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Ad Subtraction
Converging forces cause radio to rethink its revenue model.
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David Hollyer recalls Cold War remotes at Radio Free Europe.
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Radio World®

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INSIDE

NEWS ANALYSIS

Surround Sound Explored

by Dave Casey

HD Digital Radio boasts many new features over its analog predecessor including digital audio that is free from multipath and enhanced text displays that scroll song title and artist information.

While these are improvements upon analog radio, Europe's attempts with digital radio broadcasts tell us that these features alone might not be enough to sway consumers to trade their existing car stereos for a new HD Radio model … until now.

In the age of home theaters in a box, DVD players in cars and 5.1 surround sound video games and movies, three entities believe surround sound is the "killer app" for the HD Radio market.

The three advocates include: a partnership of Telos Systems and Fraunhofer; a partnership of Harris/Neural Audio; and SRS Labs. Separately, these three demonstrated techniques for surround sound encoding at the spring NAB convention.

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TILES AND TRIM

Buyer's Guide rounds up the latest studio design products and furnishings.

Page 32

Vendors Say It's a Buyer's Market

by Naina Narayana Chernoff

WASHINGTON Have you ever bought radio equipment and wondered whether you got the best price?

Although they enjoy a bevy of models, manufacturers and dealers from which to choose, many station engineers have little time to shop around. But choosing the right vendor and getting the best price doesn't have to be a matter of luck, according to sales managers of several equipment dealers.

By using knowledge of the market, building relationships with dealers and judging vendors by their sales and service records, buyers can get the maximum benefit from radio equipment vendors, these experts believe.

"Fortunately for buyers, the reality of the situation today is that pricing is very good," said Tim Schwieger, president of Broadcast Supply Worldwide. "Because of the nature of competition, there's a real opportunity to get a good price."

Some manufacturers of equipment choose to sell their products directly to users, bypassing dealers. But although that practice is common in the post-consolidation era, dealers remains an active part of the

See VENDORS, page 7 ▶

XM to Start 'Public Radio Channel'

by Leslie Stimson

WASHINGTON A migration of notable air talent to satellite radio seemed to be accelerating in recent weeks.

In a continuing effort to broaden its audience, XM Satellite Radio is launching the Public Radio Channel, featuring programs from familiar public radio suppliers as well as a new program by former NPR talent Bob Edwards. XM Public Radio, Channel 133, debuts Sept. 1.

Meanwhile, XM also planned to launch more channels dedicated to local traffic and weather in major metropolitan areas.

XM Public Radio will be anchored by a new 60-minute morning show hosted by Edwards, the former National Public Radio "Morning Edition" journalist, leading some observers to speculate it marks the beginning of a migration of nationally known on-air talent to satellite.

Indeed, shortly after word of Edwards move, "Opie & Anthony," fired by Infinity two years ago for their St. Patrick's cathedral sex stunt, also went to XM. Their show will air weekdays beginning Oct. 4 on a premium channel.

The foray into public radio programming is new for XM; Sirius has four channels dedicated to such programming. Two channels are devoted to NPR programming and the other two are dedicated to programming from Public Radio International and the BBC World Service, which PRI distributes in this country.

The relationship between NPR and Sirius is exclusive. NPR initially developed a special program unit to create original programming for Sirius, then had to backtrack when the service delayed its launch. Now the network is studying the makeup of its audience on the Sirius channels to determine, in part, whether it should place its signature programs, "Morning Edition" and "All things Considered," on those channels.

'Bob Edwards Show'

The new XM channel will contain a mix of programming produced by XM and various public radio program suppliers such as Public Radio International, Boston public radio station WBUR(FM) and American Public Radio, the new distribution arm of Minnesota Public Radio. APR will provide programming from MPR and Southern California Public Radio.

Photo by John Harrington

Bob Edwards

"The Bob Edwards Show" is a daily one-hour news magazine format slated to debut Oct. 4. The show is to air weekdays from 8 to 9 a.m. and then repeat. The placement puts Edwards new show in competition with "Morning Edition."

"The Bob Edwards Show" will feature in-depth interviews with newsmakers, journalists, entertainers and others. Former NPR producer Mark Schramm will serve as the show's executive producer. Schramm has worked in public radio for 20 years, including producing stints on "Morning Edition" and "Weekend Edition Sunday," and has

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Index

FCC Scrutinizes EAS

WASHINGTON The FCC is overhauling the Emergency Alert System. Up for discussion is whether the commission should mandate broadcast participation in non-national alerts.

Such participation in national alerts is mandatory, although the system has never been used for its original purpose. The CONELRAD system, precursor to EBS and then EAS, was established in 1951 during the Korean War to send a message from the president to Americans during emergencies.

Past reports indicated the commission would issue a Notice of Inquiry on the topic but, in August, the commissioners shortened the time it could take to set new EAS rules and unanimously issued a Notice of Proposed Rulemaking.

The agency seeks public input on how EAS can be improved to become a more effective warning mechanism. Because much of the participation is voluntary, the effectiveness of the EAS is uneven, observers say. Broadcasters have said local and state governments are not mandated to tie in to EAS, leading to communications problems among stations and emergency planners at times.

The EAS review stems in part from recommendations of the Media Security and Reliability Council, an FCC advisory committee and the Partnership for Public Warning, a private-public partnership.

FCC Enforcement Bureau Chief David Solomon said that when the system was created, it was conceived primarily as a national warning system. Now an action that would generate a warning message is more likely to be a local event.

Three years since 9/11

"Since 9/11, the FCC and others have been considering ways of strengthening EAS. This NPRM, important to the future of EAS, should help local emergency planners and the private sector work together," he said.

One of the questions the agency is trying to determine is whether it should require broadcasters to air state and local alerts and how that might work

"There are different levels of warnings built into the EAS protocol. Part of what we'd be looking at is how we'd be differentiating between the levels," said Jim Dailey, chief of the Office of Homeland Security within the Enforcement Bureau in an interview with Radio World.

Photo by Leslie Stimson

From left, Linda Kinney of the Office of the General Counsel and David Solomon, James Dailey, Greg Cooke and Linda Blair of the Enforcement Bureau discuss EAS with commissioners during the August public meeting.

"The EAS structure allows for up to a two-minute message (to be aired). We're looking at how that structure works, having broadcasters activate EAS and ultimately what the mechanism would be for that participation."

Now, stations must relay all national alert messages immediately, and the national monthly alert test messages 30 minutes after they are received. If a station is unattended, it must set up its EAS encoder/decoder automatically to interrupt programming to relay these messages.

The EAS encoder/decoder can be set up to ignore, delay or relay messages of various alert levels, ranging from a "watch" to a dire emergency.

The commission also is trying to figure out ways to bring EAS warnings to personal digital devices, disabled listeners and non-English-speakers.

Several commissioners characterized EAS as "from another era" and "antiquated."

"We need to either upgrade this system or to replace it with a more comprehensive and effective digital warning mechanism," Commissioner Kevin Martin said.

The FCC will coordinate its efforts with the Department of Homeland Security, the Federal Emergency Management Agency, the National Oceanic and Atmospheric Administration and the National Weather Service.

Comments were due 60 days after the item was to be published in the Federal Register.

— Leslie Stimson

XM

▶ Continued from page 2

experience as director of NPR Sports.

Schramm will lead an internal production team of existing staff to support the show, said David Butler, an XM spokesman.

The Edwards program will air from an existing studio, rather than from a newly built space.

Content on the new channel will contain underwriting announcements in the programming as provided by the distributors, but details of how those would be sold and how the money is to be distributed among the partners has not been made public, Butler said.

NPR had replaced Edwards with two anchors in March and named him a senior correspondent in an effort to freshen the format. With this announcement, Edwards has left NPR.

Edwards was believed to earn more than $200,000 a year at NPR. Had he stayed at the network, he would have earned at least the same base, less a bonus for night differential, said public radio sources.

The removal of Edwards as host resulted in more than 35,000 e-mails from listeners voicing their displeasure about the change to NPR.

When asked about Edwards' salary at XM, Butler said the terms of the deal were not being made public.

Talent moves?

Some radio observers wonder if other major on-air stars will migrate to satellite radio.

This is likely due to two trends, according to this school of thought: the increasingly tight program formatics of post-consolidation radio due to the profit demands of Wall Street investors, and the rising number of zero-tolerance indecency policies being implemented among large commercial radio groups.

FCC indecency rules do not apply to satellite or cable operators, although NAB and some lawmakers and consumer groups have lobbied for their inclusion, arguing that the audience doesn't make such a distinction.

Regarding indecency, much speculation has occurred in printed reports about the likelihood of Howard Stern moving to XM when his Infinity contract is up. Butler told Radio World, "We do get asked about a lot of personalities. We don't speculate about possible or future programming. Stern is under contract (at Infinity) for an extended amount of time."

Edwards was close to winding up a book tour when he broke the news of the XM job in July.

"I think XM is reviving and reinventing radio," Edwards said in a statement. "It's something entirely new. At the same time, it brings radio back to its past glory."

NPR management also issued a statement, saying, "Bob has informed us of his decision to end his distinguished tenure at NPR and in public radio. We wish him the best of luck in his new endeavor and thank him for the contributions he has made to public radio."

XM's new channel "XM Public Radio" will feature a variety of public radio programs, including "This American Life," a weekly documentary; Michael Feldman's quiz show "Whad'Ya Know?"; Garrison Keillor's "The Writer's Almanac," a daily feature of literary history and a brief poetry selection; the CBC's nightly news program "As It Happens"; religious program "Speaking of Faith"; arts program "Studio 360"; and WBUR's evening news program "On Point" and sports program "Only a Game." Hourly updates from the BBC World Service also will be featured.

An XM Public Radio programming lineup and show descriptions are available at: *www.xmradio.com/publicradio.*

Another recent change at XM is the addition of more traffic and weather channels to its service. XM planned to launch five more channels dedicated to local traffic and weather in major metropolitan areas on Aug. 2. The cities receiving the service are Atlanta, Miami-Ft. Lauderdale, Minneapolis-St. Paul, San Diego and Seattle. The additions take the number of markets served by XM's local traffic and weather services to 21.

Supplier Targets Datacasting

"The industry is starting to at least ask questions."

That's Ray Miklius talking. He's vice president of studio systems for Broadcast Electronics; I was on the phone with him recently to learn more about an offering that attempts to help stations manage a part of their business with which they may not be well acquainted: datacasting.

PAD. Real-time weather and traffic. Secondary audio. Get used to talking about this kind of thing.

Radio World will discuss these topics from various perspectives; today, BE's.

The concept of datacasting "dovetails well with the renewed interest in RBDS (and) dovetails nicely for those doing HD Radio or considering it. It's on the radar screen," Miklius said.

Radio has changed, Miklius believes; its leaders now recognize we are in a mature phase of our business cycle. Radio managers are looking for added revenue opportunities.

This is a familiar refrain. But Miklius said there is no real pressure on an industry to do something new when business is going well. When the concept cycle gets old, innovation becomes more attractive.

By his view, radio went through a major push to "do the efficiencies" in the first three or four years of consolidation. Now, broadcasters are looking for ways to differentiate themselves again.

'Limitless' opportunities

At BE, he said, "We've seen that RBDS is being adopted. We get a lot of calls about how to get data off the AudioVault for this, a module that transcodes that data stream to feed an HD Radio or RBDS encoder," he said.

"But you can do so much more." Thus the company recently introduced its Radio Data Dimensions product line, or RDDS.

BE's list of the possible benefits of datacasting is long: enhanced listener loyalty and station branding. Improved effectiveness of ads and more sponsorship slots. Cross-promotion of personalities and dayparts.

Think weather, gas prices, sports scores, coupon codes, Amber Alerts, phone numbers of clients. Think how you can fight back against satellite radio on the car display.

It's stuff that radio folks have been talking about for years but that is now more immediately viable thanks to the increased use of RDS as well as the coming HD Radio infrastructure via what Ibiquity is calling Advanced Application Services.

"Given that we're one of the licensees on the hardware side for HD Radio, if we can expand the software and hardware services we offer for HD Radio, we provide more of a complete package, including enabling tools — software to manage messaging, hardware to encode the HD Radio audio stream and so forth."

One use, for instance, is to update the maps in car traffic systems.

"Say there's an accident at I-35 and Sixth. The AAS data let you broadcast that to the navigational system to be overlaid on the map. It's third-party content — in effect, leased bandwidth — eventually to get to the car receiver."

In fact the manufacturer participated along with several others — Microspace, NAVTEQ, Panasonic and KSTJ(FM) — in a project this spring at the Ibiquity NAB booth, demonstrating "the first prototype transmission of real-time traffic data using HD Radio technology."

At that time Miklius said in a statement, "The navigational field is just one of the new data services opening up to broadcasters because of HD Radio. Data opportunities are limitless, but up until now the management of software and broadband links haven't been available for broadcasters to take advantage of these opportunities. We hope to fill in that gap with these new offerings."

Data traffic cop

BE's feeling is that, even if the widespread use of radio data isn't here yet, stations should build the infrastructure now so the building blocks are in place when receivers are available. It's a sensible business plan for an automation and transmission provider like BE; but I think it's also wise for radio managers to be thinking about these things.

Specifically, the BE RDDS is a software suite that allows RDS support for Program Service (PS), Program Type (PTY) and RadioText (RT), enabling info like song title/artist and traffic bulletins. The product uses a browser-based application and it lets a station display promotional material on a rotation or associated with audio.

It also will manage the datacasting capabilities of HD Radio. RDDS will support the AAS including expanded messaging, traffic maps and bulletins, alerting and the Secondary Program Service audio services like Tomorrow Radio.

So the system is essentially a data manager that accommodates the requirements of RDS for analog FM, AAS for HD Radio and Internet streaming clients. The company calls it a "virtual data traffic cop" to manage data coming from an automation system or other data stream generator.

"We've also integrated software APIs from Ibiquity to encode the secondary audio channel, manage message injection into the data stream — title artist, traffic bulletins — and provision the digital bandwidth available within the HD stream, for instance to alter the main/data channel arrangement at night."

One function is described as the "AudioVault for messaging." A message is associated with certain audio or audio ads, stored, then broadcast on a format clock or whenever that audio plays.

"So if a station is sponsoring a concert by Tom Petty, they can query their audio, and whenever a Petty cut comes on, they can do title and artist, but also 30 seconds into the song replace the message with ticket/contest info. It's PAD, near-PAD, and also non-PAD ... (like) weather and traffic bulletins during your programming."

A Web server lets the PD see her station's messaging via browser. The air staff can bring it up and type in a silent contest to listeners.

Eyeing Detroit

When I spoke to Miklius, the system was shipping for RBDS clients. BE was in the process of working with Ibiquity to provide the secondary audio channel and other bandwidth provisioning services, and was doing beta tests in Detroit and Las Vegas.

(You and I aren't the only ones BE is eyeing with this message. Miklius said car-

From the Editor

Paul J. McLane

makers are a key constituency. "We also built this tool to help show off that effort to Detroit — that we get our fair share of the real estate on the screen.")

What do broadcasters want to know about this approach? Not surprisingly, Miklius says he gets a lot of questions about how to make money on it. He said there's still a lot of "primary education" to do on the whole datacasting side of the digital radio question.

"If you can get $1 extra every time an audio spot plays — coupon code, Web site, whatever — that might add up to, say, $5,100 a month" for a typical station, Miklius said.

Implementation costs about $5,000 with the encoder. "So you could pay that off in a month in a simple system."

"Sockets" for external content providers are included. "So today you can do traffic bulletins within RDS; you can do messages with directions to the cheapest gas price; you can do ski reports. You can generate those in house, or you can subscribe to an external content provider. Part of the system is to get ready to third-party content that you brand as your own."

And, he said, the relatively low cost of implementation lets stations practice for what's to come, when receivers improve and your competitors are trying to monetize their own RDS and data offerings.

"It gives you time to get your organization ready and allows you to selectively implement new value to listeners and advertisers. All the trends are in your favor," Miklius said.

"And oh, by the way, the stuff XM receivers can do, you can do today."

GUEST COMMENTARY

Canada Explores Radio's Future

by David Bray

The author, senior vice president of Hennessy & Bray Communications, chairs various Canadian radio industry research, marketing and programming committees, and consults on license applications.

TORONTO Radio in Canada is about to make waves unlike any we have heard. In fact, I would go so far as to call them tidal waves of change. As the Canadian Radio-Television and Communications Commission convenes its overall review of radio in an attempt to map out the road for the future, digital radio in various incarnations is the central topic.

A series of new applications (pun intended) for the medium is being explored. At the same time that the industry is working to determine the role that digital radio will play, the concept of subscription radio has been added to the mix. On top of all of this, the way radio tuning will be surveyed is under examination by BBM Canada, the national audience measurement company.

For radio fans, this is a sonic feast.

If the CRTC buys into the concept of subscription radio, some interesting alternatives for digital radio may be in store. A CRTC hearing on subscription radio is scheduled to begin Nov. 1.

Heads were turned recently when three applications were submitted. These include the XM/Canadian Satellite Radio and Sirius/CBC/Standard satellite proposals, along with the CHUM Ltd. terrestrial/DAB offering.

David Bray

If the CRTC buys into the concept of subscription radio, some interesting alternatives for digital radio may be in store.

Radio observers here expected a two-way race focusing on the discussion of satellite. But CHUM took the opportunity to look at an alternative approach using the Eureka-147 technology for digital audio broadcasting in major markets.

The initial consideration of subscription radio was triggered by the application made by Canadian Satellite Radio, a partnership of Canadian entrepreneur John Bitove Jr. and XM Satellite Radio. Bitove has put together a formidable team comprising some of the country's most respected artists, programmers, analysts and entertainment industry VIPs.

Pending regulatory approval, CSR is promising 100+ channels of nationwide music and information that would serve both urban and rural areas from coast to coast. The unique channels to be produced in Canada include a variety of niche music programs hosted by Canadian musicians/personalities as well as an all-comedy station, which Mark Breslin, CEO of Yuk Yuk's International, calls "the best opportunity to expose Canadian comedy that I've seen in many years."

The XM service in the United States has already experienced substantial growth and boasts more than 2.5 million subscribers. An agreement to include XM receivers in GM vehicles has been positive for subscription sales. Experts here predict that the GM deal will give CSR an advantage over applicants that don't have a foothold in the important auto sector.

Canadian content opportunity

Canadian Satellite Radio is committed to building studios in Toronto and Montreal. Moreover, Stewart Lyons, a partner in CSR, proudly points to the Canadian content XM will be delivering not only to Canadians but also to listeners south of the border.

CSR Vice President of Programming Bob Mackowycz said that XM would give independent artists a voice in a way that mainstream radio can't. He refers to the extensive list of Canadian artists that could gain international exposure with XM while receiving little or no airplay on conventional stations at home.

CSR, along with the other two applicants, don't see themselves itself as in competition with conventional radio, but rather as a compliment to it, one that offers cutting-edge niche programming that mass-appeal stations can't afford to deliver.

Initial research seems to bear this out, although it is too early to tell. It is worth noting that the subscription applicants include four of the major broadcast groups in the country, who might be loathe to proceed if they felt they were going to cannibalize their own audience and revenue bases. There is a commitment from all concerned not to include local weather and traffic, a mainstay of conventional radio. If this is challenged, the issue could become contentious.

