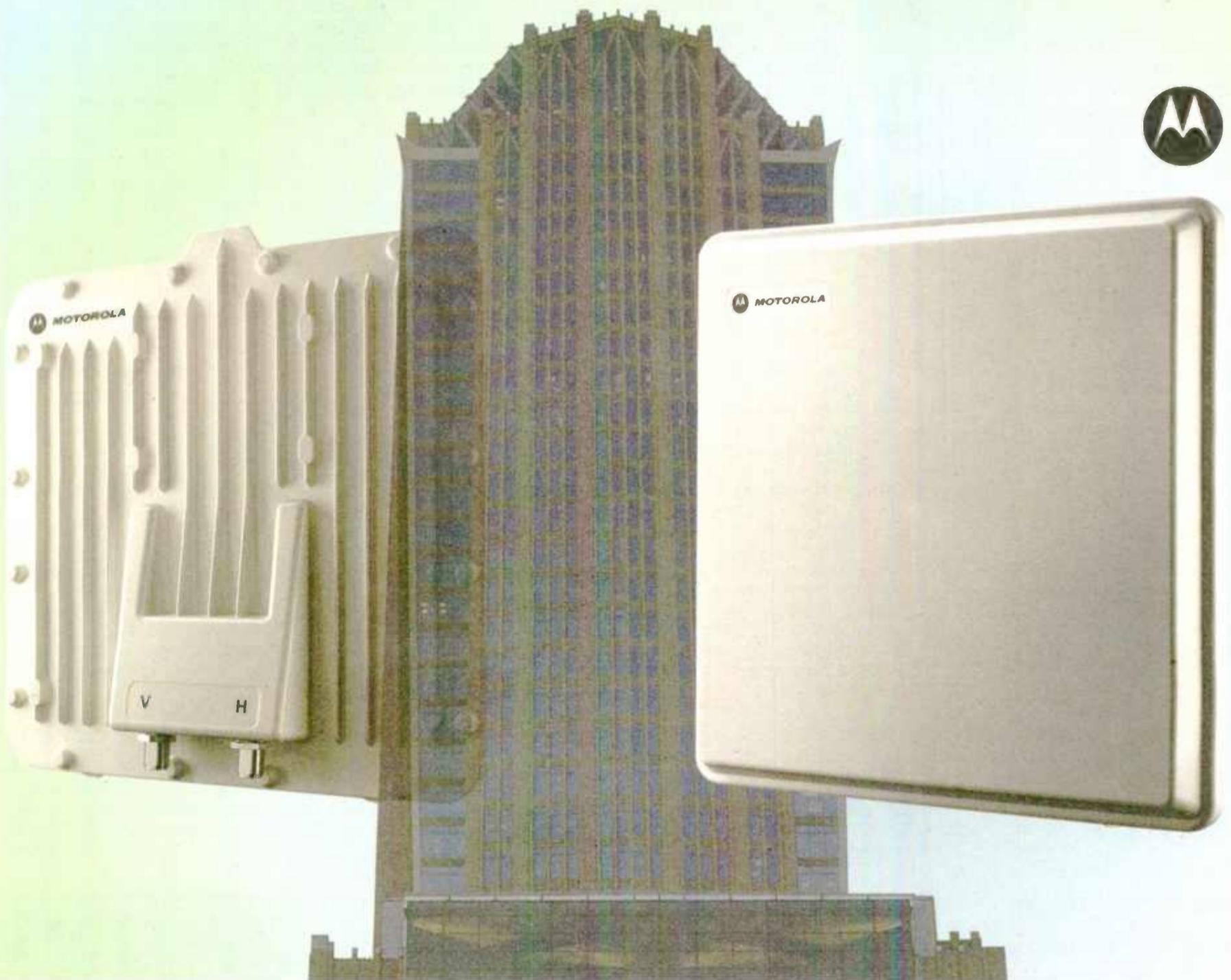
The Motorola wi4 Fixed Point-to-Point Wireless Ethernet Bridges – PTP 300 Series – for Studio to Transmitter Link applications give wireless ISPs and emerging companies reliable, secure and cost-effective connectivity.

Operating in the 5.4 and 5.8 GHz bands at Ethernet data rates up to 25 Mbps and distances up to 155 miles (250 km), the systems are designed for virtually any environment – non-line-of-sight, long-range line-of-sight and high interference.

http://www.motorola.com/us

Until now, many emerging companies have had to choose between performance and price when expanding their communication capabilities. The challenges of meeting bandwidth and environmental requirements while staying within budgetary guidelines frequently meant having to buy less, pay more or simply postpone. That's no longer true. With Motorola's wi4 Fixed Point-to-Point (PTP) 300 Series solutions, you can have high-throughput connectivity even in challenging environments – and still stay within your budget. As a result, growing wireless ISPs as well as small and medium-sized enterprises can realize the productivity and economic benefits of high-performance connectivity.

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YOU KNOW WE KNOW RADIO!

USB Mics Show Promise, Inconsistencies

Ira Wilner Tries Three Models From Samson and MXL

by Ira Wilner

The Universal Serial Bus (USB) has become the de facto standard for PC connectivity with a USB 3.0 standard about to be released that will permit extremely high-speed data capable of supporting the fastest external disk drives and HD video streaming. So it is no surprise that USB microphones have recently appeared on the scene.

The USB microphone is the culmination of the dream to provide affordable digital microphones. Neumann's original digital studio microphone retailed for over $13,000, not exactly within the budget of the average radio station or Webcaster.

When you move the analog-to-digital converter into the microphone itself you can elegantly solve several problems.

First and foremost, the critical weak signal from the microphone does not have to be transported through many feet of cable to the preamplifier and recording gear. Instead, the preamplifier and analog to digital converter is less than an inch away from the microphone capsule.

MXL USB.009

This vastly reduces susceptibility to externally introduced electrical noise and distortion. The preamplifier can also be designed to provide the perfect match between capsule and converter.

What makes a USB condenser microphone a practical popular alternative to conventional microphones?

For one, it replaces both the preamplifier and the sound card. Many built-in computer sound cards suffer from inferior audio quality and excessive noise due to the electrical environment inside the typical computer. As a result, serious direct-to-hard drive recordists often will use outboard sound cards and dedicated microphone preamplifiers to obtain better quality. A USB microphone contains the essence of a sound card. Nothing more has to be toted around with your notebook computer.

Shrink that computer into a palm-sized unit, running Windows XP, and you'll have a near pocketsize remote broadcast system that'll get your audio home wherever there is a Wi-Fi connection.

Unfortunately and conversely, the USB umbilical cord makes it impractical to use the mic in a recording studio/control room setting. You can't get

sufficient USB cable length. And you cannot use existing in-wall microphone lines and patch bays.

While USB microphones are dirt cheap and pretty good by comparison, the old maxim "you get what you pay for" still holds true. I took a look at three similar, yet quite different, products.

Podcasting: MXL Studio 1

The first is a new entry sold as a "Desktop Recording Kit."

The Studio 1 from the Marshall Electronics' MXL multimedia division is well packaged in a padded plastic carrying case that also holds a screw-in mic stand adapter tiny tabletop tripod, USB cable and soft cleaning cloth.

It looks like a typical large capsule condenser mic until you look at its bottom. Instead of the standard three-pin XLR-style male pin connector, this mic sports a mini USB jack.

Most large condenser mics copy the basic body design of the expensive Germanic variety. Unscrew a bottom ring that threads around the body of the mic connector and you can remove the body sleeve revealing a frame containing the electronics.

The Studio 1 uses a tiny double-sided printed circuit card, with one side being mostly a solid copper back plane for noise immunity. One FET impedance converter transistor and a 32-pin surface-mounted IC makes up all of the active circuitry. A pair of 100 ÌF electrolytic capacitors are onboard to couple audio out to the headphone jack.

Yes, this microphone has an obviously labeled 1/8-inch mini earphone jack just below the capsule! What sets this entry apart from most others is it is essentially a full-duplex sound card. The USB data path allows the microphone to play back audio from your audio editor's timeline directly into your headphones! No computer sound card required.

Just above the headphone jack but hidden behind the capsule grille is a red LED indicator light that illuminates when the mic is receiving power through its USB port. So, you can tell at a glance if it's properly plugged into a powered port and ready to work.

You might ask, why bother to put a headphone jack into a USB microphone when most computers have built in sound cards? The reason is the limitation of the Windows Sound Manager to work with more than one sound card at a time. If you choose the USB sound device, so you can record from it, you cannot bring its output into your Windows Sound Mixer applet to permit playback monitor mode through your computer's built in sound card. The work-around is to put a full bidirectional sound card interface inside the microphone itself. How well does it work? Unfortunately, I found the preset mic output level too low to be useful in monitoring yourself while speaking into the microphone.