While we don't have as much information as yet, when it comes to the Sirius satellite application, with CBC and Standard as partners, expect another interesting presentation. The value of the CBC to Canadians is highly regarded by Heritage Canada, a government ministry protecting Canadian culture, and the CRTC.

The CBC sided with Sirius, in part due to its technical preference for the three constantly moving satellites that promise good coverage of certain rural areas. Experts seem to be divided on the benefits of the XM vs. the Sirius satellite systems, both of which boast advantages.

Subscription media?

It is also worth noting that the Sirius application mentions seeking the development of combined Sirius/DAB, and possibly analog AM/FM, receivers. If this becomes technically possible, it would provide an ideal solution for the CBC, which is heavily committed to DAB in urban areas.

The satellite transmission would allow the broadcaster to adequately cover outlying areas. While it may ultimately prove to be possible to house those chipsets in one unit, it may not be economically feasible to produce this sort of product for Canada alone.

The CHUM Limited subscription radio application involves a progressive rollout of urban centers that would initially deliver 50+ commercial-free satellite digital stations, and by the end of the first term of license, 100+ channels in a variety of formats with the much-touted digital benefits: reliable reception, crystal-clear sound and a data display for song credits, weather, traffic, etc. The CHUM application stresses that all of the stations would meet or exceed the Canadian content requirements normally mandated by the CRTC.

CHUM is rumored to be speaking with other broadcasters and potential partners that could provide experience and expertise in subscription media services and wireless communications.

Observers here presume the CHUM initiative would feature subsidized digital receivers that would offer both traditional free access for conventional DAB stations as well as the CHUM subscription channels for an approximately $10 monthly subscription fee. This could be critical to the long-term survival of DAB in Canada.

The primary difference with this initiative is that it would not be truly national, but rather consist of a series of terrestrially based stations in larger markets across the country sharing programming.

In the area of traditional stations, DAB, using the Eureka-147 technology, initially was contemplated as a replacement technology for analog. It would now seem that DAB's future appears to rely on a revision of CRTC regulations to allow for introduction of DAB-exclusive stations.

More than simulcasting needed

Experience has taught Canadian industry observers that being a high-tech replacement technology is good, but not enough to spur consumer interest. The U.K. demonstrated that the key to winning over consumers lies, not simply with technological benefits, but with expanded

See CANADA, page 6 ▶

Next Shoe Drops in Bonilla Case

Mexican Station Interference Stops; But U.S. Broadcasters Press for Revocations Here

by Leslie Stimson

WASHINGTON The FCC has fined Pacific Spanish Network Inc. President Jaime Bonilla Valdez $20,000. But that fine is only a slice of a larger controversy that involved interference complaints, high-level government talks and a petition to revoke Bonilla's U.S. licenses.

At the end of July, the commission found the broadcaster, who is based in Chula Vista, Calif., and reportedly owns three U.S. stations, apparently liable for providing program material via the Internet to a Mexican AM station in violation of an FCC authorization. He had until the end of August to pay or dispute the fine.

The Mexican station is one of three that Bonilla also appears to control and which had been interfering with U.S. broadcasters for several months since moving to new frequencies and power levels, according to the FCC. An agency source told Radio World the commission began receiving interference complaints last fall.

The Mexican government had notified the United States of the frequency applications but granted them without waiting for the FCC to act, according to the commission.

The stations now have been forced to change frequencies again after high-level negotiations with Mexico in which the U.S. State Department was involved.

Background

In 2003, Pacific Spanish Network had asked the FCC for permission to supply Spanish-language programming via the Internet to three AMs in Baja on the California-Mexican border: XEKTT in Tecate on 550 kHz, as well as XESS on 780 kHz and XESDD on 920 kHz, both in Ensenda.

U.S. stations feeding programming to a foreign country for the purpose of retransmission into the United States need FCC authorization.

The FCC's International Bureau approved the application.

However, the stations were operating on frequencies not coordinated nor approved under a treaty between the countries, and at such high power levels they were interfering with AMs in Los Angeles, Phoenix and San Francisco, according to the commission.

Three U.S. stations said their signals were affected by the interference and petitioned the agency in May to order Bonilla to show why his U.S. licenses should not be revoked. The complaining licensees are KGO(AM) Radio, the ABC-owned licensee of KSFO(AM), San Francisco; KABC(AM) Radio in Los Angeles, also owned by ABC; and Owens One Co., licensee of KUZZ(AM), Bakersfield, Calif.

Attorney Tom Davidson of Akin Gump Strauss Hauer and Feld told Radio World the petitioners believe that besides PSN, Bonilla owns two licenses and a construction permit in the United States. ABC and Owens have asked the FCC to revoke the licenses for KJDJ(AM) in San Louis Obispo, KURS(AM) in San Diego and the CP for KCHC(FM) in Willows, Calif.

The petition asking the FCC to revoke Bonilla's U.S. licenses remains pending.

The petitioners claimed Bonilla's Mexican stations were causing interference "to an estimated 50 million U.S. listeners ... More than 23 million of these listeners are located within the protected contours of the petitioners' stations."

The petitioners allege that in choosing the sites, frequencies and power levels for the Mexican operations, and given his past experience as a U.S. licensee, Bonilla knew the frequencies would need to be coordinated with the United States.

Bonilla told the FCC he did not know he was required to do so. He said he would comply with the agreement between the countries.

He also "does not recall being 'specifically advised'" by an FCC field agent that XEKTT was causing interference, he stated in a response to a commission inquiry.

Specifically, XEKTT, which was operating on both 560 kHz and 550 kHz at different times, had not been approved for either frequency. The FCC's Enforcement Bureau confirmed the station was operating on 560 at increased power levels from a new transmitter site in January.

Bonilla told the FCC he thought that even though XEKTT had changed frequencies, he thought he could still supply programming. He stopped doing so in February. But because he continued to do so after he found out XEKTT was not in compliance and was causing interference, the commission fined him.

Petition pending

A State Department spokesman told Radio World the intergovernmental talks resulted in the Mexican Ministry of Communications and Transportation requiring Bonilla to move his stations to their current frequencies. (According to the CGC Communicator newsletter, those are XEKTT to 1700 kHz at 10 kW full-time; XESS to 620 kHz at 5 kW full-time; and XESDD to 1030 kHz, 5 kW full-time.)

The talks also headed off potential interference from a fourth Bonilla station that was about to go on air, the spokesman said.

The State Department and several FCC commissioners were involved in the talks because Bonilla had violated a frequency coordination treaty that covers the AM and expanded AM bands, sources said.

The radio groups that asked for Bonilla's license revocation state his actions "demonstrate he is unfit to control *any* commission license or authorization." They also allege Bonilla misrepresented certain facts and demonstrated a "lack of candor" before the commission. The petition remains pending.

Canada

▶ Continued from page 5

unique programming.

More than 60 DAB versions of AM/FM stations are on-air. The stations can be found in Vancouver, Toronto, Windsor, Montreal and Ottawa. Stations in Victoria have won license approvals.

The first multilingual DAB-only license has been granted for Toronto and a number of other applications are pending. Radio Canada/CBC has introduced its first experimental DAB station with its news/weather/traffic offering in Montreal.

Look for some progressive thinking and a number of developments from them. With all of this activity, broadcasters are debating among themselves as to the future of DAB in Canada. The success or failure of the CHUM subscription application may be a turning point.

Last, a BBM committee of which I am chair has been convened to review survey timing and methodology in Canada. The number of weeks per year to be surveyed will be substantially expanded and the number of reports increased. A hard look also is being taken at increased sample sizes for problematic demos.

Listeners have been demanding change; and they are, in all likelihood, about to get it. More varied programming options, improved fidelity, display features and interactivity are just some the features in store.

From a receiver standpoint, I have seen and heard some of the bells and whistles on the new models being developed for Canada, and they are addictive. For example, a new pause-and-rewind feature with a 10-minute buffer allows you to scroll back and hear the traffic report you missed or listen to that last song over again. Things just keep getting better.

These days, the Canadian radio industry overall remains healthy, with a 94.8 percent national weekly reach and 21.8 hours tuned weekly per capita (18+, BBM Spring 2004). But standing still simply is not an option for a medium that prides itself as being the best option for those on the move.

It would appear that a combination of satellite digital subscription radio and DAB-exclusive stations will offer valuable niche programming options to enhance the listener experience without diminishing the vital day-to-day contribution of local broadcasters. Add to that exciting new digital receivers and a wealth of listener survey data.

I think I hear the future. Stay tuned.

Reach the author at davidbray@sympatico.ca.

RW welcomes other points of view.

Vendors

▶ Continued from page 1

broadcast equipment-buying model.

Dealers contacted for this article agree that one way buyers are getting low prices is buying in bulk. Dealers buy equipment in bulk from manufacturers; users can do the same from dealers. Schwieger said BSW offers savings to customers who buy equipment in packages of five or more different items.

Getting to know you

Vendors also agree that a customer can enjoy advantages by establishing an exclusive relationship with one dealer.

"We know who you are and know your needs," said Brian Krajcirovic, a salesperson at Mouser Electronics. In addition, he said, "You get one bill instead of 40."

Having an exclusive relationship with a dealer involves other benefits. For example, regular customers of Lighter Electronics might receive "discount pricing, loaner equipment and additional support," said Matthew W. Lightner, president of the company. "We go the extra mile if there's a problem with a product."

Lightner said his company provides after-hours support for established customers, who can page an engineer on call 24 hours a day.

Even if they regularly patronize a certain dealer, customers should always get at least three quotes when making new equipment purchases, another vendor said. That's not necessarily a contradiction.

"You should find someone you're comfortable with and, every once in a while, check them," suggested Buck Waters, salesman at Broadcasters General Store.

If you have an exclusive relationship with one vendor, "it comes down to trust" when asking for a quote.

"Especially if they're a frequent customer, you're going to give them a good price," Waters said.

Value

Price alone may not determine a buyer's choice of vendors. A client may put more value on a company if it offers certain product lines, toll-free phone access, 24-hour support and/or Web site access.

But what makes a vendor attractive, said BSW's Schwieger, is ability to get a customer a product quickly, accessibility of a sales force and access to products via a Web site at any time.

In certain circumstances — when an engineer is working late into the night trying to repair equipment, for example —customers must be able to place orders via the Web rather than having to wait for regular business hours, he said.

"If an engineer puts in an order at 3 a.m., we get the order at 6 a.m. while he is sleeping and can take immediate action," Schwieger said.

BSW's current system requires the sales staff to review each order. To increase the speed of processing, the company is planning to launch a system that would allow customers to order equipment directly and send an immediate request to manufacturers for the item, Schwieger said.

The company also recently announced it is relocating its shipping and receiving operations to Wilmington, Ohio, from its headquarters in Tacoma, Wash. The new warehouse will be located at DHL Logistics, a warehousing, inventory management and distribution center that will be connected to BSW by a dedicated data link.

Not all dealers use the Web for sales. "Within the broadcast industry, everyone sells the same thing at the same price, but what distinguishes us is our customer service," said Waters of Broadcasters General Store. "We give customers better one-on-one service."

Lightner said his company also does not offer Web ordering; he prefers phone interaction. Because Lightner Electronics sells products from vendors with minimal advertised prices — which he said protects dealers from competing with online shops that do not offer equipment support — he does not put pricing information on its Web site, he said.

"If we talk to customers, we can give them a lower quote," he said.

Lightner also offers a service he believes is distinctive: system integration. With more engineers stretched thin or taking jobs outside of radio, some dealers offer turnkey solutions, in which they sell and install equipment for stations with the help of the station's engineers.

Do your homework

To make the purchasing process easier for customers, most dealers urge them to research products before shopping around.

Among the most common mistake by customers is a lack of information about the specific product they want to buy, said Mouser's Krajcirovic. Mouser sells products from approximately 250 manufacturers, so a "part number, manufacturer or description of part" is helpful to be able to narrow the search for the appropriate item.

Lightner said it's vital that customers understand the application of the product. If the vendor knows the ultimate application, he or she can ensure customers pick the best equipment for the job.

Another common mistake by customers, according to Schwieger, is that customers are not specific about the date by which the product is needed.

"Everyone is in a hurry to get the prices; and then nothing happens for several months," he said. "It may take several weeks or months to make a decision, and then customers want the product immediately." During that time, products can be discounted and prices could go up or down.

With budget requests needed months in advance, many engineers price equipment this way, he said. Instead, he urges customers to get quotes for budgetary purposes only and submit ballpark figures to their stations while giving sales people an estimated time for possible delivery of the equipment.

"Customers have the perception that there's a big profit margin to what we do. That's not true," Schwieger said. "It's truly a buyer's market."

Surround

▶ Continued from page 1

SRS and Harris/Neural also each demonstrated surround sound at the Consumer Electronics Show in January.

With consumers spending money on surround products, the first challenge facing surround sound for HD Radio will be deciding on a standard of encoding before HD Radio becomes known solely as an expensive form of traditional stereo radio.

What are the differences in the three methods?

Early surround

Surround sound is a term that has been thrown around loosely since the appearance of the early multi-channel "Cinerama Sound" format of the 1950s. In current technology, surround sound typically refers to an audio system with a left, center and right speaker in front of the listener and one or more rear speakers behind the listener.

This setup often is accompanied by a separate subwoofer to handle the thumpy, low-frequency energy. You might start to see how this speaker configuration would lend itself to car audio, with speakers in the front, speakers in the rear and a subwoofer.

In an ideal world, the listener's surround audio source would be able to address each channel of sound discretely, putting separate audio information into each speaker. Until recently, most audio sources were stereo, providing only two channels of discrete sound information to the listener.

Assuming the listener was in a "perfect" listening environment, "perfectly" centered in front of two matched speakers, sound images could be placed anywhere around that listener by playing with phase relationships between the left and right audio channels. To make the audio appear in front of the listener, the recording engineer would place the audio with equal volume, in phase in both speakers.

To make the audio appear behind the listener, the audio engineer would place the audio 180 degrees out of phase in one speaker as compared to the other speaker. An impressive effect, but listeners rarely found themselves in a perfect listening position, so the multi-directional sound was rarely heard.

To overcome this, matrix audio decoders were developed. Matrix audio decoders watch for these phase and intensity differences between stereo inputs and decode them into multiple outputs.

The first challenge will be deciding on a standard of encoding before HD Radio becomes known solely as an expensive form of traditional stereo radio.

Probably the most recognized example of the matrix decoder was Dolby's surround sound decoder appearing in the early 1980s. Suddenly stereo TV and videotapes had a "center" and "rear" audio channel!

The major downfall of the matrix audio decoder was that audio appeared in unpredictable areas. For example, imagine a piece of audio with a racecar driving in circles around the listener. This probably travels quite nicely around the four speakers, until you add an announcer to the mix. When the announcer starts speaking loudly in the center channel, the listener would also hear the racecar quickly bleed to the center channel, because the dominant intensity and phase was the announcer's voice.

This problem compounded itself with more-complex sources such as music; the listener would hear various sounds out of all speakers, but it would not necessarily be an accurate representation of the original source. Another drawback, according to listeners of these decoders, was noise in the surround channels.

Often interference from poor reception, misaligned audio, etc. would appear as out-of-phase noise resulting in a loud presence in the surround channels. This problem has only become worse with the invention of compressed audio codecs.

If you're curious what these problems sound like, try playing an MP3 through a surround sound home theater system and listen to the rear channels. You'll quickly hear all the undesirable artifacts usually hidden by the maskers in the codec.

SRS

Recognizing the limitations of the original forms of matrix audio, SRS Labs claims to have improved upon the techniques of encoding and decoding matrixed audio. By adding high-pass and low-pass filters within its process, high- and low-frequency clusters can be steered independently to different speakers without steering the entire audio image.

To truly evaluate each company's surround method, an independent comparison would be needed using a variety of source material.

SRS offers tools for the production environment including an analog and digital version of its Circle Surround encoder as well as a software plug-in that can be used with Pro Tools, or any VST-compatible editing software. SRS also offers professional-grade decoders for monitoring the Circle Surround encoded content.

SRS has partnerships with radio manufacturers such as Motorola, Kenwood, Marantz and Eclipse. Given that brand awareness is perhaps a tougher battle than technical superiority, SRS believes it has a head start in becoming an established standard in HD Radio surround sound. SRS has recently been recognized by Ibiquity Digital as one of the first compatible surround sound methods.

Neural Audio/Harris

Neural Audio offers another surround sound encoding technique that goes a step further than matrixed audio relying on multi-dimensional mathematics.

While traditional matrices only rely on two variables — intensity and phase — to describe where audio should be placed around the listener, Neural has created a "watermark" within the audio to add a third variable of steering information. This watermark allows encoded audio to be placed with a similar degree of accuracy to most discrete audio systems.

Neural offers a production environment encoder/decoder that can provide both analog and digital encoding and monitoring. It also offers the NeuStar, an air-chain processor built with surround sound and HD Radio in mind.

In addition to the standard arsenal of compressors and limiters, Neural claims its processor can detect audio that will be challenging for the HD Radio codec and correct it, thus serving to "pre-rinse" the audio and greatly reduce quantization noise. (Remember the MP3 played through the rear surround sound channels experiment as mentioned above.)

Neural is working with OEM radio manufacturers and XM Satellite Radio to implant its technology into many new OEM stock radios to provide XM in 5.1 surround sound. Neural also provide solutions for many television networks to address 5.1 encoding challenges with HDTV.

XM featured Neural's 5.1 surround technology at CES2004 and said it has been using the surround technology in its audio since its launch.

Because both the SRS and Neural technologies use the existing HD Radio stereo signal to transmit their surround-encoded content, the audio is backward-compatible with stereo-only HD Radio receivers. Both SRS and Neural say their decoders up-mix original stereo content to a surround representation of the original content.

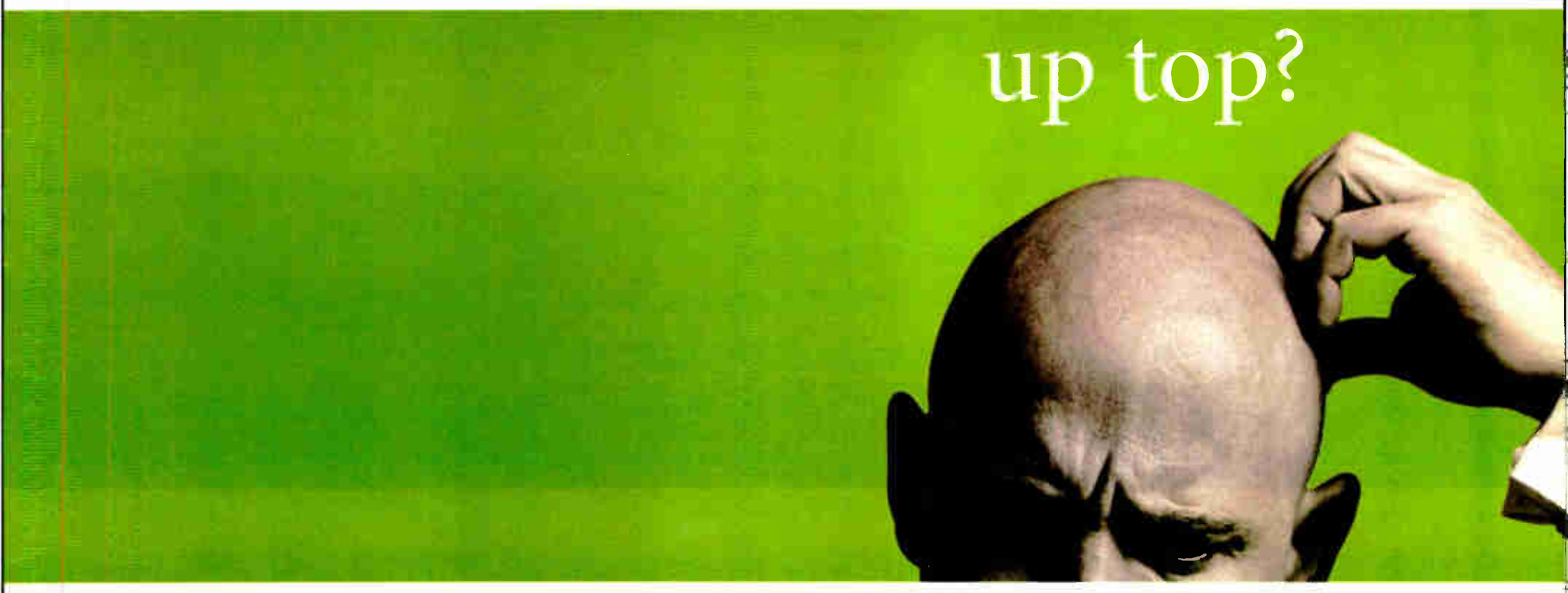
Fraunhofer/Telos

The Fraunhofer/Telos technology differs from the other methods of encoding/decoding surround sound in the way it encodes surround information. Still taking shape, the Fraunhofer/Telos system works with Ibiquity's HDC codec.

This method, which Fraunhofer/Telos is calling High-Efficiency Advanced Audio Coding (HE-AAC), divides the stream of 96 kbps by devoting 80 kbps of data to the existing stereo signal and 16 kbps to an ancillary data channel. This division of the data stream is similar to

See SURROUND, page 10 ▶

Wish you had more



Announcing Omnia-6EX.

There's a lot of buzz about the new HD Radio codec. We've heard it and agree with the many others who like it and say it's now time to get on with radio's transition to digital.

Because HD Radio can transmit audio frequencies up to 20kHz, listeners will finally be allowed to hear the full CD spectrum – if their radio stations choose the right on-air processor. On this point, you should know something important: Some "HD" processors simply hack off everything above 15kHz... robbing listeners of the full HD Radio experience and keeping our industry in a fidelity backwater.

The new Omnia-6EX won't short-change your listeners. We've built Omnias with sampling rates of 48kHz and higher from the start. All along, we've needed the sampling headroom to keep analog FM audio grunge-free. Now it's essential for HD Radio. Even if some listeners wouldn't notice the missing high frequencies, there's a fair chance they would hear a sharp 15kHz low-pass filter operating within HD Radio's codec range.

The new Omnia-6EX has enhanced processing for analog FM, and is ready for HD Radio with a second limiter section and digital output. Both FM and HD limiters and outputs are included as standard.

Omnia-6EX is also full of processing enhancements that result in yet more bass punch, yet more voice clarity, than the original Omnia-6. A sound so powerful and free of artificial constraints, you'll crave it for your station the first time you hear it.

More than 50% of the US' Top 100 FM stations have already upgraded to Omnia. Maybe you're next?

Omnia
A Telos Company

omniaaudio.com

◆ NEWSWATCH ◆

NAB 'Encouraged' About IBOC

WASHINGTON In reply comments to the FCC in the IBOC proceeding, NAB says it is "encouraged" that most of the commenters support the commission's eventual completion of digital authorization rules. This would provide certainty for broadcasters and equipment manufacturers to continue to roll out digital operations and receivers, as well as support continued development of digital services for listeners, believes the trade group.

However, the trade association isn't saying IBOC is perfect.

"NAB remains mindful of the challenges of and potential tradeoffs involved in converting the nation's radio stations to hybrid digital operations, especially in the case of AM nighttime operation, which, because of the mercurial nature of nighttime propagation, will require careful monitoring and, in many cases, individual resolutions. But we remain steadfast in our belief that digital radio will be transformative of both the AM and FM services, in terms of greatly improved audio quality, robustness of reception and opportunities for new, innovative services."

NAB predicts that with digital AM, stations "will see a resurgence of formats, audiences and new services. These benefits will justify efforts to deal with instances of interference and some tradeoffs of secondary service."

The association supports allowing stations flexibility to scale their digital signals to offer a high-quality main stream and also upgrade or create innovative supplemental services.

Entercom, Cox Quicken IBOC Conversions

Two more top groups have committed to converting the bulk of their stations to IBOC.

Entercom Communications, fourth-largest U.S. radio broadcaster in revenue, plans to accelerate its rollout by converting 80 percent of its stations over four years. Cox Radio, the third largest, followed with an identical announcement.

Entercom has six stations broadcasting in HD Radio, an FM in Boston and five in Seattle. Cox stations include WSB(AM) and WSB(FM) in Atlanta and WEDR(FM) in Miami.

Entercom owns or runs 104 stations, Cox 78. Both are investors in Ibiquity Digital. Clear Channel, the largest radio group, recently committed to converting most of its stations.

In August, Entercom had equipment on order for converting eight further stations, five in Portland and three in Denver, this year, according to John Donlevie, executive vice president and general counsel. Its conversion costs are running from about $100,000 to $150,000 per station.

Entercom hasn't named the markets it will convert but likely will focus on FMs while it waits to see what the FCC will do about nighttime digital AM, Donlevie said.

AP on the Floor at DNC

AP Radio reporter Lisa Goddard interviews a delegate from Louisiana at the Democratic National Convention in Boston in July. Goddard used a Sony MZ-R37 MiniDisc Recorder to record interviews as well as an E-V 635 mic with Lectrosonics 500 MHz wireless transmitters and receivers for reports.

Photo courtesy Associated Press

Live reports and recorded interviews were transmitted from the floor to the Associated Press broadcast booth overlooking the convention floor in the Fleet Center, where they were used in AP Radio programming. Convention material also was recorded at the Broadcast News Center in Washington and edited for use on AP's closed circuit feeds.

Each night, AP reporters would dub interviews from their MiniDisc machines to Dell PCs, edit that audio and feed packages of sound bites to the BNC. Their PCs were located in the AP Radio booth and in a large, AP workspace in the Press Pavilion next to the Fleet Center. AP personnel fed the digital files and the live programming to the BNC via Telos Zephyr Codecs over the AP's private digital network.

Surround

▶ Continued from page 8

the method used in the Tomorrow Radio Project to create two independent audio streams.

The ancillary data channel carries the surround steering information, which Fraunhofer and Telos say can later be decoded by enhanced receivers that are programmed to recognize the extra data. If a stereo-only piece of audio is transmitted without ancillary data, the enhanced receiver will pass the stereo information without any surround upmix.

Still in its infancy, the Telos/Fraunhofer method does not have production models of its encoders or decoders in the marketplace. Telos says it has products in development, including a 5.1 version of the Omnia processor, that will be available soon.

Because this method would require a broadcast facility to store, route, mix and broadcast discrete 5.1 audio or carry the ancillary data that is time-aligned beside its stereo audio paths, it would likely require a major overhaul of a facility looking to adopt this method. Stations looking to adopt this method also would need to consider that most source material is stereo at present; listeners would only hear sound out of two of their five speakers unless their library was upmixed prior to broadcast.

Seeing the value of creating a standard in the marketplace and developing products to support that standard, Fraunhofer/Telos has submitted the HE-AAC format for review by the standards committee for the Motion Picture Experts Group.

While this method might require greater changes to a broadcast facility to implement, Fraunhofer/Telos might have the right idea by establishing an open standard allowing many companies to develop products to support this standard. The SRS and Neural methods are both patented processes, with encoders and decoders available exclusively through them or their licensing channels.

Comparisons ahead

To truly evaluate each company's surround method, an independent comparison would be needed using a variety of source material. The methods should be tested by broadcasting and receiving the audio through the HD Radio system.

Ultimately, for HD Radio surround sound to evolve, a balance must be struck among technical quality, established standards, ease of implementation, equipment availability and cost. These are many big hurdles, but the result will be rewarding for the consumer and the broadcaster.

For the first time in 30 years, we have the opportunity to wow listeners just as stereo did in the FM band; surround sound *will* wow listeners of the new HD Radio service.

Casey is assistant chief engineer and director of IT for Infinity Seattle.

Commander G3

Modular Stereo POTS • ISDN • GSM Codec

Introducing the new Tieline Commander G3

At Tieline, we've taken a fresh approach to audio codec design. Now you can customize your audio codec to suit your exact needs for remote broadcasts and STLs. You only pay for what you need and we're the first to be compatible with most major ISDN and POTS codecs in your rack.

Think of the new Commander G3 as a codec foundation with two expansion slots which accept your choice of POTS, ISDN and GSM modules. You simply buy what you need.

For example, if you need a mono 15kHz POTS codec, simply buy the Commander G3 with a POTS module for one low price. Need 15kHz Stereo or dual mono over POTS? Just add another POTS module.

If you're looking for a mono/stereo ISDN codec without POTS, you can buy a Commander G3 with an ISDN module only. It comes with G.711, G.722, and Mpeg Layer 2. Tieline's "Music" algorithm also delivers an astounding 15kHz stereo over a single ISDN B channel! You can always add a POTS or wireless GSM module later if you need.

Need a stereo ISDN STL with automatic failover to 15kHz mono POTS? Buy the Commander G3 with POTS and ISDN modules plus Tieline's new Freedom Failover software kit.

Plug in the GSM module and deliver up to 7.5 kHz over GSM networks and up to 15 kHz over HSCSD wireless networks.

Control your remote talent's mic input gain from the studio and send simultaneous audio, serial data and relay activation in either direction

We've even created digital matrix router software which enables you to cue audio off air, create a local audio intercom, and talkback to the studio all without interrupting your broadcast.

The new Tieline Commander G3 is simply the world's most powerful, flexible and customizable codec. It's even compatible with your Comrex** Vector, Matrix, Blue and Musicam Liberty POTS codecs.

Every Tieline codec comes with a two year warranty plus the support of an experienced engineering team with more than 25 years in the broadcast industry right here in Indianapolis. That's why hundreds of stations, major radio groups and networks across America use Tieline to deliver audio every single day.

Hurry, free demonstration Commander G3's are limited. Call you favorite broadcast dealer or call us at 800-750-7950 to book your free demo.

Tieline® TECHNOLOGY

** Comrex and Musicam are registered trademarks of each respective corporation

800-750-7950

www.tieline.com/rw

Slicker Charts and Cooler Racks

by John Bisset

Kinko's and other copy centers can do marvelous things. Copying your large transmitter schematics is one.

Laminate the enlarged, copied schematic and post it on the wall, and you've got a simpler means of troubleshooting in which you're not hunched over a desk. In addition, your schematic won't get ripped or ruined.

Add a grease pencil and the troubleshooting is even easier. Use the grease pencil to mark components that have been checked or to isolate parts in a failed section. The pencil also helps when you're on the phone with a manufacturer's field service rep.

★ ★ ★

Several engineers have asked why broadcasters couldn't use the smaller TV satellite receive dishes instead of the larger 3 meter dishes to receive syndicated broadcast audio programs.

You may wonder, too. After all, the syndicated audio bandwidth is a lot less than that of a television signal; and if the little dishes could pick up all the satellite offerings from Dish Network or DirecTV, they should work with the limited audio bandwidth signals.

A plausible argument. For the answer, we spoke with Bud Aiello, director of engineering technology at NPR. Bud's reply was simple. The satellites supplying the DSS (DirecTV) services were *designed* to operate with small receive dishes. To achieve this, they use very high power levels. These DSS birds emit a much higher-powered signal than do the satellites providing other services, like audio for broadcasters.

It goes without saying that DirecTV could not gain acceptance if customers had to use antennas of 3+ meters.

A smaller receive dish could be used if one moved the audio services to the Ku band, but then reception would be affected by rain and other weather-induced fades.

The large C-band receive antennas used by many audio program providers ensure the reliable and weather-stable service necessary for broadcast applications.

Thanks, Bud, for the explanation. Aiello can be reached at *baiello@npr.org*.

★ ★ ★

It goes without saying that some type of punch block will always be used in broadcast facilities.

At Bill Bracken's WBCN(FM) in Boston, color-coded bridge clips are used to separate control and status blocks. The colors make identifying a block easy, especially if you need to locate the block quickly.

Bill Bracken can be reached at *bracken@wbcn.com*.

★ ★ ★

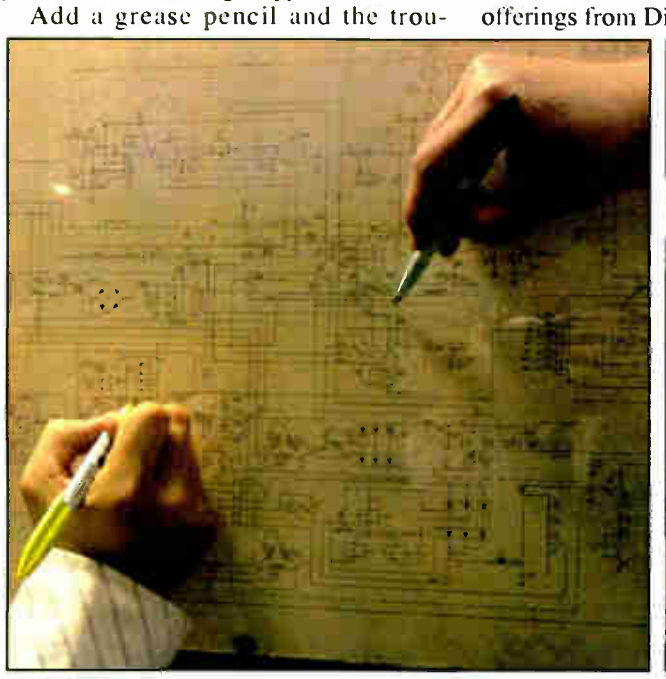


Fig. 1: Grease pencils can be used on a plastic-covered schematic

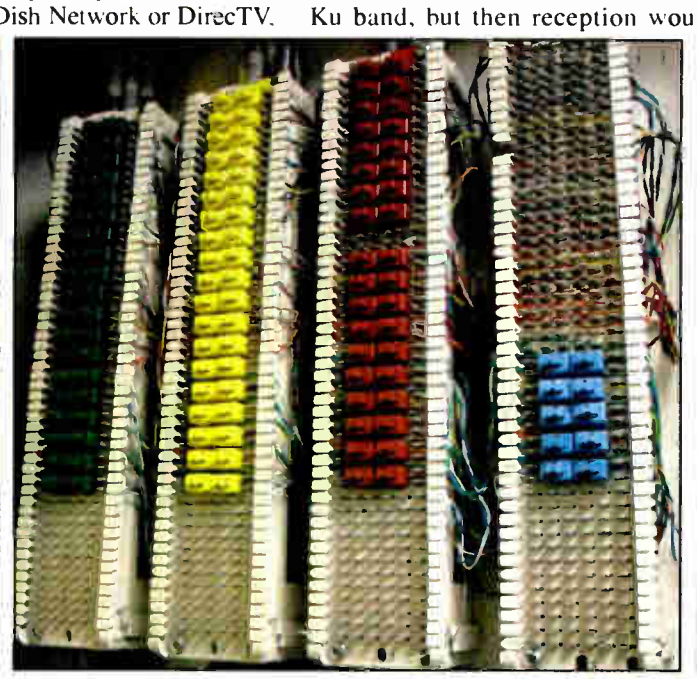


Fig. 2: Code terminal blocks with colored bridge clips to make block ID easier.

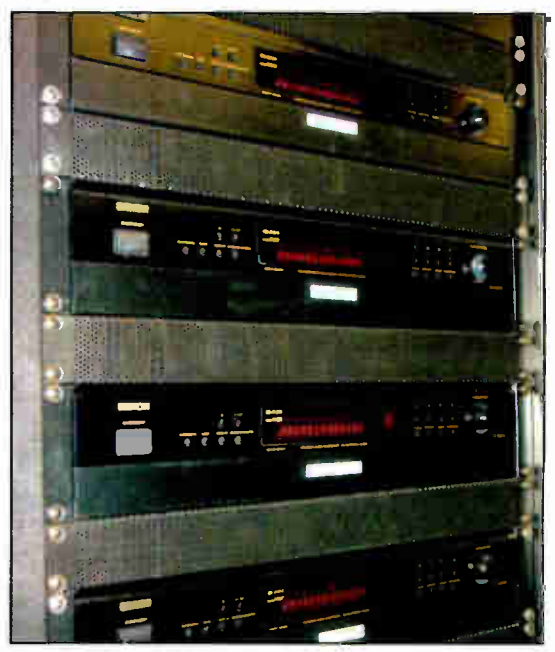


Fig. 3: Use perforated panels for rack ventilation.

Bob Gonsett's e-mailed CGC Communicator is always chock-full of useful technical nuggets. Here's one of interest. The FCC is soliciting comments on a proposal to adopt 811 as a nationwide call-before-digging number. This will give excavators one number to call

See WORKBENCH, page 14 ▶

The routing switcher gets a new twist.

(About five twists per inch, actually.)

Everybody needs to share audio. Sometimes just a few signals — sometimes a few hundred. Across the hall, between floors, now and then across campus. Routing switchers are a convenient way to manage and share your audio, but will your GM really let you buy a router that costs more than his dream car? Unlikely.

If you need a routing switcher but aren't made of money, consider Axia, the Ethernet-based audio network. Yes, Ethernet. Axia is a *true network*. Place our audio adapter nodes next to your sources and destinations, then connect using standard Ethernet switches and Cat-6. Imagine the simplicity and power of Ethernet connecting any studio device to any other, any room to any other, any building to any other... you get the idea.

Routers are OK... but a network is so much more modern. With Axia, your ins and outs are next to the audio, where they belong. No frame, no cards, no sweat.

Scalable, flexible, reliable... pick any three.

An expensive proprietary router isn't practical for smaller facilities. In fact, it doesn't scale all that well for larger ones. Here's where an expandable network really shines. Connect eight Axia 8x8 Audio Nodes using Cat-6 cable and an Ethernet switch, and you've got a 64x64 routing switcher. And you can easily add more I/O whenever and wherever you need it. Build a 128x128 system... or 1024x1024... use a Gigabit fiber backbone and the sky's the limit.

Are you still using PC sound cards?

Even the best sound cards are compromised by PC noise, inconvenient output connectors, poor headroom, and other gremlins. Instead, load the Axia IP-Audio Driver for Windows® on your workstations and connect *directly* to the Axia audio network using their Ethernet ports. Not only will your PC productions sound fantastic, you'll eliminate sound cards and the hardware they usually feed (like router or console input modules). Just think of all the cash you'll save.