Is the cute little desktop tripod a replacement for a mic boom or floor stand? If you need to travel lightly

yes, but if you need to protect your posture, no. You will have to curl yourself over to get close enough to the microphone to address it properly unless you place the tripod on a stack of books. The tripod and the stock stand adapter have

How I Tested The Mics

My test bed was a custom ASUS laptop computer. The sound card was an external FireWire MOTU Traveler. The USB microphones were individually connected to the laptop. Cool Edit Pro and Adobe Audition 2.0 were used to capture the USB audio. Using my voice, which is highly asymmetrical, negative going peaks, I was able to judge absolute phase for each mic. I compared the mics to each other and to an assortment of other mics recorded via the MOTU to sound files at 16-bit/44.1 kHz.

Baker

RW: Do you "eat the mic"?
Baker: To clarify, "to eat the mic" refers to a vocal quality that's simply breathtaking — extraordinary — a voice that people enjoy listening to just for its own sake.

This quality can be quite natural for some actors but it's useless without the extensive training required to handle the variety of styles and characters one must negotiate over the course of a successful voiceover career.

On the other hand, a voice with such extraordinary attributes is not what most voiceover work calls for. Voiceover work calls mostly for a sound that is natural, approachable and "real." Products are best sold with a certain undercurrent of the "word of mouth" variety, as the audience feels more comfortable hearing from a *person* who sounds familiar as opposed to a *voice* that sounds incredible.

RW: Do you need an audience or do you work alone?
Baker: I love an audience, whether it's a one-person audience or a group audience. There's almost always an audience in the form of your director/producer and a few clients that may be in the room during a session. You're certainly aware of them, which adds a positive urgency to your work. I create a performance for the audi-

ence who will be listening on radio or TV. The director and producers are simply there to approve the V/O artist's interpretation of the copywriter's material for the benefit of the client.

RW: Tell us about you radio career.
Baker: I was a performer with a group on WBAI Radio, Pacifica 99.5 FM in New York City, called the Collective Unity Creative, for six years. We did radio drama and wrote spoofs about current events of the day, plus doing interviews with top artists, performers and musicians.

RW: Do you actually wear a bathrobe in your recently completed home studio?

Baker: This is a funny idea that suggests the notion of a super-easy career, but I don't buy into it.

First, I'm in my Manhattan office, so no, I don't work in a bathrobe and slippers.

People who work at home still have to go out and buy groceries, pick up the kids from school, so I suppose they may as well get dressed for the day.

More importantly, success in the voiceover business requires networking and face time with key people; it's an ongoing process.

So, while a home studio is an important tool to have, you will still have to be out there interacting with the industry people on the networking level. Perhaps this is where the bathrobe would work.

Just kidding. 🌐

Samson CO1U

Product Capsule:
MXL USB.009

Thumbs Up
✓ Nice carrying case with room for optional windscreen
✓ Built-in playback monitoring headphone jack
✓ Ability to monitor playback of sound files and set balance
✓ Ability to trim analog audio between capsule and A/D converter
✓ Very good sound quality for voice and music capture

Thumbs Down
✓ Too easy to pop, no windscreen
✓ Controls are small and difficult to use
✓ Documentation lacks specifications
✓ Software compatibility issues

For information, contact MXL Microphones at (800) 800-6608 or visit www.mxlmics.com.

Product Capsule:
Samson CO1U

Thumbs Up
✓ Very good sound quality, crisp, smooth
✓ Can be used for musical recording
✓ Plug-and-play, no drivers required
✓ Option to control internal gain and phase
✓ Tight smooth hypercardioid pattern

Thumbs Down
✓ Cannot monitor live audio
✓ Tabletop tripod fragile plastic threads
✓ Low end is slightly rolled off; won't make you sound macho

For information, contact Samson Technologies at (631) 784-2200 or visit www.samsontech.com

no shock absorbing quality. There is no foam windscreen.

The USB mic is mostly plug-and-play, with no drivers to install as they are already built into Windows XP and Vista (should be the same for Macs).

So, how did the Studio 1 sound? In a word, muddy. It is tubby with way too much proximity effect bass boost and insufficient highs for broadcast use. The lesson is that the cheaper microphones that are obviously aimed at the novice market are not likely to be broadcast quality. Move on to other choices.

Bargain: Samson CO1U
Sometimes less is more.

The Samson CO1U comes packed in a smallish plain cardboard box. Its accessories include a cloth pouch instead of a hard case, a stand adapter, tabletop tripod and USB cable. In addition there is a European thread adapter screwed into the stand adapter, which was a pain to extract but a nice touch for those with non-North American mic stands.

The accompanying user's guide is well written with lots of useful information.

The mic is a little larger than the MXL Studio 1 and resembles costlier Shure KSM studio mic line. It too is not supplied with a windscreen. The tabletop tripod is similar but has plas-

tic threads in its adapter that can be more easily damaged by crossthreading. Again, this accessory does not position the mic well.

The mic has a unidirectional digital interface, no headphone jack. As a result, I had no difficulty getting Adobe Audition 2.0 to recognize it as a recording device. What you do lose is the ability to hear yourself live while recording. Hey, do like the old timers and cup your hand over an ear.

The CO1U has some professional features accessible through an optional device driver not supplied with it but downloadable from the Samson Web site. The SoftPre driver permits you to remotely control three internal settings of the microphone. You can change the preamplifier gain, thus preventing distortion

or reducing internal noise. You can switch in a high-pass filter to reduce rumble and breath noise. And you can switch absolute audio phase 180 degrees!

These are highly professional touches. Are they needed? Out of the box, no. The CO1U's default internal gain structure is right where you'd like it to be. In testing this mic it did not distort or clip. And the mic fader in the Windows Sound Mixer applet could be raised more than half way to get a good record level. Absolute phase is correct. And the mic does not seem to exhibit much of a proximity effect. So no need for the bass rolloff filter.

So, how does it sound? Better than a $100 dollar mic has any right to sound. I really like its sound. It is quite flat, has a nice crisp high end and isn't muddy or

mushy. Will you like it as a voice mic? It has a somewhat lower propensity to pop, but it may be too thin on the bottom for some tastes. It won't turn a shrimp into a gorilla. And it won't create a lot of midrange air. But you'll experience good voice articulation and smoothness not normally heard in this price range.

If you are a budding musician and want to lay down a few instrumental accompaniment tracks, this USB mic is musical enough to capture the nuances of your guitar strings without sounding boxy.

Reprise: MXL USB.009
The third and more expensive USB microphone of the lot is the MXL USB.009.

Atrio m5: Big Sound, Little Package

Future Sonics Earphones Pack a Lot Into a Convenient, Portable Format

by Paul Kaminski

A good set of earphones is essential for the creation of quality audio, whether that audio is produced in the studio or in the field. The field has its own set of challenges: Not only must the producer, talent and engineer hear the audio being produced through the headphones, the headphones must isolate the wanted signal from the unwanted ambient sound. In most instances, that would involve taking studio headphones (and adapters for recorders, laptop, etc.) into the field. Sometimes one cannot use a set of headphones in the field.

Where I usually work (racing pits, garage areas, victory lanes, noisy press rooms, other field situations — you get the picture), one needs to hear ambient sound along with that made by the recorder or broadcast link, and headphones often are not appropriate in that situation. They take up too much room in a news kit, too.

How does one get the headphone quality in a small package? Simple and small ear bud-style earphones fit in the ear, but typically one does not hear the full range of audio.

Isolation

The Future Sonics Atrio m5 is the latest iteration of its line of canalphone-style earphones. Canalphones fit tightly into the ear canal. The m5 was developed for on-stage performers who needed the isolation one gets from a set of over-the-ear or circumaural headphones, but without the geeky look that headphones might provide.

The m5 (onyx black) is part of a line of variously colored receivers (m3 earth beige, m8 cobalt blue, m9 ruby red), with the same audio specifications. They were designed to be light so that the canalphones would fit comfortably in the ear canal while maintaining the proper coupling to the canal that is critical for best performance.

The m5 comes with assorted sizes of silicone ear tips and foam tips, along with a cleaning tool to dislodge cerumen — ear wax — that may build up in the ear tips.

I used the medium silicone ear tips for this evaluation. They go much further into the ear canal than bud-style headphones.

The closest comparison I can make is to say that they feel somewhat like the experience one gets when one would use a silicone ear tip for a monitor ear piece in the ear. The foam earpieces felt most familiar to me, because I use those style of earplugs near loud engines, to block out loud engine noises.