Livewire

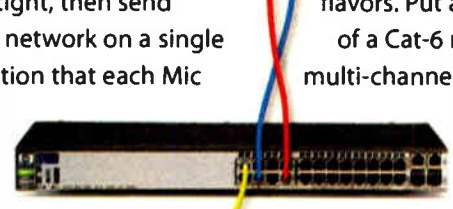
« · · · » 100/1000

There's a better way to get audio out of your PC. No more consumer grade '/4" connectors – with Axia your digital audio stays clean and pristine.

Put an Axia Microphone Node next to your mics and send preamplified audio anywhere you need it, over Ethernet — with no line loss or signal degradation.

Put your preamps where your mics are.

Most mainframe routers have no mic inputs, so you need to buy preamps. With Axia you get ultra-low-noise preamps with Phantom power. Put a node in each studio, right next to the mics, to keep mic cables nice and tight, then send multiple mic channels to the network on a single Cat-6 cable. And did we mention that each Mic Node has eight stereo line outputs for headphones? Nice bonus.



Put your snake on a diet.

Nobody loves cable snakes. Besides soldering a jillion connectors, just try finding the pair you want when there's a change to make. Axia Audio Nodes come in AES/EBU and balanced stereo analog flavors. Put a batch of Nodes on each end of a Cat-6 run, and BAM! a bi-directional multi-channel snake. Use media converters and a fiber link for extra-long runs between studios — or between buildings.

An Axia digital audio snake can carry hundreds of channels of digital audio on one skinny CAT-6 cable. We know you're not going to miss soldering all that multi-pair...

ENCO SYSTEMS INC

Scott Studios

radio

BALLY

Axia is already working with some great companies. Like Enco Systems, Scott Studios, Radio Systems, Bolsys Technology Group, and of course Telos and Omnia. Check AxiaAudio.com/partners/ to find out who's next.

With a little help from our friends.

A networked audio system doesn't just replace a traditional router — it *improves* upon it. Already, companies in our industry are realizing the advantages of tightly integrated systems, and are making new products that reap those benefits. Working with our partners, Axia Audio is bringing new thinking and ideas to audio distribution, machine control, Program Associated Data (PAD), and even wiring convenience.

Would you like some control with that?

There are plenty of ways to control your Axia network. For instance, you'll find built-in webservers on all Axia equipment for easy configuration via browser. PathfinderPC® software for Windows gives you central control of every audio path in your plant. Router Selector nodes allow quick local source selection, and intelligent studio control surfaces let talent easily access and mix any source in your networked facility.

Control freaks of the world, rejoice: intelligent Axia mixing surfaces give talent complete control of their working environment. Reconfigure studios instantly and assign often-used sources just where they're most useful.

"This sounds expensive." Just the opposite, really. Axia saves money by eliminating distribution amps, line selectors, sound cards, patch bays, multi-pair cables, and tons of discrete wiring — not to mention the installation and maintenance time you'll recover. And those are just side benefits: our hardware is about half the cost of those big mainframe routers. That's right... *half*. Once you experience the benefits of networked audio, you will never want to go back. AxiaAudio.com for details.

AXIA
A TELOS COMPANY

WKNR's Transmitter of the Art Deco Era

by Jim Hawkins

This is one in a series of photographs of radio broadcast facilities and history from the collection of Jim Hawkins.

The biggest thrill I experienced when I started to visit broadcast transmitter facilities during the 1960s was the physical beauty of the equipment and the ambience of power.

The older tube transmitters offered a surround sound of powerful blowers, large coils and tubes singing to the modulation, and the occasional excitement of bells ringing when the transmitter shut itself down, due to anything from a rat crawling onto the antenna to the powerful strike of lightning.

The accompanying photo is of the RCA BTA-50F at what used to be WKNR in Cleveland. The designer of RCA's art deco beauties was Raymond Lowey, also known for his designs of train locomotives, furniture, buildings, etc.

Front paneling of the RCA BTA-50F 50 kW Transmitter

Going somewhere

The front, with its glass and chrome, might remind you of a train's passenger car, which gives the perception of "going somewhere." Peering into the glass, you are treated with the sight of orange glowing 5671 tubes with hundreds of air-cooling fins around the anode.

The filament for each of those tubes alone requires about 3,000 watts of power to light (285V, 11A). The 5671s were extremely rugged and overrated but became popular for 50 kW transmitter use after World War II. They were manufactured in large quantities for induction heating for the manufacture of steel and iron war related parts. This made large quantities available for transmitters after the war.

Upon entering the area behind the transmitter through a door, the rear of the transmitter is plain, but each cubicle can be opened for maintenance. The driver for the pair of 5671 RF final tubes is an air-cooled 892R, also commonly used for the output stages of the lower-power 5 kW station transmitters of that vintage.

Scouting behind the transmitter, you will see the huge transformers for the anode supply and the modulator. The modulation transformer is about 5-6 feet high and buzzes away with the sound of the modulation. The six mercury vapor rectifiers for three-phase full wave rectification were replaced with solid state rectifier stacks long ago.

Our host was John Hovanec, chief engineer, when we took the tour on the Memorial Day weekend of 2001. The BTA-50F is still fully operational, but was auxiliary to a Harris MW-50. The station call letters are now WHK. John was kind enough to fire up the transmitter into a dummy load so we could experience the sights and sounds of the live transmitter.

It is worth mentioning Henry Dryfuss, an industrial designer whose talent was used for Western Electric transmitters, particularly the "Transview" design in the late 1940s.

You can see the full tour of this site at *www.jphawkins.com/wknr.html.*

MARKET PLACE

BE Plans 50 kW AM Transmitter

Broadcast Electronics will introduce a 50 kW AM transmitter at this fall's NAB Radio Show. BE's current top power level in AM is 10 kW.

The company says the unit, yet to be named and scheduled to ship in the first half of 2005, is about half the size of comparable models; the company markets it as an "ultra-efficient" 50 kW unit with a small footprint — less than 12 square feet. The transmitter uses a patent-pending modulation design developed by BE.

The company said pricing would be competitive but it has not released details.

Features include control and diagnostic capability locally via a 15-inch, XGA front-panel display, as well as remotely via Internet Protocol. PA modules are accessed from the front; lift-off rear panels provide access to power supplies and AC connections.

BE said the unit has nighttime power capability as low as 250 watts, which means a user can avoid having a separate transmitter for nighttime operation.

Director of RF Engineering Richard Hinkle and VP of RF Systems Tim Bealor made the announcement.

For information contact the company in Illinois at (217) 224-9600 or visit www.bdcast.com.

Workbench

▶ Continued from page 12

nationwide to avoid cutting buried cables or other important infrastructure.

This has never been more important than to AM stations. Let the power company "Ditch Witch" across your field, severing the station's power, radials and transmission lines, and your fun has just begun.

Bob reports that there are 70 nationwide "One Call" centers that serve different geographic areas. The centers generally are accessed through toll-free or local telephone numbers. Adopting one simple number to call — 811 — should promote safety and lead to fewer utility outages.

You can find more information at *http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-247171A1.doc.*

★ ★ ★

Nick Olguin is a retiree from both the Voice of America and Radio Free Europe/Radio Liberty. Nick passed along an e-mail exchange regarding bird and antenna-related issues. Larry Magne is the author of the article that sparked the exchange.

Apparently there once was a problem at the Biblis HF transmitter site in which beautiful hawks and crows had their feet burnt off after landing on transmission lines and antennas. The Biblis engineers put spinners on the lines, but those didn't work to keep the birds away.

The engineers consulted with the Biblis VogelSchutzVerein, a bird society. They suggested the purchase of shiny glass spheres about 10 inches in diameter. As a group, the bird watchers' club came out to the station and installed the spheres on wooden posts about five feet in height throughout the antenna field (maybe a total of 20). The spheres stopped the problem.

The VogelSchutzVerein was so happy with the success — not another case of a hurt bird over the next two years Larry was there — they came out to the station and constructed a lovely pond next to the building for birds to water.

Here at home, last year the FCC and the EPA agreed to explore whether broadcast towers really pose a risk to migratory birds. Now the commission has hired an environmental group to help work on that issue. It retained Avatar Environmental Services of West Chester, Pa., as a biological consultant. Avatar will review the studies mentioned in comments to last year's Notice of Inquiry on the impact that communications towers may have on birds.

Avatar will also help review license applications in cases where towers may have an impact on the environment. With Avatar's input, the FCC is hoping to assess the impact of towers on migratory birds and to process applications that implicate biological issues more efficiently.

★ ★ ★

Racking up equipment? Keep in mind the heat generated by each device.

Clear Channel's Ray Fantini chose the Middle Atlantic perforated rack panels shown in Fig. 3 on page 12. Inexpensive, these panels are a great choice for both ventilation and esthetics. Dress up the "holes" in your rack and watch the positive reaction of your staff.

The panels also prevent the rack-mounted equipment from being used as shelves; papers and magazines effectively block equipment ventilation holes.

John Bisset has worked as a chief engineer and contract engineer for more than 30 years. He is the northeast regional sales manager for Dielectric Communications. Reach him at (571) 217-9386, or john.bisset@dielectric.spx.com.

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

Radio Subtracts the Ads

Converging Forces Are Causing the Radio Industry to Rethink Its Revenue Model

by Skip Pizzi

Since Clear Channel's announcement that it would retool its approach to radio advertising, there has been much talk and speculation on just what effect these changes would have on the actual sound of U.S. radio, and how audiences might react. The end result remains unknown, but it appears that Clear Channel intends to reduce the overall number of ads, redistribute them into more frequent but shorter sets, and adjust prices so the change is essentially revenue neutral.

This is a monumental departure from past practice, and therefore warrants thorough examination. Of particular interest is the process that led to the decision, as well as consideration of its possible effects.

Icebreaker

Like the weather, the problem of ad clutter is something that everyone talks about, but no one has done anything to change. Since the deregulation of the industry in the 1990s, radio broadcasters seem to have concluded that audiences possessed nearly infinite elasticity in their tolerance of advertising, with some major-market stations even exceeding 30 minutes per hour of commercials during drive time as a result.

The lack of effective competition allowed this practice to flourish, and the ratchet effect — which allows one station to push the envelope, and the others to follow suit shortly thereafter after observing no ill effects — only served to broaden the problem.

As this practice became institutionalized, broadcasters were locked in to such behavior by golden handcuffs, and no station was likely to retreat from the practice in isolation. (A ratchet only goes in one direction.) By virtue of sheer mass, however, Clear Channel was able to step forward unilaterally, and hope that the industry would follow.

It's well known that one of the benefits of consolidated enterprise is the ability to enable coordinated systemic change more rapidly than a diversified industry can accomplish. So Clear Channel can make this move with some confidence that it will be not left out on a limb for long.

The spin on this move is that it's an attempt to create a more listenable product, which it no doubt will do. Another stated goal is to provide greater satisfaction to advertisers, which is also likely to be achieved. (How would you like to be Spot #15 in a 17-spot block?)

Yet some of real motivations behind the change — and its timing — may have little to do with these objectives.

Handwriting on the wall

First, consider the obvious: No rocket science is required to spot the salient trends in recent listener behavior: Satellite radio listenership, while still relatively small in absolute terms, is growing fast. (Satellite radio's appeal also may have been increased recently by its apparent immunity to the indecency purge.) Meanwhile, among terrestrial broadcasting, the only sector showing significant audience growth is public radio.

To the commercial radio analyst, the primary common factor between these two growing services — and the most salient differentiator between them and commercial radio — is their minimal advertising content. This bolsters the belief that has now been put forward by Clear Channel, citing excessive advertising for the current audience erosion. However, the converse may *not* be true: Reducing advertising on commercial radio may not inherently stem this trend. The assumption that commercials are the *only* element driving away audiences belies the possibility that there are other reasons for this migration. Excessive advertising may only be masking the real problem, or just making it worse.

Perhaps in acknowledgement of this possibility, there are a very few commercial radio stations experimenting with new programming formats that feature broader music selections, along with plenty of back-announcing and other discussion of the music played, in addition to reduced commercial loads. Audience reaction to these formats will be carefully gauged, and if successful, could result in a more widespread trending to this more comprehensive, retro approach.

Another clear and direct response to satellite radio competition is Clear Channel's and other broadcasters' move to add automated title and artist info to the PS and RT fields of their stations' RBDS signals, as discussed here in our Jan. 14 column.

Deeper reasons

All of the above reactions make sense, but there may be other, more fundamental business reasons behind the proposed changes.

First, consider that the recent depression in Clear Channel's stock valuation is something that always garners management's rapt attention. (Prior to the announcement, CC's stock had lost 27 percent of its value at the start of 2004.) Often the incentive to increase or recover shareholder value (or a direct request from the corporate board of directors to do so) motivates management to take unusually strong and decisive action.

Reducing ad clutter may be a convenient smokescreen, allowing rate adjustment that otherwise would not be competitively feasible.

Next, the timing of this move could be an acknowledgement that doing so now while satellite radio still has a relatively small share of the entire U.S. radio market is greatly preferred over doing it later. This is because the raising of advertising rates now is less likely to drive advertisers to the competition for better value, simply because these emerging competitors cannot yet deliver an equivalent advertising service. Once satellite radio's penetration more closely rivals terrestrial radio's, precipitous ad-rate hikes by either camp will not be possible with such impunity.

Further, commercial radio broadcasters may be anticipating the market fragmentation (and thereby reduced audience numbers per service) that HD Radio multicasting may bring about. Raising rates before this happens will make any subsequent adjustments that may need to be made a bit easier to take in the long run.

Finally, Clear Channel may be anticipating the arrival of the Personal People Meter and its possible negative effects on spot valuations in the radio advertising business, and thereby electing to take a proactive strike at raising rates while they still can. Again, this will put them in a better starting position if rates need to be adjusted downward in the future, once PPM metrics are considered adequately credible and are fully digested.

Thus the argument that reducing ad clutter is now necessary may be, at least in part, a convenient smokescreen allowing flexibility and rate adjustments that otherwise would not be competitively feasible. Attributing the change in this manner also makes it hard for other radio broadcasters to not follow suit. The window of availability for making this argument without suspicion of ulterior motives is also likely to soon close, so it behooves broadcasters to do so quickly.

True impact

Of course, just how much difference these proposed changes will have in the product is uncertain. Whether this movement will overtly change the sound of U.S. commercial radio cannot be known until implementation happens. Often the lofty goals of an initial position statement fail to be fully realized as they work their way down to actual execution — a concept we are reminded of frequently in any election year.

Whether the process effectively stems the tide of audience migration from commercial radio services also remains to be seen. Most important, of course, will be the effect of these changes on terrestrial broadcasters' bottom lines. Will it maintain the viability of these services in the face of emerging competition?

All of these questions will keep things interesting in this space for the next several years. Meanwhile, the value of competition in forging a better deal for consumers is being illustrated yet again.

Skip Pizzi is contributing editor of Radio World.

The Big Picture

Photo: Gary Hayes, BBC

by Skip Pizzi

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Wednesday / October 7

Programming Executive Super Session

Moderator:

Erica Farber
Radio & Records

Programming Executives:

John Dickey
Cumulus Media

David Gleason
Univision Radio

Tom Owens
Clear Channel Communications

Pat Paxton
Entercom Communications

Mary Catherine Sneed
Radio One

Thursday / October 7

FCC Breakfast

Event sponsored by: EDWARDS

Jonathan Adelstein
FCC Commissioner

Kevin Martin
FCC Commissioner

Thursday / October 7

Group Executive Session

Group Executives Include:

Judy Ellis
Citadel Communications Corporation

David Field
Entercom Communications, Inc.

Chesley Maddox-Dorsey
Access.1 Communications

Mark Mays
Clear Channel Worldwide

Peter Smyth
Greater Media Inc.

Co-Moderators:

Jay Mitchell
Small Market Radio Newsletter

Tom Taylor
Inside Radio

Event sponsored by: INTEREP

Thursday / October 7

NAB Marconi Radio Awards Reception, Dinner & Show

Hosted by:

Bob & Tom

The Bob & Tom Show
Premiere Radio Networks

Friday / October 8

Breakfast with Charlie Cook

Political Analyst

Event sponsored by: RBC Capital Markets

Friday / October 8

Radio Luncheon

NAB National Radio Award Recipient

Clarke Brown

Jefferson-Pilot Communications

Event sponsored by: The ADVANTAGE of ASCAP

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Manchester Grand Hyatt, San Diego, CA

visit www.nab.org/conventions/radioshow

Renting a Slice of Your Bandwidth

Innovators Are Looking to Digital, But Use of SCAs Continues to Be Part of Radio's Landscape

by Tom Vernon

FM subcarriers or SCAs have been a cash cow for many broadcasters over the years. In many instances the revenue from monthly rental of the subcarrier could pay the rent for a transmitter site, or offset other engineering costs.

The subcarrier landscape has changed considerably in the past 15 years, and today there seem to be more stations trying to rent subcarriers than there are potential subscribers. What types of services are left for broadcasters seeking to rent out a slice of their bandwidth? How much money can your station make? How will the situation change with the advent of data channels on HD Radio?

For many years, Muzak was almost synonymous with FM SCAs, using a nationwide network of subcarriers to distribute its well-known elevator music. Specialized news and information services such as the Physician's Radio Network (PRN) and Quotron also were widely distributed. Differential GPS services used FM subcarriers. Other music, paging and radio reading services blossomed, particularly around medium and large markets.

Today there seem to be more stations trying to rent subcarriers than there are potential subscribers.

The situation began to change as satellite distribution systems became affordable. Muzak and PRN were among the first to switch to the birds; others soon followed. More recently, the Internet has provided a cost-effective vehicle to deliver data and content globally. However, a few services are still consumers of FM SCAs.

Foreign language providers are an option for broadcasters in markets with a sizable ethnic population. Tom McGinley, director of engineering for Infinity Seattle and Radio World technical adviser, called this a good fit.

"Ethnic programming via subcarrier has a strong appeal for non-English speaking individuals over 40 who are not computer-savvy."

While ethnic subcarriers can be a lucrative proposition, McGinley said that there are a few precautions that broadcasters need to take before signing a contract.

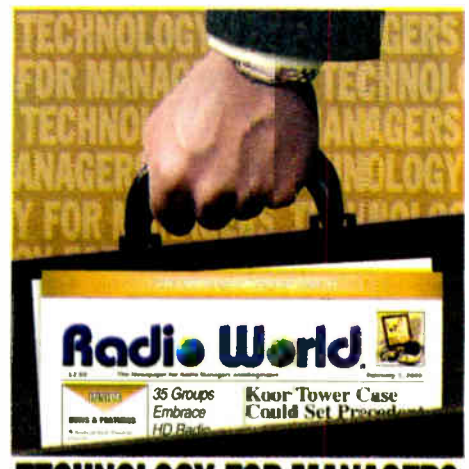
"Management needs to understand that the station is legally responsible for program content on its subcarriers, even if they cannot understand the language."

McGinley said broadcasters can protect themselves by adding clauses to the subcarrier lease; for instance, the contract might stipulate that the lessee must provide an outside independent translator who can monitor the SCA and advise the station at any time 24/7. The cost of the translator is added to the monthly rent.

Reading services, telemetry

Microsoft is another major consumer of subcarrier bandwidth. The Smart Watch delivers targeted information from the Internet to a subscriber's wristwatch display using FM SCAs. To ensure optimal coverage, Microsoft is using subcarriers from two stations in most markets. Plans are to provide nationwide coverage, and stations in medium and small markets have been signed up. To date, the service has few subscribers, and sightings of Microsoft watches are rare.

(We asked a Microsoft spokesman for statistics on the rollout; he replied, "I don't have exact numbers on the radio station front, but I do know that the team has worked to create redundancy in most markets so that if there's a problem with one tower, people still get data; MSN Direct is in the top 100 markets in the U.S. and the biggest cities in Canada. As for subscribers, we've been pleased with the initial response to Smart Watches and MSN Direct, but I don't have specific numbers at this time.")



Radio reading services for the blind are another major consumer of subcar-

See SCA, page 18 ▶

Products & Services SHOWCASE

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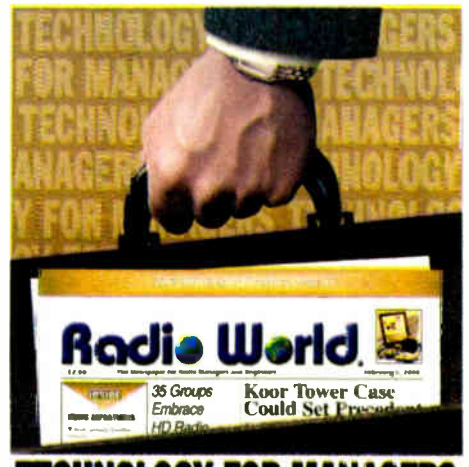

Radio reading services for the blind are another major consumer of subcar-

See SCA, page 18 ▶

SCA

▶ Continued from page 17

riers. They sometimes are run by state agencies and typically are set up as non-profit organizations. They frequently use SCAs on public broadcasting stations.

Lyle Henry, a specialist in leasing subcarriers, urges medium- and small-market broadcasters to consider adding a radio reading service if coverage from the noncommercial station is poor or nonexistent. While it may not generate revenue, the cash equivalent may be used for tax purposes. Henry cautions that this must be cleared with a tax lawyer on a state-by-state basis before proceeding.

In instances where the subcarrier is not leased, creative engineers can find other uses for the bandwidth.

Dave Supplee, Northeast regional engineering coordinator for Cumulus Media, notes that some stations in the group use their subcarriers for remote control return telemetry. One station broadcasts an AM air monitor feed over the subcarrier, so that it can be used for live sports remotes in areas where the night time AM signal is poor.

Bottom line

How much money stations can make from subcarriers depends both on market size and demand.

McGinley said that in the largest markets, New York and Los Angeles, rent might approach or even exceed $10,000 per month from data customers like Microsoft. Traditional analog SCA renters such as ethnic broadcasters typically pay less. Henry said rents can vary considerably from market to market, with Las Vegas fetching $1,000 per month, Boston $3,600, Washington $3,000, and Houston $4,000.

While adding to the bottom line is important, Henry urges broadcasters not to be greedy.

"Many ethnic broadcasters operate on tight budgets and can't afford to pay much more than $50,000 per year in the largest markets. Pushing them for more may result in the station walking away with nothing."

Henry fields a number of technical questions about FM subcarriers One frequent inquiry concerns whether analog subcarriers can coexist with HD Radio.

"I've measured both 67 and 92 Khz subcarriers on professional monitors for noise, and noted only a 2-4 dB difference with HD switched on, so the difference is negligible," he said. His own real-world listening tests with receivers showed no noticable increase in noise.

Mixing analog and digital subcarriers can lead to problems, and Henry suggests using no more that 2 percent injection for the RDS subcarrier if the 67 kHz channel is used for analog. The best plan is to place analog signals on the 92 kHz subcarrier, and use the 57 and 67 kHz chanels for data.

Finally, some broadcasters are reluctant to lease subcarriers in large markets due to potential loss of modulation and loudness, but Henry said this loss is neglibible.

While there has been a lot of enthusiasm for using HD Radio's data channel to generate revenue, skeptics point out that there are still miles of dark fiber that was pulled during the Internet's boom years, and that a broadcaster's data channel can only work in one direction. McGinley said this last limitation can largely be circumvented by having stations partner with satellite, cellphone or other technologies, as is done with OnStar vehicle communications.

Tom Vernon is a multimedia consultant in Philadelphia. E-mail him at tlvernon@blazenet.net or call (717) 367-5595.

California Engineer 'Doc' Hill Dies

Broadcast owner and engineer "Doc" Hill died July 13 in Mt. Bullion, Calif. after a short illness, according to the Merced Sun-Star newspaper.

"He owned KYOS(AM) and KMYT(FM) in Merced from 1966 until 1980," said Doane Yawger, a reporter for the paper. "It wasn't unusual to find him up on a tower fixing something at 4 a.m., which is a little like a publisher of a newspaper dropping everything to fix a press."

Dwight Ewing, a rancher and real estate appraiser in Merced, was a friend with Hill since 1967.

"When he came to town we had a very small community here and since he owned a radio station, we asked him to join our Rotary Club. In fact he followed me as president in 1978. 'Doc' just loved radio and was always willing to help out with civic projects."

Ewing said that Hill was a good-looking gentleman who was always quiet and dignified.

"His big hobby was ham radio, and he and his wife had their own stations," Ewing said. "He was well-liked and articulate and could do just about anything with recording and electronic equipment."

Hill was 76.

— Ken R.

Kenwood Promotes Two-Ways

Kenwood has introduced the TK-2160/3160 compact VHF/UHF portable radio.

Features include 16 channels, 5-watt VHF and 4-watt UHF output, priority scan and talkback, internal VOX capability using compatible non-PTT headset, programmable call alerts and single-inversion voice scrambling.

The radios can operate in the 161 and 450/455 MHz BAS RPU bands as well as business frequencies. The TK-2160/3160 meets MIL-STD 810/IP54/IP55 environmental specifications. Radios may be equipped with a choice of battery packs for up to approximately 12 hours of 5-5-90 duty cycle operation.

Call the company at (800) 950-5005 or visit www.kenwood.net.

SBE Has Curriculum Guide for Educators

The Society of Broadcast Engineers is out with a suggested curriculum for use by post-secondary schools that wish to offer a broadcast engineering curriculum.

"The curriculum is designed so that schools that follow its guidelines will provide a baseline education to students who wish to pursue a career in broadcast engineering," it stated.

"One of the objectives of the SBE Certification Program is to encourage broadcast engineers to continue their professional development and remain current with the state of the art. With dramatic changes that have taken place in the industry in recent years, it has become even more important to understand emerging technologies and how they can benefit broadcasters."

Schools can e-mail Linda Baun at *lbaun@sbe.org* or call (317) 846-9000.

TWR Emphasizes Lighting Solutions

TWR Lighting Inc. offers the High-Intensity Lighting System, or HILS, shown. It uses STIX — Special Technology for Ignition of Xenon Flashtubes — which the company says provides long lamp life, low UV and ozone generation and very low power consumption.

Ease of installation is provided for through the use of a single cable for power and control wires. The computerized controller communicates constantly with the flash heads and displays system status via LCD display or remotely via modem.

Also available is an FAA-compliant combination Dual L-864/865 LED/Strobe lighting system. The company says the combination of LED and strobe yields significant power consumption savings.

A third new product this year is the LED Beacon, a direct replacement for 300 mm incandescent beacons. Advantages of employing LED technology include reduced power consumption from 1,240 watts to 122 watts. Warranty on the LED Beacon and Dual LED/Strobe is five years, on the HILS two years.

Call the company in Texas at (713) 973-6905 or visit www.twrlighting.com.

FIRST PERSON

Outside Broadcasts for RFE

by David Hollyer

Doing a remote for Radio Free Europe was always an experience. It was seldom dull and generally could deliver a surprise or two.

I worked at RFE as manager of the Receiving and Monitoring Station from 1952 until 1956. At the peak of the Cold War, Radio Free Europe was at the height of activity. Its headquarters in Munich, Germany, were located in a long, low building in the Englischergarten, or English Garden. The building housed administrative offices, newsrooms and 22 studios. Strolling through the corridors, one could overhear polyglot conversations. Some were in Czech, others in Polish, Hungarian, French and German. And occasionally in English.

Peering into a studio, you might be looking at a newscaster delivering bulletins live in Hungarian. In another studio, an attractive lady at a stand-up microphone might be waving her arms as she read from a script in Polish being recorded for an evening program. Actually almost all programs were tape recorded for later broadcast or for repeats. The only live broadcasts were newscasts.

Being news-conscious, RFE tried to cover current events throughout Europe. This meant OBs — outside broadcasts — or "remotes."

Ask Fritz

Unlike the practice at American stations, most of the OBs were tape-recorded on location for later broadcast. Sometimes if a program line was available, the show would be piped to Munich Master control for recording there. If the event featured English speakers, it would be broadcast later with voiceover or simultaneous translation in one of the desired target country languages. Some of the earliest sessions of the Council of Europe in Strasbourg were covered for later broadcast.

Although I nominally was in charge of the Receiving and Monitoring operation, occasionally I would be asked to handle one of the remote pickups. One was the taping of a session taking place in London.

A U.S. congressional committee with six members was traveling to various European cities to interview former officials of small countries taken over by the Communists. Among the distinguished interviewees was King Michael of Romania, who had been only a child when army officers invaded the palace in the early morning hours and forced him to sign a paper purporting to be a voluntary abdication.

The hearings were in the ballroom of a prominent London hotel. A long table accommodated the congressmen and witnesses. Joe Petraglia, an audio engineer from the Voice of America, was there with a flock of microphones and Ampex tape recorders. I represented RFE with only a couple of mics and one tape recorder. I saw this would never do; so I called Jack Quinn, my boss at RFE in Munich, director of technical operations.

Jack, an old hand at audio engineering, was eager to volunteer to bring along the gear I was lacking. "I'll phone you from London. Pick me up at the airport!"

Tired of waiting for his call, I went to bed at my hotel about 10 p.m. I had just gotten to sleep when the phone rang about midnight. It was Jack.

"We have a little problem," he told me. "Bring me about 500 pounds in British money. The British Customs won't let my equipment in without posting a bond."

"No," I answered, "but I'll bet you'll tell me."

"They're going to Berlin, and you're going with them."

I didn't mind; I hadn't been to Berlin for a while, and I could take my wife along. She could look in all the shops along the Kurfurstendamm.

Our location for the next affair was a

A 1954 remote in London for Radio Free Europe. From left: unidentified producer; Jack Quinn, director of technical operations; David Hollyer, manager of RFE Receiving and Monitoring Station; and Joe Petraglia of VOA's Audio Operations.

"Where in hell am I going to get 500 pounds at midnight in London?" I asked plaintively.

"Ask Fritz for it," Jack suggested.

Fritz was Frederick B. Opper, a news correspondent and manager of the RFE London office. He didn't appreciate my call. "Five hundred pounds at this hour of the night? Oh, maybe I've got that much in the office safe. I'll pick you up in fifteen minutes." He did, with the necessary money in his wallet.

When we got to the airport, Jack was looking rather stressed out. An exchange of money and a few signatures and we were on our way back to London with plenty of microphones and tape recorders.

Jack and I were up early next morning setting up the extra equipment to wire up the 30-foot table at the hotel. The interviews went well except for inane questions the congressmen fired at the witnesses. But that wasn't our problem.

It wasn't a bad gig. Jack and I would go out for dinner every night and take in a stage play. They were inexpensive, only a pound for the best seats. The hearings wound up in a week, so we packed our gear, collected our 500 pounds from customs and headed back to Munich.

The following week the congressmen conducted their next session in Munich. It went off smoothly.

"Do you know where they're going next?" Jack asked me.

U.S. military building in a park in Dahlem, suburb of Berlin. The Voice of America engineer, Joe, and I set up our gear in a large hall. This time we were joined by another outfit, RIAS. Those letters stood for Radio in the Allied Sector, an American-operated radio station broadcasting to East Germany.

Ssshhhh!

Things went off pretty well until we took our first bread about 10 a.m., at which time the congressman ordered.

"Off the record; turn off the equipment." Joe and I did that. He went to take a smoke while I sat back at the table. Nearby, behind me, the congressmen chatted; I couldn't help but overhear their conversation.

"What's this Radio Free Europe?" one congressman asked the other. "Who runs it?"

The other replied with what, at that time, was secret information. "It's run by the CIA."

That brought me to my feet and in their faces. Being a brash individual, I didn't pussyfoot around. "Well, fellows, I guess you blew it!" I shouted.

"What do you mean?" one of the lawmakers asked indignantly. "And who the hell are you, anyway?"

"Before we say another word," I answered, "let's go far away from those microphones," and led them into a distant corner. "First of all, I am an engineer from Radio Free Europe, and what I'm fussing about is your less-than-discreet conversation a few minutes ago."

"That, sir, was a *private* conversation," he responded angrily.

"Oh really?" I asked. "It was loud enough for me to hear two feet away from you, and if I could hear it, those microphones could easily pick it up."

"I thought I told you to shut down your equipment," he said.

"I did, along with VOA, but there were also RIAS microphones on the table," I said. "They were connected to a sound van in the park, and they record everything. I doubt if they understood that they should close down everything, so I'm pretty sure they kept recording and taped your *private* remarks."

"Oh, my gosh, that's terrible. Can't you do something?"

I told him I'd try.

As I suspected, the German technician had continued to record everything. To make matters worse he had hung two loudspeakers on the side of his van so that spectators in the park could hear everything he recorded.

That was just dandy. I got on the phone to Munich and explained the problem to the RFE director, Dick Condon.

"What's your phone number there?" he asked. "Stay by the phone, I'll call you back." He did in a few minutes. He had talked to the RIAS director and asked him to close down the taping, pull out his equipment and give the tape recording to me to bring back to Munich.

I went back upstairs to confront two nervous congressmen and explained everything. They were greatly relieved until I told them, "Of course, I have no idea who the spectators in the park were. I hope there were no reporters or you may read about your indiscretion in tomorrow morning's newspaper."

I left the chagrined congressmen with a word of advice: "If you can even see a microphone, don't ever say anything con-

See RFE OBS, page 23 ▶

Products & Services SHOWCASE

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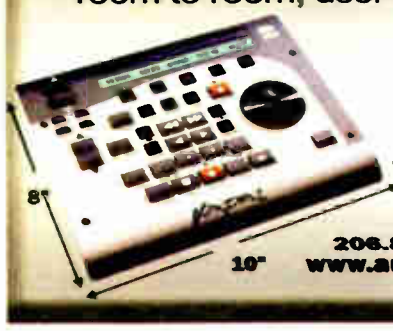

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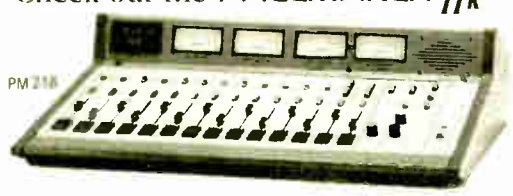

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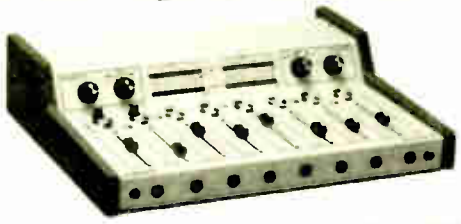

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RFE OBs

▶ Continued from page 20

fidential to anyone."

I returned to RFE Headquarters Munich with the RIAS recording. It was monitored by the security people, then erased, and that was the end of that episode.

Local flavor

Another opportunity presented itself for a remote pickup. This one was in Italy in the 1950s. The RFE Special Events Manager told me about it.

"What do you know about Monte Cassino?" she asked.

I related that I had been in Naples during World War II when the battle for Monte Cassino took place. We used to watch the bombing and shelling at night from a hillside. The German Army was dug into the abbey. It was well fortified; the best efforts of the U.S. Fifth Army couldn't capture it.

The Polish Second Corps under the command of General Anders volunteered to give it a try. They made a fierce assault, with heavy losses, defeated the Germans and captured the abbey — one of the war's great victories. It fell to Polish and American troops on May 18, 1944.

"You got it," she said. "Well, the 10th anniversary of the taking of Monte Cassino is coming up. General Anders is still alive and he and some of the veterans of the Polish Second Corps plan to commemorate it at a veterans' cemetery. The U.S. ambassador to Italy, Clare Booth Luce, will be at the ceremony and will also speak. This is an important event for the RFE's Polish desk, so we want to do a good job for them."

The plan was to send an American studio engineer and a German technician ahead with a remote van equipped with tape recorders, a console and lots of mikes. I would fly down to Rome and we would drive to Monte Cassino and get set up.

Well, it didn't quite work out that way. We met in Rome, but the van was minus its towed AC generator. It appeared that the VW van was having trouble getting over the mountainous territory approaching the Brenner Pass, so the driver unhooked the generator trailer and left it in care of the Customs there.

"So what do we do for an AC generator?" I asked.

"Not to worry," he replied. "We rented one from Cine Citta."

Cine Citta, he explained, was where most Italian films are produced, sort of an Italian Hollywood.

"Any equipment is available to rent — for a price."

"So what did it cost?"

"One hundred bucks a day," he replied smugly.

We drove off to the village of Cassino, generator in tow. Along the way we stopped at a trattoria for lunch. What we didn't know was that this town, like many others in the region, was solidly Communist. When we tried to drive off toward the Polish cemetery, we discovered that two of our tires were flat, sabotaged by some loyal Communist villager who had placed little metal eight-pointed devices under our tires. Half of the local citizens stood by and chuckled as we had them repaired.