> **A $200 set of canal-style headphones might cause a stir amongst the green eye shade people in accounting departments.**

The Atrio line is designed so that the connecting cord (1.3 meters long) hangs down and can be routed over the ear and down the back or may be worn hanging down like traditional commercial earphones. The m5 has a 3.5 mm (1/8-inch) stereo connector and 32 ohm impedance. I used a generic 3.5 mm to 6.3 mm (1/4-inch) connector and found no problems.

The Atrio m5 does not use an armature design for the transducers. An armature design describes that which is normally used in a hearing aid. These designs are efficient when reproducing voice frequencies, but not so efficient when attempting to reproduce bass frequencies. Future Sonics once used armature designs but discontinued those designs once they perfected their development of miniature dynamic loudspeakers, which are the transducers used in the m5. The published specifica-

tions suggest a frequency response of 18 Hz–20 kHz with a sensitivity of 112 dB at 30 Hz at one milliwatt of power.

Bass response with the m5s seemed to be a function of how well the monitors fit in the ear canal, hence the different inserts. The bass frequencies that one might not hear with a pair of Walkman-style or ear bud headphones are heard with the m5.

Bass

Case in point: I played a copy of Crosby, Stills and Nash's "Southern

Cross" through my Behringer UB802 mixer. One hears the distinctive bass with a set of headphones. With ear buds, not so much. With the m5s, the bass comes through. I noticed that it took a few tries working with the Atrio m5s before I was able fully to understand and process the sound I was hearing.

One must be careful with the sound levels. Future Sonics suggests users of these canalphones start with a low volume level and flat equalization and then increase the volume while leaving the tone control alone. The sound level one would use working with conventional ear buds (and even some over-the-ear headphones) may cause discomfort so, as with any earphone, gradually increase your volume to a comfortable listening level with the Atrio m5.

Future Sonics is recognized by H. E. A. R. (Hearing Education and Awareness for Rockers; *www.hearnet.com*) and the company does work to promote safe monitoring practices.

The Atrio m5s block enough of the ambient sound (published specifications suggest a 26 dB reduction), that, for instance, the earphones can be used to evaluate audio on a laptop if you are flying. They work with a BlackBerry, too. I was able to evaluate audio while a motel room TV was playing six feet from

where I was sitting. During a news conference, I had to make a quick sound check on audio being recorded on a Marantz PMD620. I simply plugged in the Atrio m5s and made the evaluation. Ear bud earphones would have let too much of the ambient sound through in that instance and I could have missed a problem with audio levels. That saved time, and saved a recording. They work even better when the ambient noise is much lower.

The manufacturer's suggested retail price for the Atrio line is $199.95. The m5s come with a belt-sized carrying case for the m5s, silicone and foam ear tips, cleaning tool and enough room for a 3.5 mm to 6.3 mm adapter.

A $200 set of canal-style headphones might cause a stir amongst the green eye shade people in accounting departments. The question that should be asked: How much are your ears worth? If a person can use the m5 to process audio at a safe level, and not have to file future insurance or other claims for on-the-job hearing loss, maybe that expense looks better over time.

Paul Kaminski is the news director for the Motor Sports Radio Network, a contributor for CBS News, Radio, a Radio World contributor and Radio Road Warrior Columnist. His e-mail is motorsportsradio@msrpk.com.

APT Debuts New IP Audio Codec

The Equinox is the latest addition to APT's well-known WorldCast line of codecs. This particular model is, not surprisingly these days, an IP audio codec.

Aimed at the "affordable" broadcast IP STL market, the bidirectional Equinox is also compatible with ISDN service. It is fully compatible with other manufacturer codecs that use MPEG Layer III bonding. The Equinox will automatically switch to ISDN in the event of IP failure.

Kevin Campbell, senior VP of Global Hardware Sales for APT said: "We are tremendously excited about introducing the WorldCast Equinox. It has been designed for professional IP STL applications, offering the feature set most commonly requested from broadcasters at the most economical price."

For information, contact APT North America at (617) 923-2260 or visit www.aptcodecs.com.

USB

Like some of MXL's mics aimed at serious engineers, this one comes packed in an aluminum flight case with lockable latches. The case is quite a bit deeper than necessary and has room for far more than the included accessories. The extra space can be put to good use if you purchase the optional foam windscreen.

The mic adapter clip is the same as provided with the Studio 1, but the folding mini tripod is replaced with a weighted base with a 3 inch high threaded pipe stub. Unfortunately the base is too small and light to afford good stability. The mic sits on it quite precariously.

The microphone's build is solid and reasonably well machined. It has a rather long body, almost 8-1/2 inches from stem to stern. As a result it sits a bit higher on your table requiring less arching of your back to address it properly.

This mic also has a 1/8 inch headphone jack with a built-in duplex sound card interface like its little brother. But here's where the similarities end.

The USB.009 has three volume controls in a vertical line. The top control is a mic level trim that permits you to adjust the preamp output driving the A/D converter. This is an important feature as it allows you to maximize bit depth without clipping the converter.

The middle control adjusts the headphone monitor mix balance between the zero delay analog feed directly from the mic preamp and return audio from your computer as it plays out your sound files. Even if you use a low-latency ASIO sound card driver, one of which is recommended in the MXL user's guide for download, the live return audio will still have a slight delay since it has to pass through digital buffers and a D/A converter. If you set up your multitrack recording software to playback only the tracks you want to sing with, minus your voice, you'll want a 50/50 mix of the computer tracks and the direct sound from the microphone.

This capability alone makes the USB.009 far more useful than its Studio 1 cousin.

The lowest knob is headphone volume. This headphone amplifier has a much higher and useful output. While you'll appreciate having all three controls on the mic you will not like their feel. The controls are stiff. The knobs are so short they are hard to grasp. If you have fat fingers you might have to ask a child to adjust them for you.

Finally, this microphone sets itself apart by its digital converters. It can record at a 24-bit depth at a 96 kHz sample rate. It can record serious digital audio sound files with studio quality bit depth and resolution. Unfortunately I was unable to test at the higher performance settings (see below).

The USB.009 is plug-and-play at default CD audio quality settings, 16-bit/44.1 kHz. My computer immediately recognized it and rerouted playback audio through the microphone's headphone jack. Very cool! And, of course, at the same time I could monitor the microphone audio directly.

Unfortunately you can only select the USB microphone sound card interface sample rates under Windows Vista operating system, not under XP. So, I was unable to test the mic with higher definition sample rates and bit depths.

Adobe Audition 2.0 was unable to connect to the USB microphone using the Windows sound system, but the older Cool Edit Pro had no problem at all. I was finally able to get Adobe Audition 2.0 to work after I installed the recommended ASIO4ALL free ASIO sound driver. But it too would not permit higher resolution settings except for 24-bit mode.

These are driver and software compatibility issues that should have long been worked out. MXL would do better to provide their own device drivers designed to get the most out of their hardware rather than relying upon third parties to write shareware drivers. MOTU's own drivers for my Traveler work fine enabling me to record 192 kHz sample rate files on the same computer under Windows XP.

How does it sound? I evaluated the microphone's sound quality in two ways, first recorded at 16 bits at 44.1 kHz sample rate played back through its headphone jack. Then I compared it to the playback through my MOTU sound card.

The built-in headphone amplifier does not have sufficient headroom to comfortably drive medium low-impedance loads such as the beyerdynamic DT-770. The tracks sounded cleaner and more effortless through the MOTU. So, for critical monitoring I would not use USB playback. It is adequate for self-monitoring while laying down a voice track or for editing. Also, MXL got the absolute phase right on this mic.

The USB.009 has an extended seismic low end, so much so that it really needs to be mounted in an isolation mount such as the MXL-57.

Don't even think about hand-holding this mic. You can hear every subsonic muscle tremor or even the lightest tap on a desk or table. The upper midrange has a slight peak which adds pleasant brightness useful to enhance vocal articulation. The highs are crisp though not quite as silky as my better studio mics.

Overall the USB.009 could be used successfully for vocal or instrumental recording. It does sound decidedly darker than the Samson CO1U. Those who find the Samson a bit thin will like the low end on the USB.009. And unlike the Studio 1, this mic does not sound muddy at all.

For under $300 you get a nice-sounding microphone with a complete built-in sound card facility with playback monitoring and simultaneous live mic monitoring. All done with the convenience of a single USB cable. ●

RADIO SALES

Take a Poll: It's Your Opportunity to Shine

by Rod Schwartz

Every year local newspapers and magazines across America conduct their annual "best of" surveys, polling their readers on their attitudes and experiences in the marketplace. The results of these surveys generally serve to promote good business throughout the community.

They also provide beaucoup opportunities for (surprise!) selling advertising.

Typical survey questions include:

- Who's your favorite local TV news personality (sportscaster, weatherperson)?
- Who in town makes the best pizza (hamburger, salad, sandwich, dessert)?
- What's the best Chinese (Korean, Greek, Mexican, Italian) restaurant?
- Your favorite bakery (ice cream shop, watering hole, espresso stand, place to meet the opposite sex)?
- Favorite local doctor (bank teller, college professor, city official)?
- What local establishment has the friendliest staff? … the cleanest facility? … the funkiest decor? … the best smell? … the most attractive waitress? … the best bartender?

Obviously this is just a sampling of the types of companies and individuals that can be included in a "Best of Community" poll.

But what a marvelous opportunity! It's loaded with benefits and no negatives that I can think of. (OK, so the losers don't get to say they're #1 this year. So what? They might be on top next year, if they work at it.)

At the end of the survey, results are tallied and the winners receive framed certificates to display proudly in their businesses for all the world to see. It creates a lot of buzz, both for the business community and for the

Survey
☑ **Excellent**
☐ **Very G**
☐ **Good**
☐ **air**

media outlet conducting the survey, whose logo appears on every award certificate.

So why is it that — in most of the markets I'm familiar with, anyway — this promotion seems to be the exclusive province of the print media? ("Ol' Smudgy," as my friend Jay Mitchell likes to call 'em.)

I'm sure there must be exceptions where the local radio station is running this show, thereby positioning itself as a community leader. But I don't know of any.

It's a real opportunity for radio to shine, my friend. And so easy to put together!

- Let salespeople and air staff help create the survey form, identifying the obvious categories along with a few esoteric ones for fun.
- Write some promos inviting listeners to visit your Web site and fill out the survey form.
- Take printed copies to remotes.
- Pass them out at supermarkets, shopping malls, anywhere large numbers of people congregate. E-mail them to listeners.

- Offer some nice prizes in a random drawing from among all completed surveys. (Great way to build a loyal listener database for future promotions.)

Make it fun, make it worthwhile for people to fill out the questionnaire and you'll get lots of participation.

Then, make a big deal of announcing and saluting the winners. Use some trade and take 'em out to dinner to present the awards. Create "theater" by broadcasting the presentations. Or take videos and upload them to YouTube and your own site. Share them on Facebook.

Make it as big a deal as you can imagine, and you'll ride on the goodwill for a long time.

Why is it that this promotion seems to be the exclusive province of the print media?

Best of all, you'll get to do it again next year. And the next. Once you've staked this promotion as yours, who's going to steal it from you? It's yours for as long as you want to keep it going.

A favor. If your station is doing this promotion, now or in the future, would you kindly drop me a line and let me know about it?

Thanks. And good selling!

Rod Schwartz, owner/creative director of Grace Broadcast Sales and a 36-year radio sales veteran, shares stories, commercials and advertising lessons in his blog. He invites radio advertising professionals to join the conversation at www.rodspots.blogspot.com. Contact him at rod@gracebroadcast.com.

For WILQ, It's a Wrap

Backyard Broadcasting in Williamsport, Pa., is using fresh "wraps" to update the look of its four promotional vehicles. The first was for flagship WILQ(FM).

Chief Engineer Brian Hill told RW, "We like to use the 'Be local, be loved' theory of radio. When we were trying to decide on the design, we took this into consideration and decided to put the maps of our listening/coverage areas on the vehicle and the air staff on the rear door."

Depicted around the station rooster mascot on the rear of the van, clockwise from lower left, are Ted Minier, the PD/operations manager and morning guy; Keith Kitchen, WILQ Webmaster and afternoon talent; Ian Emerson, evenings; and John O'Brien, music director and midday host.

Can a radio console be over-engineered?

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

The radio console, redefined.

Building a great console 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 Axia has hired brilliant engineers who are certified "OCD": **Obsessive Console Designers**, driven to create the most useful, powerful, hardest-working consoles in the world.

Beneath the surface

There's more to 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 we literally scoured the globe for the absolute best parts — hardware that will take the torture that jocks dish out on a daily basis.

Element frames are constructed from custom aluminum extrusions for maximum rigidity. Module faceplates & console side panels are machined from thick plate aluminum. Even the hand rest is a beefy extrusion, all this heavy metal means even the most ham-handed jock can't hurt it.

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 operation inside the studio.

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 that **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; but when

our guys found the switches used in Element, they shut off the machine after **2 million operations** and declared a winner. (The losers got an all-expense-paid trip to the landfill.)

Element's individual components are **easy to service**. Faders come out after removing just two screws. Switches and rotary volume controls are likewise simple 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.

Element uses high-impact Lexan overlays with color and printing on the back, where it **can't rub off**. And instead of just

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. Which means that 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 top of 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

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** in 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.

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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.**

24 / 7 SUPPORT
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There's a reason these board-ops are smiling. Axia consoles are in more than 1000 studios worldwide.

![AXIA — A TELOS COMPANY]

www.AxiaAudio.com

Ideas to Help You Provide Greater Value

We Must Work Harder Than Ever to Meet Radio's Obligation to Our Clients

In a recent monitor of 15 stations in a major market, a friend of mine claimed that there were fewer than 50 unique advertisers broadcasting their messages on those stations.

I suppose that with all the bad economic news, this shouldn't really have been a shock to me. Yes, I knew business was off severely, but I had wrongly assumed that advertisers were cutting back by percentages and not just coming off the air entirely.

After he glumly shared this fact, we began to discuss what, if anything, broadcasters could do to convince companies

PROMO POWER
BY MARK LAPIDUS

That attentiveness begins with ascertaining properly what a client is attempting to accomplish with their advertising investment.

• Do they want to drive in-store business that week?
• How many people do they need to get in the door to agree that the campaign was a success?
• Is this the only media running, or does this complement a print, television, transit or Web schedule?
• Is the creative the same for every medium?

Account executives now need to earn the second half of their title by working harder than ever.

to come back to the air and how in a general sense, we can help improve the overall economic picture.

Of course radio doesn't have a magic wand to jump-start the economy, but we have enough juice to play a small part in generating positive thinking among the general public.

Our news and talk stations must make a concerted effort to report good news and success stories to temper the constant stream of negativity.

Radio's other obligation is to provide greater value to our advertisers. This means making certain that clients get a return on their investment, which requires greater diligence on the part of radio station senior management.

• Is the creative easy to understand and have enough of an incentive in it to drive the required traffic to purchase the product?
• Have they invested enough money to hit the reach and frequency they need to drive action?

Note that these questions are valid in any market size.

Integrate

Here are a few other ideas for you to consider in terms of offering your clients added value.

As much as possible, integrate advertisers into your on-air and online content during their flight.

While this promotional territory typically has been the domain of those few who know how to apply the right pressure, management must see to it that even clients who don't ask should receive consideration in situations where the match is a natural.

Say you have a shoe store advertising for a few weeks and the station is running announcements for an upcoming 10K race.

Would it be possible for runners to get 25 percent off shoes by bringing in their bib number after the race? Could you tag your PSAs with this promotion and would the race permit you to put a flyer in the packet that the runners pick up? Perhaps you could run banner ads that week at little or no cost to the client to further drive this promotion.

Consider integrating clients into news coverage when it make it sense.

This is one you don't want to force when there is no real story, but often we overlook potential stories about unique services or products.

Could you air a story about the opening of a new restaurant? You bet. Is there an incredibly innovative smart phone that's just come out the local phone store? You could interview a customer who bought one, or a geek in the store marveling over its features.

Talent testimonials often are under-utilized to sell products and services; sometimes this has occurred because on-air talent wants a huge sum of dough to participate.

In times like these, it would be wise for talent to reconsider the fees they charge for providing such a service. It's certainly legit for a talent not to want to endorse a product because they don't want the association. For example, a tal-

ent might not want anything to do with a certain restaurant because of a bad experience there. On the other hand, if they love the restaurant, maybe they'd be happy with a few hundred dollars' worth of trade for meals in lieu of a fee.

Text messaging can offer your clients a lot and most don't even know it. If you're not utilizing texting for promotional purposes, you are truly behind the times. There are even a few companies who will work with you on a shared-revenue basis.

Use text messages to kick back electronic coupons, to send reminders about savings on a product or to send back a phone number that they can call in the next 10 minutes to a get a deal on something like a trip somewhere.

For several decades radio has had the luxury of taking clients for granted. Wake up and smell the economy. Account executives now need to earn the second half of their title by working harder than ever.

The author is president of Lapidus Media. Contact him at marklapidus@verizon.net. Promo Power articles are archived under Columns at radioworld.com.

Hanania Blends Radio & Newspaper

Arab-American Morning Host Is Also
A Veteran Political Reporter and Comedian

by James Careless

In radio's early days, newspapers often bought bulk air time (to the point of building their own stations) in an effort to extend their brands locally. It's an idea that was recently revived by the Southwest News-Herald, a Chicago community newspaper with a weekly circulation of 100,000.