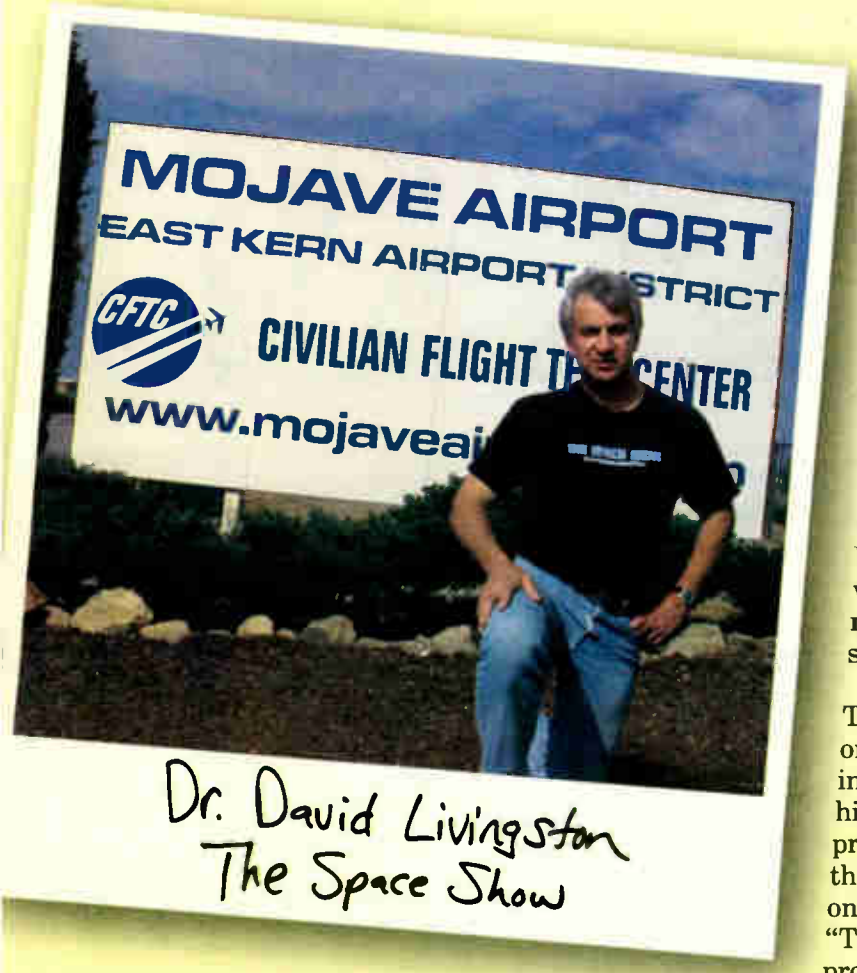
We took off and arrived at our location and set up our equipment, one microphone for the ambassador, another for the general. Everything went smoothly, so we packed up our equipment and headed to Rome — the other engineer and driver to return the rented generator, and I with the tape in hand to the studios of RAI, Radio Italiana, where they connected up with a leased program line to Munich and played back the tape for later broadcast that evening.

Like most of the outside broadcast (or tapings), there were inevitable and unusual occurrences. But it was all in a day's work.

13 Years Ago

Thirteen years ago, U.S. radio broadcasters were getting their first tastes of digital radio and arguing over what form it should take. Early demonstrations of Eureka-147 digital audio broadcasting technology made headlines. Here, listeners compare analog and FM digital reception in a moving vehicle at an NAB show in 1991.

BSW is Stocked with Remo



"I must be BSW's smallest customer, but you never treat me that way," says Dr. David Livingston, creator of "The Space Show," a weekly radio show focused on increasing outer-space commerce and space tourism. "Since I'm not an engineer, I couldn't set up my studio without BSW's expertise. You know exactly what equipment to recommend to me," states David.

The Space Show was the only continuously live internet broadcast of the historic SpaceShipOne private space flight at the Mojave Spaceport on June 21st, 2004. "The attention to our programming was so large, it kept crippling our streaming audio provider, but numerous unlimited bandwidth sites appeared around the world to help us," says David. "BSW provided us with the right gear for our remote broadcast and the results were amazing – our show's biggest-ever success." During the rest of the year, The Space Show airs live on KKNW, a Seattle station, and is streamed and archived to more than 50,000 monthly listeners in the U.S. and thousands more internationally.

David began doing business with BSW two years ago when he switched his programming to KKNW and they recommended BSW for codecs to improve the audio quality of his broadcast. "I was very pleased with the service at BSW. You have a wonderful and helpful staff," says David.

In addition to The Space Show, David is a business consultant and lecturer on commercial space matters. Check out his program at www.thespaceshow.com.

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The amazing rackmount Eagle is a dual-channel ISDN audio codec. Now you can have two remote broadcasts feeding audio to the studio with all three locations communicating with one another, due to the Eagle's unique multiplexing capabilities. The Eagle also interfaces with many popular codecs on the market and even has a back-up POTS mode.

Right now, BSW has a great package deal featuring the Swing and Eagle. Buy both and save an additional $200.00! Call today.

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The Shure M367 field mixer's low-noise design makes it ideal for use with digital transmission links and digital video/audio recording media, including ISDN and DAT. Compact and extremely rugged, the M367 features 6 balanced mic/line inputs, phantom power, input peak LEDs, balanced, 2-position mix bus, all-metal chassis and much more. Purchase the M367 from BSW by September 30th and get a FREE rack shelf!

M367 List $843.34 **669.00**

Secret Undocumented BSW Employee #19: Ned subjects every wireless microphone system BSW carries to extensive field testing, making sure only the most reliable products make it into our inventory.

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Complete PA System Save 50% at BSW!

Save huge on this complete PA package featuring Kustom's Profile System One digital, portable 100-watt PA system. This affordable PA has plenty of in – four balanced XLR with phantom power and five at line level. It even has a plug-in effects bus and built-in digital effects. And the compact design of the line array cabinets make setup and teardown a breeze. Included in this amaz BSW PA package are four Audio-Technica ST95MKII cardioid dynamic mics, windscreens, four mic floor stands, two Kustom KPS-SS100 speaker stands, ft. XLR mic cables and a roller bag. Save almost $500.00 off list prices! Order

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Save big on these two popular headsets with big price reductions from BSW! The Sennheiser HMD280 is perfect for noisy environments, with a noise-rejecting supercardioid mic; and the BeyerDynamic DT290 is an easy-wearing lightweight favorite, comfortable for even marathon broadcasts. Both feature BSW specially-ordered, hard-wired 1/4" headphone and XLR mic connectors – another advantage for you. This special price won't last long, so call and stock up today!

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s latest-generation Solid-State recorder from Marantz is tible with Compact Flash and Microdrive memory cards ow has a USB port, for the ultimate in digital recording! ords in WAV, Broadcast Wave, MP2 or MP3 formats with nable bitrate and sampling frequency, allowing complete ol over file size and audio quality. Recording features le: XLR mic inputs, unbalanced line I/O on cinch/RCA, l I/O; switchable phantom power; auto/manual recording control; and a built-in condenser mic and speaker. 64 MB Card included.

ler now and get a FREE Marantz carrying case from BSW.

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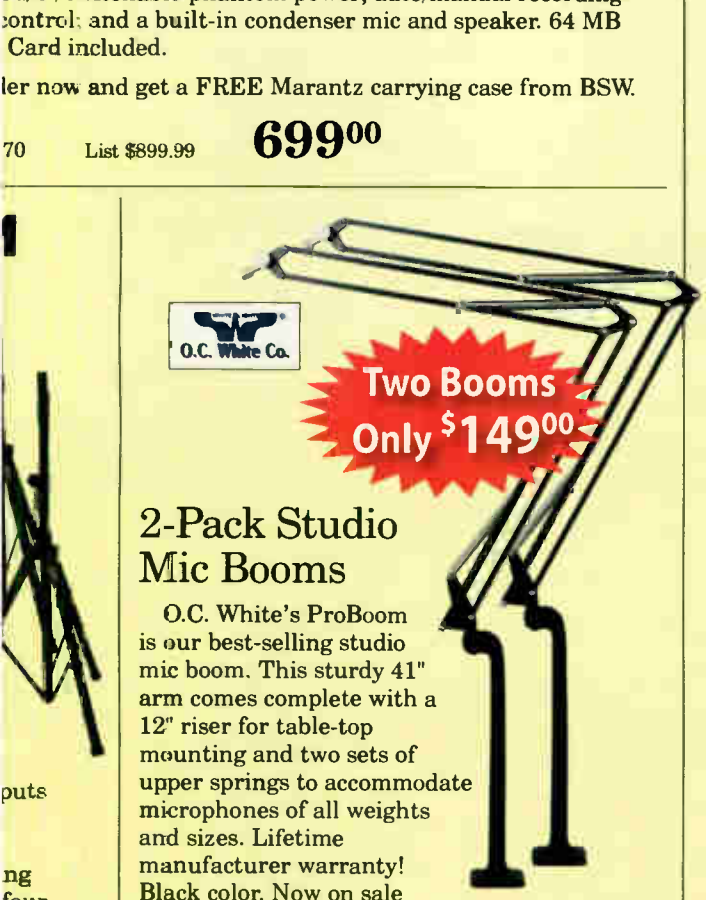
Self-Contained Fender PAs with FREE AKG Mic Packs!

BSW has an incredible offer on all Fender Passport PA systems! Right now, purchase any Fender PA and receive either one or two AKG performance microphone packs! There are six complete Fender systems to choose from so call or go online for a description of each.

The top-of-the-line Passport Deluxe PD250 (shown) is a 250-watt portable sound system complete with a self-powered 6-channel mixer and 2 speaker arrays co-developed with BOSE for amazing, theatre-quality sound! You also get 2 dynamic cardioid mics and all the necessary connection cables. Order today and get TWO FREE AKG dynamic vocal mics with D880 capsules, K55 headphones, mic boom stands and 15 ft. mic cables, exclusively from BSW!

PD250 List $1,149.99 **Call**



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The MDP500 minidisc recorder offers a balanced XLR mic input with switchable phantom power, limiting and ganging. Power is supplied by rechargeable Nickel Metal Hydride batteries (supplied), delivering up to 4 hours recording time. Connections include: XLR mic/line inputs, RCA phono line outputs, coaxial and optical S/PDIF digital I/O, headphone jack and a USB interface.

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Thirteen Seattle stations owned by six separate organizations are installing "Now Playing" systems provided by **The Radio Experience.** The applications include Now Playing for RDS, Web sites and HD Radio. "A second major phase of the project involves integrating Now Playing information into the HD Radio PAD capabilities," the company's Allen Hartle said.

"Seven stations — KISW, KNDD, KMTT, KBSG, KQBZ, KPLU, KING — will be broadcasting HD Radio from Tiger Mountain," a multi-station combined facility. "Our goal is to provide an elegant solution to accommodate the data for HD Radio, while simultaneously providing support for RDS and their Internet Web 'Now Playing' displays."

Six of the stations' data from the studio will arrive at Tiger Mountain from a single STL RS-232 channel, using TRE's multiplexing technology. Hartle called it a unique situation.

"The fact that we have 13 stations in a single market represents a remarkable achievement." Hartle cited **Entercom's** Marty Hadfield and Clay Freinwald for their work at Tiger Mountain, which was featured in an earlier issue of Radio World. ...

Cumulus Media launched a five-station digital complex in Nashville that included **Wheatstone** work-surface products. The complex is the result of a consolidation merging new acquisitions WSM and WWTN with WRQQ, WQQK and WNPL, all FMs; it included the remodeling of a two-story building in Nashville.

Cumulus is using clusters or "pods" instead of linear rows of studios. A glass-enclosed live performance studio has its own control room; it serves radio and TV. The studio needs to accommodate acts of various sizes for Country Music Television and the Grand Ole Opry.

The facility is digital throughout and uses a modular D-9TV television console; Wheatstone says this is the first digital radio facility to mix and process 5.1 audio with the D-9. The radio operation uses G-5 surfaces.

The infrastructure is built around a Wheatstone digital audio Bridge network router, a dual-domain routing system expandable via fiber optic links to multiple cages.

Cumulus also used the **Aphex** Mic Processing Chain in the Nashville facility. Gary Kline is Cumulus' corporate director of engineering. ...

Dielectric said the **Jim Pattison Broadcast Group** of Canada has ordered a 16-bay DCR-MBR broadband antenna for three radio stations in Red Deer, Alberta, plus a three-station combiner and dual runs of 3-inch FlexLine.

Rich Parker, director of engineering of Vermont Public Radio, is in the master control/air studio with two of the station's 12 Neumann BCM 104 microphones.

The supplier also said **Great South Wireless Inc.** has purchased a DCPJ directional panel antenna for WSSY(FM) along with FlexLine coax and a DCR Series side-mount antenna for WEZZ(FM) in Alabama, also with Dielectric FlexLine. Foam FlexLine was ordered for the STL dishes. ...

Radio One signed up with **Media Monitors** for online broadcast monitoring. It will use it as a sales tool and to provide same-day verification for clients that spots have run. The service delivers broadcast information to radio and advertising communities with same-day data via Web site. Media Monitors is a division of AirCheck, a subsidiary of RCS. ...

P.S.1 Contemporary Art Center launched what it called "the world's first art radio station," using services of the **Live365** Internet radio network. The online station is at *www.wps1.org* and is sponsored by Bloomberg. The programming combines talk and music shows hosted by writers, artists and musicians with historic material that includes the audio archive of the Museum of Modern Art. ...

Studio Technologies announcer consoles played a role bringing Super Bowl action to listeners last winter. Raul A. Velez, a broadcast engineer based in San Francisco, used the Model 210 (with one main and one talkback output) and the Model 220 (with two talkback outputs) while working the contest for **CBS Radio/ Westwood One.** ...

Harris Corp. said **Kiss FM 92.9**, Greece's first DAB radio station, chose it to help transmit information to the visitors of the 2004 Olympics in Athens with an audio head-end for DAB transmission for up to 20 audio channels. ...

Univision Radio and **Acoustic Systems** finalized plans for modular studios for **KOSL(FM)** in Sacramento, Calif. According to Charles Roe of Acoustic Systems, construction details and project scheduling were coordinated with Univision's Dave Stewart, based in Dallas, and Eric Martel in Las Vegas.

Acoustic Systems also said it is constructing studios for Univision in Austin, Texas. ...

Neumann said **Vermont Public Radio** has standardized with a dozen Neumann BCM 104 broadcast mics for the five-station statewide network.

Neumann U 89s that had been used as announce mics have been moved to the network's performance studio. ...

Logitek said **Beasley** chose four of its Audio Engines, seven Remora-10 consoles and a vMix virtual console for a five-station Atlanta cluster.

Separately, and without naming the client, Logitek says it sold a $700,000 order consisting of 26 Audio Engines, 30 Remora and Numix consoles, hundreds of audio cards and router control panels, and accessory items to a systems integrator in the Washington area.

"The installation is to be in New York City for a prominent news provider," according to company spokeswoman Elaine Jones.

SUPPLY SIDE

Wheatstone

"Supply Side" is a new series about radio broadcast suppliers you don't know, and facts you don't know about companies you do. This Q&A is with Wheatstone Sales Engineer Phil Owens.

What does the company do?

Wheatstone Corp. manufactures and markets audio consoles, audio routers and control surfaces, studio furniture, and accessories for radio and TV. We have two product lines, Wheatstone and Audioarts. The Wheatstone line comprises built-to-order products and is sold through the factory and select dealers. Audioarts products address mid- to small-market radio needs and are sold through a network of broadcast dealers.

Manufacturing is done at our 52,000-square-foot New Bern, N.C., facility. We offer more than 20 audio console types ranging from a basic $4,000 radio console to a $250,000 digital TV router/worksurface. Our router products range from a 32x32 Audioarts digital router to a complete networked digital audio system consisting of multiple router cages and control surfaces.

Where does the name Wheatstone come from?

Gary Snow started the company back in the '70s in Connecticut. At that time it was known as Audioarts; the main products were consoles, and processors for live sound and recording. Gary designed a new large-format, high-performance audio board and he wanted a name to set it apart from the rest of the Audioarts line.

As you may know, the Wheatstone Bridge is an electronic circuit made popular by Sir Charles Wheatstone in the 1800s. It was used to determine unknown resistance values. You could say, then, that it is "a standard by which all others are measured."

What's the most important technology trend in the design of radio broadcast equipment?

The trend toward distributed routing/mixing systems with associated control surfaces continues to be strong. The advantages of systems that provide networked audio and control throughout a facility are becoming more apparent.

These advantages include the ability to easily switch or retask studios; the ability to share resources such as hybrids, ISDNs and sat demods between studios; ease of system expansion; ease of reconfiguring a control surface for different dayparts; and ease of distributing common signals such as off air feeds throughout the facilty.

Wheatstone is addressing the increasing demand for systems of this type with our line of Generation Series Control Surfaces for the Wheatsone Bridge Router. We offer five surfaces, two styles of router cage and a large number of configuration options for this family of products.

What's unique about your company's manufacturing facilities?

Our factory in New Bern is unique among console manufacturers in that it includes an entire metal shop with both CNC and state-of-the-art laser metal cutting capability, so we are able to produce intricate designs in metal; complete surface-mount lines, a manufacturing technology required by today's digital circuits; a large powdercoating facility — Wheatstone painting/finishing is done in house; a silkscreen shop, used for console nomenclature; and a large manufacturing floor for hand-stuffed components, final assembly and test.

Thus we have total quality control over critical phases of the manufacturing process. The only components in a Wheatstone product (besides resistors, ICs, etc.) that are outsourced are the wooden console endbells and the raw unstuffed PC boards. Everything else is made in New Bern. Many other companies rely on outsourcing for critical components and subassemblies.

Wheatstone Corporation

Info

Company: Wheatstone Corp.

Ownership: Privately held; Gary Snow, owner and president

Headquartered: New Bern, N.C.

Employees: 102

Info: www.wheatstone.com or (252) 638-7000

GM Journal

Winter Promotions Planner

Page 28

Radio World | Resource for Business, Programming & Sales | September 1, 2004

The Media Audit: Arbitron Wakeup Call

by Ken R.

As Radio World reported in April, radio stations in Springfield, Ill., had independently decided recently to drop Arbitron's ratings service.

If that was a ripple in a pond, Infinity Broadcasting's decision to do the same with its 185 radio stations is a tsunami.

In late June, Arbitron issued a press release by Thom Mocarsky, vice president of communications. In it he stated that Infinity, the country's second-largest radio owner in terms of revenue, was indeed ending its agreement, which expires this year. According to Mocarsky, Abitron will lose about $12 million this year alone from that account.

While Arbitron's revised forecast for revenue growth for 2004 is between 5 and 7 percent, Arbitron also states that Earnings Before Interest and Taxes (EBIT) is expected to decline between 5 and 7 percent for the same period.

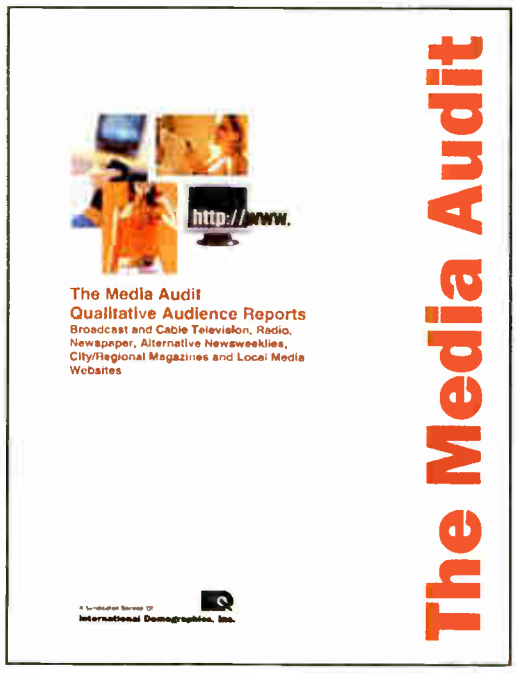
Infinity business accounted for about 9 percent of Arbitron's 2003 revenue.

(In Arbitron second quarter financial figures released in July, President and CEO Stephen Morris stated that he felt his company had met its goal for profitability in an "environment that remained challenging for our customers and for our company." The same report listed the company's revenue at $65.1 million, an increase of 5.9 percent over the second quarter of 2003.)

Mocarsky declined further comment for this article, saying that he could not add anything to the information provided in the release.