Hanania has a few attributes that make him unique.

First, he is a bona fide newspaperman with decades of experience covering Chicago, including for the daily Sun-Times. Second, "I am one of the few Arab-Americans hosting a morning show in the entire country," he told Radio World. "That said, my wife is Jewish and Republican, while I am Palestinian-

(because the radio shows are always video-taped) on Comcast and AT&T Friday nights in Chicago.

"We have a Facebook group built upon the radio show and my own Web site, http://www.radiochicagoland.com, that grew to 140 members after our first three weeks on air," he said. "Add the tie-in to

"We are certainly seeing a lot more traffic to our newspaper Web site," he told Radio World. "Based on my previous experience in radio, I think this show is doing well."

As for the future: Hanania said that his newspaper is committed to support air time in WJJG's morning slot "for the long haul," and he looks forward to expanding his show's presence onto 10 to 15 stations regionally.

"One day, by using the Internet as a

> **If I called a senator on behalf of my**
> newspaper, they put me over to the PR guy.
> But if I'm calling for the WJJG morning
> show heard in Chicago, the senator
> himself wants to talk to me.
>
> — Ray Hanania

my columns online at *www.swnewsherald.com*, and we have quite a powerful multimedia structure where each element reinforces and feeds all the others."

Hanania said he receives 15 to 20 calls and lots of e-mails per show, which makes him bullish about his show's performance and its benefits to the Southwest News-Herald.

distribution backbone, I could see syndicating it nationwide, allowing listeners to phone in using 800-numbers," Hanania said.

"Radio is really proving itself as a viable medium for promoting newspapers — which is what this venture is all about — and I can see big things coming from this." 🌑

Ray Hanania in the WJJG 1530 AM Radio studios
in suburban Berkeley, Ill.

To boost its presence in the Chicago market and to drive more people to its Web site, the News-Herald launched its own morning show on WJJG 1530 AM in the Chicago suburb of Elmhurst.

Initially paid for by the newspaper but now fully advertiser-supported, "Mornings with Ray Hanania," hosted by its star political columnist, runs Monday – Friday from 8 to 9:30 a.m.

Why radio?

The decision to buy air time at WJJG on a daily basis — at about $150–$200, based on current markets rates — may seem an unusual step for a community newspaper, especially during the prime (and expensive) morning drive slot.

However, given the ongoing problems being experienced by the newspaper industry in general, the move made good marketing sense for the News-Herald.

"Radio is the one medium that fits easily into people's schedules," Hanania said. "By putting ourselves into their cars as they drive to work, we make ourselves a part of their daily lives. This motivates them to read our newspaper and come to our website, and that helps our advertising sales."

Unique host

Journalists — or at least those who bill themselves as such — are a dime-a-dozen on U.S. talk radio. However, Ray

Christian and Democrat, so I know a lot about cultural and political gaps. Don't tell her, though. She thinks I'm Puerto Rican."

In fact, Hanania is the "Palestinian" part of the Israeli-Palestinians Comedy Tour, a cross-cultural troupe that promotes Mideast peace by getting people to laugh at the situation.

"As a Palestinian peace activist, I use humor to help Palestinian, Jewish, Arab and Israeli audiences recognize the humanity that exists behind the tragic headlines we face in the Middle East conflict."

Although Hanania does like to inject humor into his morning show, his shows deal with serious political issues, and attract high-profile guests like Rep. Jesse Jackson Jr. and Sen. Dick Durbin.

"The thing I like about radio is how much easier it is for me to get to politicians," he said. "If I called a senator on behalf of my newspaper, they put me over to the PR guy. But if I'm calling for the WJJG morning show heard in Chicago, the senator himself wants to talk to me."

Maximizing the reach

"Mornings with Ray Hanania" is heard live on WJJG and streamed via *www.radiochicagoland.com*, Hanania's site. Selected segments are also made available as podcasts at *www.wjjgam1530.com*, and aired on Hanania's weekly cable show

STATION SERVICES

Radio Theater Group Offers Shows for Syndication

The Crosley Radio Players are offering shows for syndication.

The group is based in Terre Haute, Ind., and was featured in a recent story in Radio World ("A Lesson From the Ghost of Radio Past," Feb. 1).

Spokesman Jerry Arnold said response to that article helped prompt the move to offer the content to other stations.

"We put on four to six shows a year, doing *live* recreations of 1930s, '40s and '50s radio programs. We use only the original scripts, and as you saw in our photographs, also use period-correct RCA 44b and 77dx stage microphones. Many sound effects are done live on stage."

Price is $500 for markets 1–50 and $250 for all other markets. The syndication package includes a broadcast-quality CD of the entire show, with slots for local commercials, plus a license for one broadcast, market exclusivity, the first offering in said market for any subsequent programs, recommendations for marketing and, as soon as it is complete, a listing in the Crosley Players Web site.

E-mail Jerry Arnold at k9af@aol.com or call (812) 232-4161.

Farber Expands

CRN Digital Talk Radio expanded "The Barry Farber Show."

The conservative talk show went from one to two hours. It airs Monday through Friday 8–10 p.m. ET on CRN Digital Talk Radio.

The show has also added affiliates WGIG(AM) in Brunswick, Ga.; WLXN(AM) in Lexington, N.C.; WUVR(AM) in Lebanon, N.H.; WNTK(FM) in Norwich, Vt.; and KGDC(AM) in Walla Walla, Wash.

Farber launched his radio career in New York in 1960 (William Safire, working for Tex McCrary, hired him as a producer) and began hosting a national talk show on the ABC Radio Network in 1990.

For information contact the company in California at (818) 352-7152 or visit www.crntalk.com.

Consultant FoxRock Targets Smaller Stations
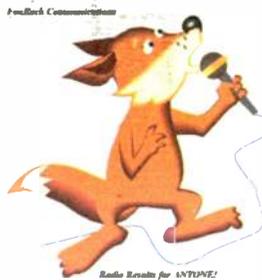
FoxRock Communications is a new consultant that specializes in working with small radio stations and with an eye toward talk and sports programming.

The company launched with Matt Smith as president and CEO, Dave Baum as senior vice president and Chicago radio voice Bob Dayton as senior consultant.

FoxRock offers services on an a la carte basis, which it says helps clients to get the help they want without having to pay for services they don't need. Traditional and premium consulting packages also are available.

"There are hundreds of radio stations or on-air personalities who can't afford a consultant, but would likely want one if they could pay for it," Smith said.

Smith's background is in sports radio, with experience at Pro Football Weekly Radio, The Formula One Radio Network, the Schaumburg Flyers Northern League Baseball team, the Chicago Bulls and White Sox Radio Networks, Matrix Media and Syndication Networks.

For information contact the company in Illinois at (847) 420-3236 or visit www.foxrockcommunications.com.

Jason Lewis Goes National

Premiere Radio Networks kicked off syndication of evening program "The Jason Lewis Show." It airs on weekdays from 6 to 9 p.m. ET.

A frequent guest host for Rush Limbaugh, Lewis has been a popular host in Minneapolis. The show grew out of KTLK(FM) in Minneapolis/St. Paul.

Lewis has been the drive-time host on KTLK since August 2006; he's a former host on WBT(AM) in Charlotte, N.C., and also was at KSTP(AM) in Minneapolis. He holds a masters of arts degree in political science from the University of Colorado-Denver and a bachelor of arts degree in education/business from the University of Northern Iowa. In 1990 he ran for Congress in Colorado as a Republican.

"My program is about finding answers to the problems we face every day … It's more about what works than the political nitpicking behind it," he stated.

For information call (818) 377-5300 for affiliations or visit www.premiereradio.com *to hear a sample.*

Radiothon Raises $2.2 Million For Salvation Army

CBS station WOMC(FM) in Detroit recently held what was described as the country's biggest single-day radiothon to raise $2.2 million for The Salvation Army.

Dick Purtan hosted the 16-hour event, which featured call-ins from Tim Allen, Fred Willard, Jeff Daniels, Al Roker, Frank Caliendo and Kathleen Madigan.

Donations will help provide meals and shelter for men, women and children through the "Bed and Bread" program that the Salvation Army runs in Michigan.

The 22nd annual Radiothon was broadcast from Oakland Mall in Troy. Tim Allen pledged to match donations up to $20,000; in an hour he raised $110,452.

Purtan was honored by the Salvation Army in 2006 with its Evangeline Booth Award and over the years he has helped raise nearly $22 million.

The regional Salvation Army division has reported an increase in need this year, citing problems in the auto industry and a 10.6 percent unemployment rate.