An announcement from Joel Hollander, who last year became Infinity's president/COO, confirmed that his company had failed to reach a financial agreement with Arbitron, and that it instead signed a multi-year agreement with The Media Audit, owned by International Demographics, effective July 1.

Karen Mateo, director of communications for Infinity, told Radio World the decision to drop Arbitron was primarily a financial one; she indicated the decision was not based on the quality of data from Arbitron.



Artwork from the cover of a Media Audit publication

She declined to state what the company paid for Arbitron's service or what it would be paying for The Media Audit.

Audit scrutiny

This puts new attention on The Media Audit. Phillip Beswick is executive vice president of the Houston-based company, which provides media and marketing demographic data on consumers in 85 U.S. markets.

"We are a 33-year-old company, and we've had a relationship with the radio industry going back to June 1971 when we signed our first radio contract," he said. "And there are a lot of advertising agencies who use us. We measure radio, television, newspaper, consumer publications, outdoor, media Web sites and cable audiences."

One major difference between Arbitron and The Media Audit is the type of information provided to customers.

"We study the quality of the audience, the demographics that go beyond age and gender," said Beswick. "We look at the presence of children in the family, marital status, education, income and lifestyle. We're also interested in shopping patterns. What we do is take that audience data and translate it into advertiser terms so the clients can better understand the consumer."

The Media Audit has about 2,000 clients, about 500 of which are ad agencies. The rest are media outlets.

"Of the media outlets, about 650 are radio stations," he said. "We have about 200 employees between our data collection and marketing departments."

Another difference between Arbitron and The Media Audit is how these companies compile their data. Arbitron uses written diaries, and is attempting to refine its experimental People Meter device. The Media Audit uses phone calls, primarily made from call centers in Phoenix. Arbitron also has phone centers, in Houston, Columbia, Md. and other cities, but these are used primarily in support of the diary methodology.

Is Infinity's switch from Arbitron to The Media Audit an isolated incident or the first wave of a larger trend among radio broadcasters? The answer differs depending on whom you ask; time will make the answer evident.

Meanwhile, remember those stations in Springfield that dropped Arbitron? The Media Audit has picked up Saga Communications in that market, which owns four stations.

Ken R. is a former broadcaster.

WE GIVE YOU R.

Name: Ken R.

Writes About: Production, management and the humorous side of radio

Experience: Five years in radio, one directing public TV, 23 running a jingle/production recording studio; author of three books including his latest, "The Second Jingle Book"

Mentor: Journalism teacher Fred Marlo

Learning Experiences: Getting fired from several radio stations in the 1970s, standing in a puddle of water while trying to play an electric piano

Quote: "Well, it LOOKED easy at the time!"

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

Stock Up Now for Winter Promotions

by Mark Lapidus

Sweat is dripping down my face as I'm walking back from lunch in the park. What am I thinking about? Air conditioning, for sure; but I'm also thinking about budgets for next year.

This pushes me into the next step: planning winter. Yes, before the leaves start to turn, we must turn our attention to winter; otherwise we'll be too late to effectively do much about it.

Consider this your tune-up for those months when you dream of the weather you're having right now. (Apologies to readers who enjoy constant warm weather year 'round. I hate you; but even you must plan for those months the rest of us have to suffer through.)

First, let's discuss the obvious: snow.

Have you revisited how you're doing school closings? Or has it just kinda become a decision that the morning show stumbled into?

Since the Web has become ubiquitous, many morning shows have almost stopped doing inclement-weather school closings. Review whether this is the right thing for your station, format and market.

Think about how your direct competitors handle snow closings and how you might get a leg up by doing it differently or better.

For markets with a large Internet penetration, I'm a fan of doing the major school systems on the air and telling listeners to visit the station Web site for the rest of the school systems and for updates.

If you're not equipped to do school closing on your Web sites, consider pursuing a deal with a local television station that has a real news department that handles closings. You may be able to cut and paste off their site to yours — with their permission and branding — or if you must, simply link to their site.

Other snow issues to think about:

✓ Do you have a trade deal at a nearby hotel where the DJs can sleep if needed?

✓ Do you have basic supplies in the kitchen like soups and other foods that can be heated in a microwave?

✓ Is it time to renew the deal with the guy who plows your parking lot?

Diapers and more

Now to the fun: winter promotions!

Do you have one major event for winter? If not, you'd better decide on something in the next few weeks. It takes a sales department plenty of lead time to sell events, so give them more than two weeks, for once.

Here are three fun events you can use to kick off your own brainstorming:

"The Diaper Derby": This one works great in a mall. Have your morning show push it on air and host it. Name it after them, too. You can tie it to Christmas; or do it when the mall is dead in January.

Parents sign up their babies to crawl in a race to a finish line. Race the babies in heats of a few at a time. You can clock them for best time, or pair off the winners. Parents can encourage them to crawl but can't touch them. Don't include any baby who is already able to walk.

Give away a family trip as a grand prize. Fill in the other prizes from stores that sell baby products. Invite the local media to cover it. They love this family stuff.

"The Jingle Bell Big Boy Run": It's a race with a twist. The contestants race from food table to food table, then to a finish line. They have to consume a whole plate of some kind of food at each table. Don't overdo it unless you're a rock station that wants the already chewed food everywhere.

The event benefits a charity. (Sure you can include women, although it may be tough to find many who want to run and eat like a pig.)

Caution: "Jingle Bell Run" may be service-marked by the Arthritis Foundation in your market. Ask them.

"The Christmas Wish": This is a true chestnut. I bet stations have been doing this on and off for 50 years. Why? Because it touches people and has real impact.

Locate needy kids in your market, perhaps in foster homes. With permission from the state or local agency that works with these kids, find out what they'd like to have as a present for Christmas.

Have each child make a list of 10 items. Look at the list to determine what you think your listeners realistically will donate. Visit the children and record their wishes.

Produce these wishes and run them in the morning show or around the clock. Have your listeners call, e-mail or visit your Web site to commit to fulfilling the wish. Thank each listener on the air and on your site for each generous donation.

At the end, invite the kids, the donators and the sponsors to a party at a local restaurant. Make sure the party stays focused on the children, with kid food, ice cream, decorations — the whole nine yards. You'll never forget the smiles on those faces.

You may want to tie in your local newspaper with this one. Imagine them publishing photos of the kids.

Let's not forget winter marketing. Television use is way up in the winter because folks are stuck inside, and rates generally are lower in January and February. Add that radio stations don't traditionally advertise in the winter, and you've got a winner. Be on TV when nobody else is on the airwaves.

If you're doing outdoor, think about lighted boards. It gets dark early! If your area is near a ski resort, can you purchase or trade signage?

Winter need not be boring. You can create the entertainment that gets people through those short days.

Mark Lapidus is president of Lapidus Media. E-mail: mark-lapidus@yahoo.com.

Promo Power

by Mark Lapidus

Here's a promotional checklist to get you ready for the winter season.

News Guidelines for Graphic Material

An American is beheaded at the hands of his captors. The sounds are graphic.

Should you broadcast the audio?

The question was a real one for news directors covering the death of Nick Berg earlier this year. It is unlikely to be the last time news people must ask themselves how and what to broadcast. The Radio-Television News Directors Association has a set of guidelines for airing graphic materials that may help.

Barbara Cochran, the RTNDA president, said the guidelines, developed by the association's Ethics Committee, are meant to help journalists in the decision-making processes they face every day. They are reproduced here, including guidelines for video.

Periodically electronic journalists must make difficult decisions involving graphic video and sound. Television news managers understand that the visual images always overpower the spoken word. Powerful pictures can help explain stories better or they can distort the truth by blurring the important context of the report.

Cochran said the guidelines are meant to help journalists in the decision-making processes they face every day, as well as unusual circumstances.

RTNDA has established guidelines to help with discussion when critical issues involving dramatic content arise. RTNDA's Code of Ethics and Professional Conduct states in part that professional electronic journalists "should treat all subjects of news coverage with respect and dignity, showing particular compassion to victims of crime or tragedy." The code does not distinguish between a subject that is alive or dead.

When considering whether to air graphic content the following questions may provide insight into whether or not the news organization is serving the public interest and promoting truth-telling:

1. What is the journalistic purpose behind broadcasting the graphic content? Does the display of such material clarify and help the audience understand the story better? Is there an issue of great public importance involved such as public policy, community benefit or social significance?

2. Is the use of graphic material the only way to tell the story? What are your alternatives?

3. If asked to defend the decision to your audience or the stakeholders in the story, such as a family member, how will you justify your decision? Are you prepared to broadcast your rationale to your audience? If not, why?

4. When is the story important enough to justify replaying graphic material? How will that material be used as file later? Will there be a time limit after which the material is no longer aired?

5. Should you have guidelines or discussions about how to use the graphic material in promos and teases?

6. When is a notice to the audience warranted that they are about to see or hear is graphic? How much detail should the warning provide?

7. Is your news organization prepared to show uncovered bodies of accident or crime victims? If so, under what circumstances? Does showing a covered body meet the concerns of the RTNDA code outlined above? Is it necessary to show blood on a sidewalk from a crime scene? Is it disrespectful to the victim or the family? Does it help tell the story? Can it add to a perception that an area is violent or unsafe?

THE ASSOCIATION OF RTNDA ELECTRONIC JOURNALISTS

8. Before making a decision, can you have a discussion of the pros and cons with a diverse group in your organization? Would you be willing to include non-journalists in that discussion since they are more likely to be representative of your audience? Should you also call others who may be able to give you an "outsider's" point of view ... perhaps a media ethics expert who can help with discussion points?

9. When covering live events that could turn graphic quickly, have you taken sufficient precautions to prevent inappropriate pictures and sound from airing? Is there someone else available to help collaborate on the decision? Have you considered instructing field crews to stay wide on live camera shots?

Source: www.rtnda.org.

Sponsor Pays; Listeners Win

Stations Tap Advertising Partners to Create Contests That Generate Audience Excitement

by James Careless

It was a trip of a lifetime for CHOM(FM) one listener.

The Montreal station sent contest winner Ivan Hansen of Lachine, Quebec, to Greece on Austrian Airlines for a five-day stay in Athens that included tickets to three Olympic events. But to ensure that the contest lived up to its name — "CHOM's Trip of a Lifetime" — the return trip included a 12-day cruise on the Queen Mary 2, with ports of call in Italy, Spain, Gibraltar, Portugal and France.

"Here's how you could win it all," explained the CHOM Web site during promotions for the contest. "Listen mornings at 7:10. Terry and Ted will tell you the 'Artist of the Day.' And then when you hear a song from that artist play, (the) ninth caller qualifies to win CHOM's Trip of a Lifetime from McAuslan Brewery. Every day it's a different artist... every day more chances to win... CHOM's Trip of a Lifetime... The Summer Games & The Queen Mary 2."

Although Hansen was the one who went on the trip, CHOM also won big with the contest.

According to Mathew Wood, promotions and marketing director for Standard Radio Montreal, which owns CHOM, listeners loved the "contest, and called in often for a chance at winning. ... What's not to like? At a value of about $15,000, this was one of the biggest prizes we'd ever offered on CHOM."

The dollar value he cites is in Canadian currency, but the lessons learned may be helpful to any radio station seeking to promote itself.

Sponsor pays

Best yet, "CHOM's Trip of a Lifetime" cost the station nothing.

Not only did the main sponsor, McAuslan Brewery, pay for all the advertising associated with the contest, it even paid for the trip.

The "CHOM's Trip of a Lifetime" contest runs counter to the conventional model of radio travel promotions; traditionally, the station would give advertising airtime to a travel-related sponsor — such as a resort, airline or cruise line — in exchange for the prize.

CHOM is not alone in asking sponsors to pay the full cost including airtime; the Virgin Radio in the United Kingdom follows the same policy.

"We do all of our promotions on a strictly monetary, no-barter basis," said Virgin Radio Head of Promotions Kirsty Fisher. "The client buys the airtime and provides the prize. Typically the contest runs on a £5,000 per day basis." (That's about $9,000 U.S.) "For instance, if a sponsor is giving away a £25,000 car, the contest will run five days."

The main reason for "sponsor pays" promotions is economic: The station simply makes more money.

However, another reason is that resorts, airlines and cruise lines do not have the kind of freebies available for giveaways that they did before the 2001 terrorist attacks in the United States sent the travel industry into economic turmoil.

"The whole travel industry took a kick in the teeth after Sept. 11," said Mathew Wood. "They are still not in a position to just give things away."

"We still do contest promotions with radio stations where we host their morning shows onsite — we even have a fully-equipped radio studio — but we are very selective about who we partner with," said Courtney Huff, public relations manager for Universal Studios in Orlando, Fla.

"We use ratings information to determine which stations are number one in reaching the demographics we are after in certain U.S. cities, and work with these stations. But that is it."

Selling the concept

The fact that Universal Studios is still willing to do contests with the "right stations" and the success of CHOM in convincing McAuslan Brewery to underwrite its "CHOM Trip of a Lifetime" contest prove that the "sponsor pays" model can work. The key is that such a deal must be a win-win for everyone involved: The sponsor must get enough value out of the promotion to justify the expense.

In the case of McAuslan Brewery, the "Trip of a Lifetime" fit nicely with its premium microbrew image and its slogan, "The finer things in life."

It also did not hurt that CHOM staffer Skip Snare knew someone at McAuslan and was able to pitch the idea casually.

Virgin Radio Head of Promotions Kirsty Fisher

"They nibbled at this bait, then swallowed the whole hook," said Wood. "They agreed to underwrite the cost and pay for the advertising airtime. However, it *was* a great package for them, linking the McAuslan brand to the Olympics and the Queen Mary 2 in the listeners' minds."

Virgin Radio "has an entire department dedicated to dreaming up sponsor-backed promotions," said Fisher. "We've found that 'sponsor pays' promotions work well, because they have the necessary funds for good prizes and properly produced on-air promotion. This is why we have even convinced a lot of U.K. holiday operators to take part in such contests and have won contracts with the Malaysian and Singapore tourist boards."

Beyond the revenues they produce, the real beauty of "sponsor pays" promotions is that they can be sold to any client.

In contrast, barter/exchange deals requires partners with something to trade. Not only does this limit the field of prospective partners, but it puts a real crimp on promotions whenever their sector gets hit economically, as is the case with the travel industry today.

An end to barters?

Despite this, a place remains for barter deals in radio promotion, said Wood. "I am a firm believer in taking chances when it comes to soliciting prizes for my stations," he said.

"For instance, we sent two listeners to the Queen's Jubilee Concert at Buckingham Palace in 2002 — which included Rod Stewart, Eric Clapton and Paul McCartney — and were the only station in Canada to do so. The reason was I called up the British Tourist Authority to ask them if they had any tickets available. Lo and behold, they did."

"There's never any harm in asking," Wood said. "The worst thing they can do is say 'no.' All you do then is say 'thank you' and move on."

Still, when it comes to the bottom line, "sponsor pays" makes stations more money and offers them the ability to sell promotions to their entire stable of advertisers.

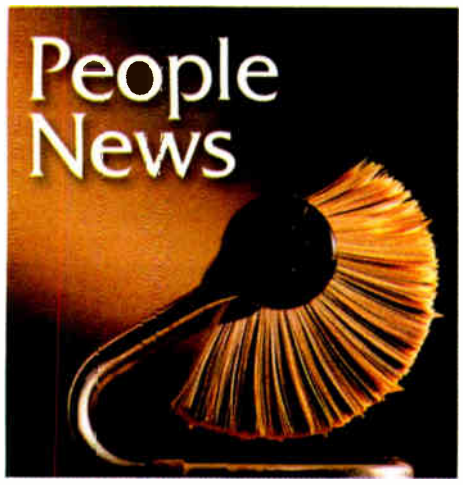
In turn, such promotions can garner the kind of budget that makes something like "CHOM's Trip of a Lifetime" possible.

Not only did the main sponsor, McAuslan Brewery, pay for all the advertising associated with the contest, it even paid for the trip.

How to Submit Letters

Radio World welcomes your point of view on any topic related to the U.S. radio broadcast industry.

Send letters via e-mail to *radioworld@imaspub.com*, with "Letter to the Editor" in the subject field; fax to (703) 820-3245; or mail to Reader's Forum, Radio World, P.O. Box 1214, Falls Church, VA 22041.



We're particularly interested in hearing news about radio engineers and managers. Send news and photos via e-mail to radioworld@imaspub.com or mail to Radio World People News, P.O. Box 1214, Falls Church, VA 22041

Salem Communications promoted three of its GMs to the position of VP and GM: **Pete Thompson**, KSKY(AM) and KWRD(FM), and **John Peroyea**, KLTY(FM), in Dallas-Fort Worth; and **Russ Whitnah**, WFIL(AM) and WNTP(AM) in Philadelphia.

Program director for Los Angeles' KZLA(FM) **RJ Curtis** was elected president of **Country Radio Broadcasters Inc.** He succeeds Westwood One's Charlie Cook. Other CRB board elections include: Premiere Radio Networks' **Gary Krantz**, secretary, succeeding Curtis, who held the position for the last two years; Mayne Entertainment's **Bill Mayne**, re-elected VP; and AristoMedia/Marco Promotions' **Jeff Walker**, re-elected treasurer

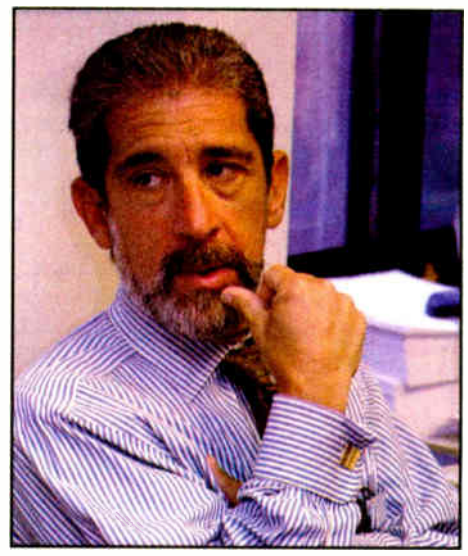
Several members were appointed to the **NAB Radio Board**: **Miguel A. Villarreal, Jr.**, executive VP of sales and network operations for Amigo Broadcasting, Dallas, Texas; **Charles M. Warfield, Jr.**, president and chief operating officer of ICBC Broadcast Holdings Inc., New York; **Susan Davenport Austin**, Sheridan Broadcasting, New York; and **Susan Patrick**, Legend Communications, Ellicott City, Md.

ABC Radio Networks appointed **Ron Rivlin** and **Eric Stanger** to the position of director, affiliate relations. Rivlin had been VP of sales for Professional Concepts Inc., a promotions company. Stanger had been assistant program director and supervisor for morning shows at Clear Channel Atlanta.

Westwood One promoted **Bart Tessler** to senior VP of network news/talk programming, and **Kevin Delany** to director of the department. Tessler had been VP of news programming for the company, and Delany had been director of production.

Arbitron promoted **Brad Kelly** and **John Snyder** to VPs, national radio sales. Both had been managers of the department.

College Broadcasters Inc. added a board member from the University of Texas at Arlington. **Ron Bland,** a member of the communication department faculty, was named vice chairman of CBI. He is responsible for programming the fall convention in Nashville.