Consultants

EMPLOYMENT

POSITIONS WANTED

An array of sports knowledge, mixed with an engaging, entertaining personality. Seeking a sports broadcasting opportunity. Call Zach, 904-400-0602 or zjt105@aol.com.

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Creative and outside the box! Strong work ethic and passion for radio. On-Air Production, Copywriting, News, Promotions/Advertising. Logic-Pro, Cool Edit, Adobe Audition, DRS. Dan 214-207-6235 or danmartinezjr@gmail.com.

Extremely proficient production guy – multitude of software. Technical/computer savvy, and well rounded. Very creative copywriting, plus good sports/music knowledge. Austin, 214-287-5133 or aelong2004@yahoo.com.

Fresh face, good attitude and extremely tenacious. Jovial, influential and outgoing female. Strong Promotions/on-air abilities, plus show prep, delivery, and creative writing/copy. Jennifer, jab2981@hotmail.com or 214-607-3905.

Powerful On-Air Talent plus experience. Sufficient knowledge of broadcasting, computer systems, and editing programs. Board-op, copywriting, voicework, prep and segment strengths. Ryan, 817-680-6181 or ryanbarnes0201@yahoo.com.

Talented copywriter, with smooth on-air presentation. Dependable, and deadline oriented. Good editing/production skills. Works well alone, or within a team. Trent Elrod, 817-353-0988 or elrodtrenton@yahoo.com.

Talented on-air/digital skills, plus Bilingual. Intelligent, personable and creative. Responsible, strong credibility in news, journalism and ethic. Wrote for college newspaper, freelance writer. Daniella, 972-513-7376 or serena909@hotmail.com.

Are you a small market station needing a good nuts & bolts engineer in the Los Angeles area?   I will make your station shine! CET, fully FCC Licensed. Available for Full/Part-time/Contract work. Available immediately. Mitchell Rakoff, 949-916-6255 mitchellrakoff@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.

TRANSMITTERS/EXCITERS/TRANSLATORS

WANT TO SELL

100 Watt Henry Transmitter, 250 Watt Henry Transmitter, Inovonics 222 Processor, five Tapecasters and serveral hundred feet of 7/8" coax for sale in Arkansas. Call 479-234-5427.

Continental "Power Rock" 315R-1 on 670 KCS, 5KW. In Arkansas. Call 479-234-5427.

10kW Dummy Load, forced air cooled, never used, in factory box, $2200 + shpg. KQSS Radio, John, 928-595-0263 or Bill, 928-425-7186.

Versacount Loral EX-80 exciter, gd cond, $750. M Taylor, 417-451-5636.

CCA AM 10,000 D – Call John KQSS 928-595-0263 between 10 & 6 PM Pacific Time.

FM Translator at 104.5 – Manchester, KY Call Joey Kesler 606-843-9999.

WANT TO BUY

Collins 831, wanted for parts, does not need to work, will pick up. K Smith, 989-350-8420.

Used Harris 5kW or 2kW xmtr or Omnitronix 2500A xmtr power output module (part # A213100R2). D Sandifer for more info, 256-682-8408.

AM Phasors, Phasor Parts, Phase Monitors, Rf Switches, AM Transmitters. Continental Communications 314-664-4497, Contcomm@Sbcglobal.Net

TUBES & COMPONENTS

ADVERTISER INDEX

This listing is provided for the convenience of our readers.
Radio World assumes no liability for inaccuracy.

◆ READER'S FORUM ◆

FM Band Expansion

I am a long-time radio listener who works at a hospital. I read with interest Philip E. Galasso's article in the Feb. 11 issue of RW online ("Expanding the FM Band Is a Great Idea — But Keep It Simple"). I would like to expand on his point No. 2 regarding opening up the AM band.

Besides content, if AM is going to survive it will have to be able to get through all the electronic static that has occurred the last 30 years. If all the Class C AMs moved to an extended FM band at 25 kW at 100 meters, that would solve the nighttime mess that occurs now. That would also open up six more clear channels.

If all Class As were up to the Rio maximum of 100 kW, this will help in fighting the aforementioned static. This includes the former 1Bs. No clear should have more than four to six stations. All others would move to either the exFM or the new clear.

As an example, 1230 could have WEPN and WAPI from 1050 and 1070 as the A(1B)s. This would give Alabama a statewide EBS station for emergencies.

Two full-power 50 kW B stations could be on the West Coast. 1240 could have

> **If all the Class C AMs moved to an extended FM band at 25 kW at 100 meters, that would solve the nighttime mess that occurs now.**
>
> — Jeff Bottalico

WDIA (1070) and WJAX (1010) as the A(1B) with a full B in northeast and southwest United States; 1340 could have WINS (1010) and a Mississippi station as the A(1B); 1400 could have WDFN (1130) and WGUN (1010); 1450 could have WISN (1130) and KBLA (1580); 1490 could have WLQV (1500) and KRMG (740) along with up to two full Bs.

In return for the increased power, the stations would be required to be able to broadcast emergency news and info as EBS stations.

Any state that doesn't have a full 50 kW or stronger station could bump up a regional channel to serve as the statewide EBS station.

For example, New Hampshire could upgrade WGIR 610 to 50 kW to serve that purpose. Quebec already sent their 610s to FM. All that would be required is moving WSNG to 1360 as a WDRC sync transmitter, and bumping WIP and CKTB to 10 kW on their present signals. I would also cull the weaker regionals to FM and have the major regionals transmit at least 10 kW day and 5 kW or more at night.

I would also agree with Mr. Galasso on AM IBOC. There seem to be too many problems with it especially at night. Leave it for FM. But even there, compelling programming is needed to make it work. Minor variations on the analog format won't work in the long run.

Jeff Bottalico
Honolulu

Analog or Digital, Not Both

Mr. Galasso's suggestions about the proposed expanded FM band are based more on compatibility today rather than looking forward to tomorrow. The proposed band is new territory; let's not encumber it with old technology.

Here are my replies to his comments (by section) with which I have issues:

1. If digital is the way the world is going, let's not saddle the new band with the kludge that is iBiquity. Allow either analog or digital; not both. Existing radios won't tune the expanded band anyway; converters can have digital decoders built into them; and new radios can have the ability to decode any popular digital signal in use. These radios are available now, and they will get cheaper with mass production.

2. The proposed plan calls for a "re-farming" of the AM band leaning towards full-time high-powered stations with wide coverage. This will accomplish a lot of what Mr. Galasso suggests.

3. While I agree the translator situation has gotten completely out of control, that is the subject of another proceeding. However, I do agree that translators should not be allowed in the new band.

4. There is nothing more wrong with the present frequency and power allocation scheme than what we have today! The original scheme was fine for its day, but that day is long past. The FCC has patched the present scheme as best they can, mainly by adding subclasses of the original As, Bs and Cs, but today there are disparities that are a mockery of the original Table of Allotments.

I've long advocated for a *new* broadcast band for stations to migrate to and be *full digital*. An expanded FM band gives us the opportunity to do just that.

Jerry Mathis
Market Engineer
Clear Channel Radio/
Urban Radio Broadcasting
Tupelo, Miss.

Expansion Would Be a Boon

I second Philip E. Gaiasso's Guest Commentary regarding the expansion of the FM band to include the existing AM stations and to help phase out translators and other air traffic that has cluttered our airwaves with adjacent-channel hash and on-channel interference.

Every point he made was salient and in my view necessary to the overall health

◆ READER'S FORUM ◆ ◆ READER'S FORUM ◆

of radio worldwide as well as in the United States.

I too see no reason to convert a newly expanded FM band into a digital service. Things are complicated as it is, and analog technology readily exists in many small markets, such as ours, for the listeners to tune in.

Many rural AM stations such as ours would benefit greatly from the new FM service. I would like to see this service as an analog one, though, until we can get the bugs worked out of digital broadcasting.

In my opinion analog FM broadcast technology isn't broken, but it definitely is overcrowded, one reason a few have been pushing for digital IBOC. I believe once the expanded band is allowed to "come into its own," the need and push for IBOC will be considerably diminished and perhaps could become a moot point.

No small station in unrated markets can afford the ridiculous licensing fees imposed by digital broadcast license holders anyway. If you want to see local service disappear entirely, just make digital broadcasting mandatory and you'll see local radio dry up like a raisin. Heaven help us if AM is forced to use IBOC digital broadcasting.

I believe, like many of your readers, that from an engineering standpoint it's a disaster waiting to happen if it is purveyed onto the broadcasters and the public. Getting receivers that are of high quality for any existing radio band is hard enough; digital receivers in our neck of the woods simply do not exist.

Analog is just fine as it is. Just get the band uncrowded and rescue AM from the sea of unrelenting man-made noise caused by computers, dimmer switches, cell phones, CD players, poorly balanced power lines, amongst others.

Thank you, Philip, for outlining some of the concerns that I have for our business, where engineering and ease of use for the public are concerned.

Marvin Walther
Chief Engineer
Carroll Broadcasting
Tawas City, Mich.

You Knocked Me Off My Chair

Paul, while I enjoy Radio World and your writings immensely, please refrain from too many shocking statements that tend to knock me out of my coffee-stained Engineering Office chair (Feb. 1, "For Mike, the Messages Are Mixed").

In your column, "Mike" overwhelmingly agrees with Mark Mays at Clear Channel that caps should be eliminated for station ownership and that a single company should be allowed to own all the stations in a single market.

That change would not only eliminate fair trade, competition and what little "public choice" of programming there exists in several markets, but would probably eliminate any "localism" above and beyond what is now required of radio stations.

Often, large group owners such as Clear Channel and even some cluster owners put up stations that are nothing short of a transmitter, antenna, PC, satellite receiver and EAS unit, with a sales

office disguised as the "local office" in the city of license.

This does not in any way "serve the public interest" or benefit that small town that has a tornado barreling down on it or is sending their Little League team off to the World Series while the local radio station is playing 24 hours of satellite music, oblivious to what is happening outside the nonexistent studio door.

While I agree radio often runs up against unfair advantages of conglomerate-owned media companies owning too much in a single market, I am shocked someone in radio would suggest throwing more fuel on the fire.

I am *not* surprised to see such an idea coming out of the mouth of Clear Channel management. They would benefit from it the most. Ask them about recent cutbacks resulting in stations becoming mostly "syndicated."

Given the newly elected administration in Washington, I will probably be even more "shocked" in the future with their policy changes than with this stance on station ownership. Meanwhile, please let those of us who still believe (falsely?) in fair competition in the marketplace and a local presence in the small and medium markets keep our jobs a little longer.

I am very fortunate to work for a five-station group that still has a local news and sports department and follows little Johnny's baseball team to the championships even though we may lose money on the broadcast. That is what management here believes in: localism. By some amazing feat, we are even able to make payroll and pay the electric bill too! I doubt that game would be covered if one owner had all the stations in town.

We try to stand out by our promotion of community events and activities, and this has often forced the competition to do the same.

Finally Paul, please define the term "whipsaw" for me. I am by no means master of the English language, but it used to be customary in articles in magazines and newspapers to define slang or historical terms or spell out acronyms (such as you did with EBITDA) for those of us few broadcast engineers still barely under 50. I have often seen uncommon acronyms used repeatedly in articles in RW and other trade magazines without being defined.

Allan A. Augustyn, W8FYZ
Engineer
Radio Results Network
Escanaba, Mich.

Ed. Note: The American Heritage dictionary offers this as one of the meanings of whipsaw: "To cause to move or alternate rapidly in contrasting directions," as in the quote, "The bond market ... continues to be whipsawed by fears of rekindled inflation."

Say No to 'Mike'

As a 60-year-plus broadcast content supplier who really enjoys RW, I'm 110

percent opposed to even the whispered idea that *"one operator"* should have control of an entire community's broadcast spectrum.

I think you've gone nuts printing "Mike's" crazy ideas. They sound like something you dug out of Vladimir Putin's wastebasket.

What would happen if an atheist or Muslim newspaper mogul could forestall *all* local religious broadcasting in a market he controlled? A spectrum "boss" as "Mike" might envision could hate grand opera or country music and might decree that neither Placido Domingo nor Alison Krauss would ever grace his domain again.

The Greenville-Spartanburg market, in which I live and work, has 25 to 30 listenable radio signals, maybe more. Five or six are programmed totally in Spanish. Less than 1 percent of our target population understands Spanish. Does that make sense?

One 5 kW AM nondirectional recently was sold by Bob Jones University to an evangelical Spanish group. That would never happen under an immigrant-hating, Christian-bashing total ownership/control of the market plan.

It's a hundred percent, totally crazy, socialistic idea.

Look. We have a totally Roman Catholic-programmed AM station in this market. *That's diversity*, right here in the middle of the buckle on the Bible Belt.

Or reverse it. Suppose the pope or a council of North American bishops wanted to pour sufficient Vatican funds into South Bend, Ind.'s, broadcast market to control it. Would *any* evangelicals be allowed? Ask Mike ... or tell us what *you* think. I think it's nuts.

Stick to what you do best, Paul. The *Workbench* column is great. I like to read the promotional ideas even though that's not a need I have right now. Keep up the good broadcast *technical* work ... forget the screwy HD Radio ideas ... not enough people know about it or want it to make it successful.

NAB is OK but hardly represents the small-market guys. They move with the heavy hitters, Clear Channel etc. But the real long-lasting lifeblood of radio is in the small to medium markets. That's where the dollars are for most of us and it certainly provides more jobs, even if they aren't in the top tier of salaries. The manager of my last small-market station (about 60,000
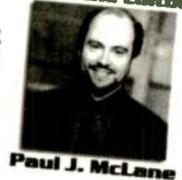
population in a rural North Carolina county) was still using tape-cartridge machines when I joined him in 2001. But *nobody* else gives out the school lunch menus ... or tells the anxious moms if the school busses are running on an icy morning.

You can still be friends with "Mike." Just tell him he should lay off the firewater. It kills the kidneys.

Jack Buttram
Taylors, S.C.

The Spectrum Isn't Yours

Paul, I am a long-time lurker and reader of your editorials and thoughts.

I couldn't help but notice that "Mike" and Mark Mays of CC were agreed that a single company should be allowed to "own" all the "stations" in a community and to compete with the local cable, satellite, etc.

As an old-time broadcaster since the 1960s, let me add a hearty endorsement of their right to own all the "stations" they want. They can have all the bricks, mortar and equipment they desire. However, they need to be reminded that the broadcast spectrum belongs to the American public and to the people and the communities of license. Private interests don't own the slice of spectrum; they are granted as a public trust.

If you can show me how allowing a monopoly licensing in a market or a community would serve its community in a responsible way, I would be most attentive.

Spectrum needs to be managed in "the public interest." I can promise you, neither Mike nor Mark have the public interest at heart when they are trying to find ways of "monetizing" their licenses. Spectrum is not private property, and it should never be treated that way. Like public lands and parks, it belongs to all of us, not just the marketers and business world.

Mike and Mark agreed that, "If a single operator controlled the entire band in a community, that operator would be able to re-farm the spectrum ... using it much more efficiently and creating many new services."

I doubt that would be the result. Monopolies are usually good for only one entity, the monopoly itself. New "services" for "consumers" is not the same thing as more interesting and useful content for "listeners." Diversity of opinion, localism and a rich palette of content are more important to the "public interest" than improving competitive positions for rival commercial media sectors.

Robert Simmons
Austin, Texas

Armchair Violations Are Troubling

The FCC Practice of Slapping Self-Reporters Is Counterproductive

One of the great "Catch 22s" of broadcasting is the Federal Communications Commission's practice of issuing "armchair violations."

A series of yes/no questions is asked on FCC Form 303-S, an application for license renewal, covering EEO, public file and other issues. The catch is in the Public File question, which states: "Licensee certifies that the documentation, required by 47 C.F.R. §73.3526 or §73.3527, as applicable, has been placed in the station's public inspection file at the appropriate times."

Can this question ever be answered "yes" with absolute integrity and certainty? Was there ever a time during the *eight years* of your license term in which a document was placed in the file a day or two late? For that matter, can a licensee be certain that someone looking at the file at some point during the term did not find a document to be missing?

The thing to do in many cases — and this is what many stations have done — is to check "no" and offer an explanation in an exhibit, explaining that while the file now is complete, the licensee cannot state with absolute certainty that all required documentation was placed in the file at exactly the appropriate times over the entire license period.

The trouble is that the FCC can and does issue "armchair violations" in such cases, which it sometimes views as de facto admissions of rule violations.

By taking the alternative and checking "yes," licensees run the risk that at some point, some person has observed a required document to be missing and reported the incident. That report could well trigger prosecution of the FCC's grand mal violation: misrepresentation.

This practice seems unfair. An analogy might be when you go to the DMV to renew your driver's license. The clerk asks, "Have you at any time during the expiring term of your license violated any traffic law?" If you answer no, perhaps the clerk has a traffic camera photo of you running a red light. If you answer yes, there is a policeman standing there with his ticket book.

This represents a no-win situation, and so does the FCC's renewal app public file question. Further, the fines for such violations tend to be felt by smaller stations and NCEs much more keenly than big companies.

We understand why the FCC would be concerned about cases like the station in Arkansas whose public file was incomplete for almost seven years and was missing 26 issues/programs lists. There's a difference between a station that simply missed or misplaced a document and one that essentially doesn't even have a public file.

But even in such cases, we feel troubled when the staff declares, as it has, that stations can expect no good will for self-reporting on the renewal form or for having taken corrective steps, after discovering a problem, to make sure it doesn't happen again.

We encourage the FCC to rephrase its question to ask if, to the best of the licensee's knowledge, the required documentation was placed in the file at the appropriate times, and the licensee has substantially complied with the public file rule in good faith. Such phrasing avoids backing a licensee into a corner with no good place to go.

Also, isn't it time to do this online? In these days of electronic documentation it would seem a relatively minor task to create an online database in which licensees could place their issues/program lists. This would be as easy if not easier than printing the paperwork and moving it to a specific locked file cabinet and wouldn't require half the staff to be trained on how to find the filings. If the FCC is in a mood to write fines, it can do a search of the database and see who filed the lists.

But we further encourage the FCC to stop the practice of issuing "armchair violations." In our view, this practice does nothing but promote misrepresentation on renewal applications. And if it must enforce this way, give credit to stations that have been honest and taken steps to address a problem.

— Radio World

◆ READER'S FORUM ◆

A Misleading Story Presentation

I take strong exception to the Randy Stine front-page article in the March 11 issue that insinuated that the listing of "off-air stations" is caused by the current downturn in the economy or that bankers are causing this to happen. Certainly, a bit of more investigative work would have cleared up a lot.

Here in Wisconsin, we have two AMs that are dark. One has a company owner that declared bankruptcy, funded by a multi-millionaire who woke up one morning and decided the business plan he dreamt up didn't work, apparently from the beginning. The second AM is having a problem getting a satellite dish installed at their new location, in the dead middle of winter.

As far as the three silent FMs in Wisconsin, one is moving to a larger market and changing frequencies. Another is in the non-commercial band and owned by a national operator of religious programming, seeking a local studio waiver. The third FM that is dark is apparently operated by that same millionaire who ran out of ideas but didn't run out of money.

To paint the economy as the reason for stations going silent is not accurate, nor to describe this as a "practice." It is something that happens sometimes. The real reasons may not always be affected by the economy. A simple review of the filings at the FCC would have shown otherwise.

Mark Heller
President/General Manager
WGBW Radio Station
Two Rivers, Wis.

Ed. Note: RW did not intend to imply, in publishing the charts of currently silent stations, that all of them had gone silent due to economic conditions. The story text made clear that stations go silent for various reasons, though it explored the question of whether the pace had picked up, as some have perceived anecdotally.

HD Radio & Radio Reading Services

I read the David Noble article in the Jan. 14 issue ("Why Accessible Radio Standards Matter").

My mother was nearly blind for the last 20 years of her life, so I can appreciate the value of radio reading service broadcasts. But you are going down a dead-end street in trying to use IBOC/HD Radios for this service.

As a radio station owner I have no intention of wasting money on IBOC. This is a failed technology. There will never be enough receivers to justify not only the expense of installing IBOC equipment but also the cost of license fees to iBiquity.

A more practical system would be one based on the digital subcarrier equipment now on the market. Installation costs for the station are less than one-fifth of that for IBOC, plus there is no ongoing licensing expense for the station.

True, this still requires the design of special receivers for visually handicapped listeners. Since this would remain a "subscription" service, copyright issues can be avoided, as they can with current analog SCA receivers and the now-obsolete receivers for TV SAP channels.

But the idea that there will be a wave of consumer IBOC receivers that can include the special features mentioned in the Radio World article is a pipe dream. Or a fantasy pushed by some federal contractor.
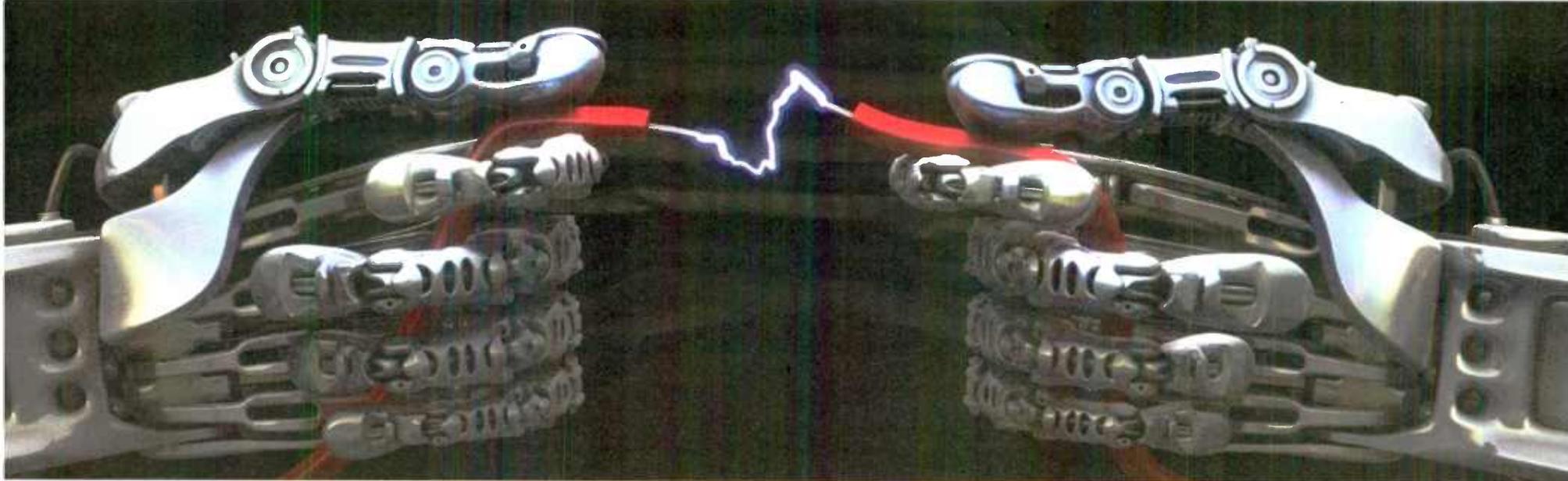
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Write to RW

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.

World Radio History

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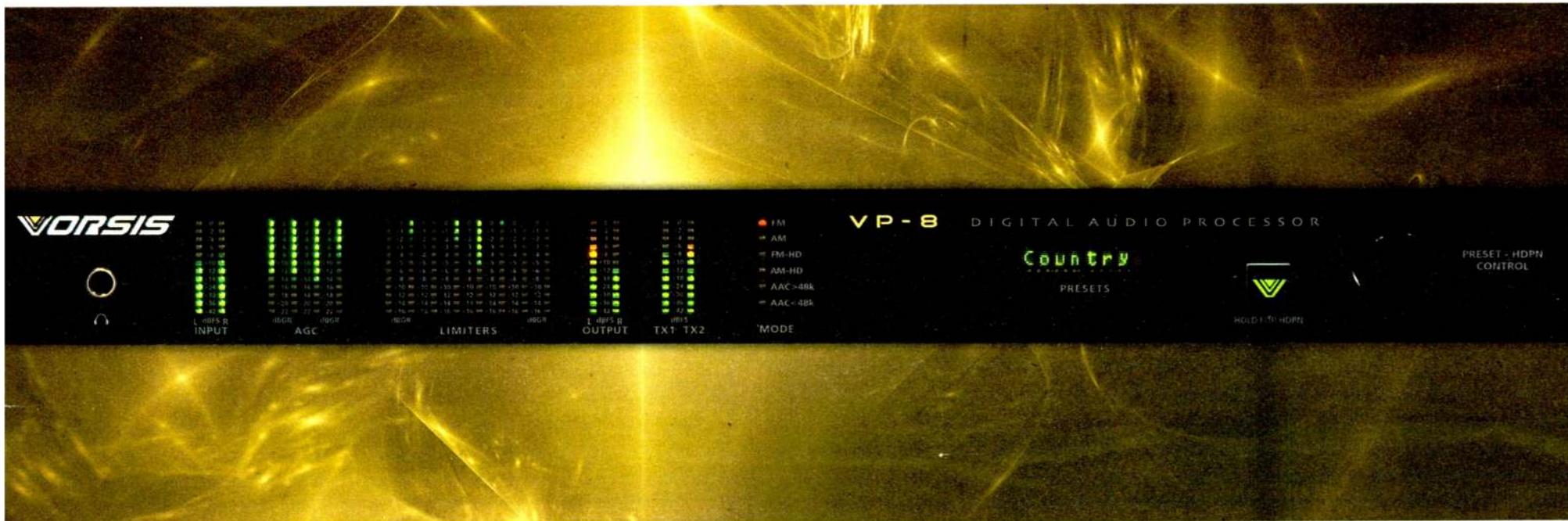
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