Ed Tobias

AP Broadcast's **Ed Tobias** was elected to an at-large seat on the **Radio-Television News Directors Association** Board of Directors. **Princell Hair** and **Nancy Leung**, executive VP/GM and assignment editor for CNN/US, respectively, were elected as at-large directors.

The **Independent Spanish Broadcasters Association** elected its first board of directors: **Amador Bustos**, Bustos Media, Sacramento, Calif.; **Rosamaria Caballero**, Caballero Television, Miami; **Ronald Gordon**, ZGS Broadcasting, Arlington, Va.; **Tony Hernandez**, Latin Entertainment Network, Tampa, Fla.; **Zenon Ferrufino**, Latino Broadcasting, Denver, Colo.; **Alfredo Plascencia**, Lazer Broadcasting, Oxnard, Calif.; **Jose Luis Munoz**, BMP Radio, Houston, Texas; **Abel de Luna**, Moon Broadcasting, Los Angeles; **Francisco Montero**, Fletcher, Heald & Hildreth, Arlington, Va.

Katz Marketing Dimensions, a division of **Katz Dimensions**, expanded with new offices, and named **Judy Carlough** VP and manager, Atlanta; **Jeanne Schad**, account manager, Dallas; **Sharon Bialek**, account manager, Chicago.

Clear Channel Radio honored Top 40 countdown pioneer **Casey Kasem** with its first Lifetime Achievement Award. Kasem launched his first countdown on July 4, 1970, and has been inducted into the Radio Hall of Fame.

Dan Weiner was named VP and GM of **Infinity**'s KTWV(FM), "The Wave," in Los Angeles. He had been station manager for Clear Channel's XTRA Sports.

Ian Epstein joined **RegionalHelp Wanted.com** as senior VP of sales. The company owns and operates local job boards in alliances with local broadcasters to enable online software sales opportunities.

XM Radio promoted several executives: **Gary Hahn**, from VP to senior VP, advertising and brand management; **Rebecca Hanson**, from VP, business affairs and deputy general counsel, to senior VP of the department; **Ann Kontner**, from VP, human resources to SVP of the department; **John Archer**, from director of operations to VP; **Doug Goodner**, from director of product development to VP; **Alex Kondracki**, from director of marketing planning and analyst, to VP, marketing; **John Kramer**, from director of business operations for programming and ad sales, to VP of the department; and **Brian Shea**, from director of retail channel to VP, product marketing and distribution ...The company also recently created the position of senior programming director for its various formats and appointed **Paul Bachmann**, classical and world; **Kenny Curtis**, specialty; **Tim Farley**, news/talk/sports; **Ray Knight**, country; **Blake Lawrence**, hits; **Charlie Logan**, new rock; **George Taylor Morris**, heritage rock; and **Trinity**, jazz and blues.

Amador Bustos

WorldSpace Corp. appointed **Hamza Farooqui** as managing director for WorldSpace South Africa. He is responsible for expanding WorldSpace Satellite Radio in the African region.

Sirius Satellite Radio named **Tola Murphy-Baran** as senior VP of marketing. She joins the company from the National Football League, where she was senior VP of market development...New York City talk show programmer **John McDermott** also joined Sirius as program director for comedy, where he will oversee content and production for two of the network's comedy streams...**Scott Lindy** was named director of country programming for Sirius' six country music channels. He joins the company from Clear Channel, where he served as operations manager for WSMJ(FM), WCAO(AM) and WPOC(FM), at which he also was program director...**Frank Raphael** was appointed to director of news and operations. He had most recently served as director of news and programming for WCBS(AM) New York, and as executive producer of New York Yankees baseball.

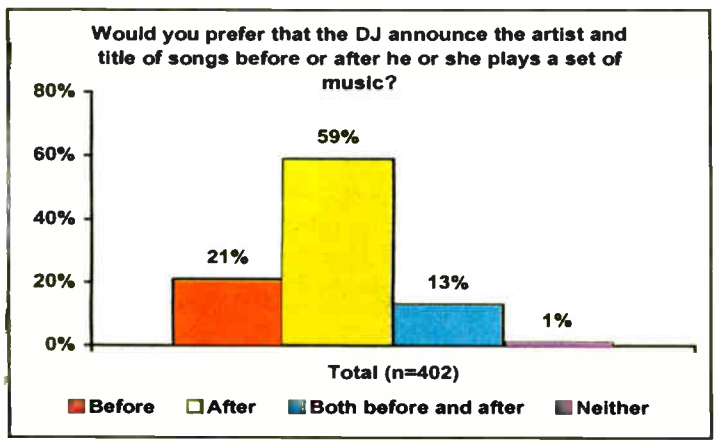
To Backsell or Not?

Paragon Media Strategies this spring said it surveyed 402 respondents age 15 to 64 who listen to the radio for music regularly (67%) or occasionally (33%) to explore their views on the trend towards reducing on-air artist and title announcements.

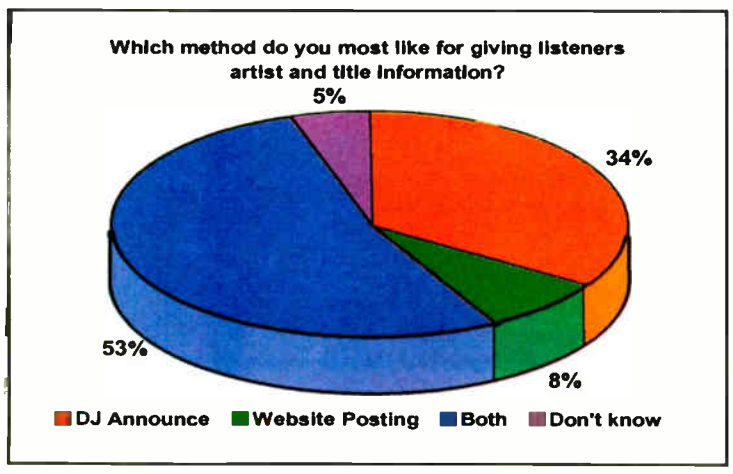
Among the results are those shown below. Also, asked how important it is that radio DJs announce artist and title of songs, 82 percent indicated "Important." Asked if DJs should announce artist and title of all songs or just the newer ones, 67 percent said all songs.

Details are available via *www.paragonmediastrategies.com*, as are the company's recent reports on "Media Indecency Exposed."

Announcement Preference



DJ Announcements vs. Radio Website Posting



USER REPORT

WVLG Builds Second Studio Complex

Balsys Technology Constructs a Lakeside Home for Station in Community Town Center

by David Meadows
Operations Manager
WVLG(AM)

THE VILLAGES, Fla. WVLG(AM) 640 is the "Voice of the Villages," the flagship station of the largest single-site housing developer in the United States. The Villages spans 25,000 acres in three adjoining counties in central Florida. The state's friendliest hometown is self-contained and golf-car accessible, and has its own shopping centers, restaurants, banks, and hospital and medical services. The town touts 250 holes of championship and executive golf, and 300 weekly recreational activities — everything to meet the needs of its residents.

Free entertainment is offered each evening on the original town square, Spanish Springs, which includes a broadcast complex of on-air and production studios to support WVLG's eclectic music and informational format. We play everything from big band and swing to classic rock to the latest hits from country, rock or hip-hop artists.

On the waterfront

The Villages recently completed construction of a second waterfront town center, Lake Sumter Landing. Its Market Square is a comprehensive mixed-use development that includes an eight-screen theatre, shops, restaurants, as well as a second WVLG(AM) 640 radio broadcast complex.

The Market Square studios were designed by **Balsys Technology Group** to interface remotely via fiber links with the WVLG studio at Spanish Springs, so that either studio could be used interchangeably for local program origination and interfacing with live events in the town squares just outside each studio. Both studios perform production duties and serve as the "Voice of the Villages."

There were two challenges in the design and construction of the Market Square studio.

The first was the use of Cat-5-based audio and logic wiring in a configuration that would permit unlimited expansion at a later date. This was accomplished using 25-pair Cat-5 house cables terminated in RJ-21 connections, corresponding Krone blocks on backboards at either end of the chain and a floor trough connecting all areas, which simplified the installation and saved considerable labor and component costs.

The second challenge was the creation of custom furniture that would duplicate the equipment layout already familiar to the operators at the Spanish Springs studio, and match the architectural design of the town center.

The building that houses the Market Square studio is designed to look like an old bait shack on the waterfront of Lake Sumter, and is visible to residents strolling the shore or attending events on the square. The interior decor called for a "bamboo and grass" look, so Balsys Wood Arts used veneered plywood interiors, exotic laminates and maple trim with a custom blended finish to match the color of bamboo.

The company also was responsible for the final furniture construction. Wire management is integral to the design, and we have easy access to our equipment via doors with twist lock fasteners.

The interior design and furniture layout turned out beautifully. The Market Square WVLG studio is comfortable and the staff is proud of their new facility.

For more information, including pricing, contact Balsys Technology Group/Balsys Wood Arts at (407) 654-7611 or visit www.balsys.com.

The interior decor called for a 'bamboo and grass' look, so Balsys Wood Arts used veneered plywood interiors, exotic laminates and maple trim with a custom blended finish to match the color of bamboo.

TECH UPDATE

Illbruck Wall Panels Offer Willtec Foam Core

Fabritec wall panels from **Illbruck Architectural Products** feature a Willtec foam core and a tackable exterior made from a lightweight 1/16-inch fiberglass substrate, and are covered with Guilford FR701 fabrics or microperforated vinyl. Willtec is a fiber-free, open-cell impregnated melamine foam that enables sound absorption, which the company says is comparable to bagged fibrous products, but with less material, thickness and weight.

Panel dimensions include 2 x 2 feet, 2 x 4 feet or custom sizing, and thickness levels of one-inch or 1/1/2 inches.

The company's acoustic test information shows that Model ASTM C423-99a, when using mounting type D, a one-inch-thick panel and Guilford FR701 fabric, offers an absorption coefficient of .18 at 125 Hz; .92 at 1000 Hz; and .67 at 4000 Hz.

Illbruck also features Squareline metal ceiling tiles, Contour wall and ceiling tiles and Sonex baffles and panels.

For more information, including pricing, contact Illbruck in Minnesota at (800) 225-1920 or visit www.illbruck-archprod.com.

TECH UPDATE

Middle Atlantic Debuts Quick-Mount DWR, EWR

Middle Atlantic Products redesigned its DWR wall-mount cabinet series, adding the Tool-Free Quick-Mount system, which enables installers to mount the center section to the backpan on the job site.

Other features include cable management improvements, 24-inch usable depth and optional granite gray powder coat. The company says this version of the DWR series was engineered using input from A/V installers during a "Design Your Perfect Wall Rack" campaign.

The Tool-Free Quick-Mount hinge pin system allows the rack's center section to be mounted to the backpan on the wall without the use of tools. The center section clicks into place at the top and bottom pivoting corners, where the hinge pin is inserted from outside the cabinet and tightened by hand. The DWR is finished in a black or granite gray textured powder coat, is UL-listed in the U.S. and Canada and offers a 300-pound weight capacity.

The series features usable depths of 15, 20 and 24 inches. Two pairs of adjustable rack-rails can be recessed to allow cable managers to be rackmounted. Lacing points are included throughout the center section and backpan, as are knockouts for the company's universal connector panels, which accommodate BNC and XLR connectors, and a laser knockout in the backpan for the removable, 12-1/2-by-12-1/2-inch opening for cable passage.

For systems requiring active cooling, the two top fan knockouts, used in conjunction with optional vent blockers, provide cooling.

Middle Atlantic Products also debuted its EWR wall mount cabinet series and says it is "aggressively priced for smaller A/V operations." The series features many of the same features as the DWR including the Tool-Free Quick-Mount system, but features a 10-1/2-by 10-1/2-inch opening for cable passages.

For more information, including pricing, contact Middle Atlantic Products in New Jersey at (800) 266-7225 or visit www.middleatlantic.com.

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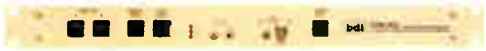
Also, our new 15" riser (#14250) is now modular and includes a built in XLR-F connector and wire. This totally enclosed connector allows the concealed wire to exit out the bottom end or straight down through the table, giving each installation a clean professional appearance.

Digital and Analog Switching /Distribution

Transmitter Audio Solutions ...

The AES-302 Digital Audio Switcher/DA/D to A



The CDS-302 Automatic Composite Audio Switcher/DA

The CDS-300 Composite Audio Switcher/DA

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USER REPORT

The Journal's Radio Arm Relocates

WSJ Radio Selects Studio Technology After Losing Original Facility on 9/11

by Paul F. Herrmann
Senior Technician/Engineer
Wall Street Journal Radio

SOUTH BRUNSWICK, N.J. When you hear the name "The Wall Street Journal," you think of a Pulitzer Prize-winning global newspaper about business and finance. But there is a broadcast side to business news, as well. The Wall Street Journal Radio division operates out of an 11-studio facility in South Brunswick, N.J., providing up-to-the-minute financial news to 228 stations across the United States, in addition to San Juan, Puerto Rico and St. Thomas in the U.S. Virgin Islands.

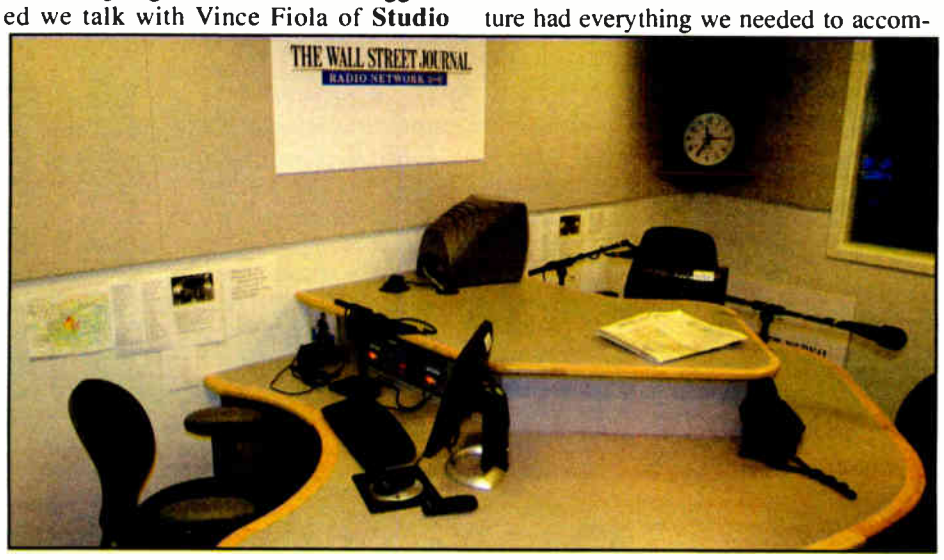
Founded in 1980, the broadcast division of The Journal was housed in the World Financial Center in New York City. After the events of Sept. 11, 2001, the division was transferred to the company's corporate headquarters in South Brunswick. The move necessitated a complete rebuild of our facilities, but it also gave us the opportunity to expand.

Creative approach

The creation of a studio for our new hour-long talkshow, "The Wall Street Journal This Morning," was a big part of the expansion. It became apparent the show would require something unique in the way of studio furniture, more than the standard wall-to-wall flattop desks that are often used in short-form studios. Our consulting engineer, Dan Lohse, suggested we talk with Vince Fiola of **Studio Technology**. I had seen the furniture Vince's shop designed for WCBS in New York and was impressed by its functionality and style.

Vince dropped by our studios, listened to our needs, took some measurements and left with a crude sketch of the furniture we envisioned. When I received the first drafts of the design proposed by Studio Technology, I was amazed. It was far from the boring hexagonal desk we had drawn up, and it complimented the studio space without compromising line of sight or elbowroom for the anchors.

Vince kept in contact with us throughout the fabrication to make sure the furniture had everything we needed to accommodate equipment and personnel. The carpenters who did the installation were sharp and precise, taking only two hours and affording us more than enough time to wire up the studio without any interruption in programming.



Studio Technology's design 'was far from the boring hexagonal disk' WSJ Radio had drawn up.

The furniture has a fluidity that eases the host into his position, allowing him the ability to view the two control rooms and the news anchor with little more than a slight turn of the head. The 21-inch depth of the maple-trimmed tabletop gives ample room for computer monitors, keyboards and a writing surface for the anchors when a last-minute change is at hand. Each position has four-space rack rails for the control surfaces that are mounted flush in the 8-inch riser and sit comfortably within arm's reach of the host and newsperson.

The riser also has plenty of surface space for a printer, television monitor and the requisite coffee mug upon which early morning anchors rely.

For anyone who's had to do wiring through the small panels underneath a studio desk, the three extra-wide access panels in the pedestal are ideal. Good access can make the difference between hours of frustration or a smooth installation.

Recessed behind one of the panels are two 16-space rack rails where our distribution amps and studio hubs are mounted. The 7/8-inch thick panels are ventilated to allow for heat dispersion, and provide excellent baffling for fan noise from the computers the anchors use for newsgathering and script writing. The interior of the pedestal allows for plenty of clearance for the CPUs and wiring, helping to keep the cabling clean and neat.

Studio Technology was attentive to our needs and delivered an above-par product that will serve as the centerpiece of our talk studio for years. In an industry where sound is of the utmost importance, the company's designers and fabricators exhibited an understanding that studio furniture should not only be functional but also aesthetically pleasing in its simplicity and form.

For more information, including pricing, contact Studio Technology in Pennsylvania at (610) 925-2785 or visit www.studiotechnology.com.

USER REPORT

KDAE Opts for Delux Studio Update

Texas Station Dumps 'Old School' Studio Furniture for Spacewise Delux Line

by A.J. Soliz
Operations Manager/Chief Engineer
KDAE(AM) Radio Libertad

CORPUS CHRISTI, Texas When our radio station decided to update our studios, we started to purchase everything new — and I mean everything. We wanted a new audio console, CD players, MiniDisc players, cassettes decks, phone hybrids, microphones and most important, new studio furniture.

There weren't that many companies offering complete studio furniture packages at the time, and much of what I saw was outdated and looked rather "old school." I wanted something fresh and different with stylish features.

Arriving in one piece

As I continued to look around, I figured I would have to hire a carpenter, design something on my own and have it built custom. Then I saw an ad for Spacewise studio furniture. What caught my eye were the sleek back laminate tops with wood trim and the company's slogan, "Fits in Stingy Budgets." I called our equipment supplier, Giesler Broadcast Supply, and asked Dan Giesler about **Spacewise**. I told him I was interested and wanted more information.

A few days later, I received literature from the company. I measured the studio and called Dan back with a problem. I needed to cut a few inches off the main table to have it fit properly into the room. He assured me they would do any custom modification or configuration, and that was all I needed.

We ordered the Delux unit in a black laminate with oak trim. I also ordered matching rack turrets for the majority of the equipment we would be using.

A few weeks later, the shipping truck came in with the furniture. Everything was packaged well, and it survived the journey from Phoenix. The next night I called up a fellow engineer, and we started the process of building the new studios.

KDAE Radio Libertad's Spacewise-outfitted studio.

We began with the new furniture. Thanks to the pre-built base modules, the set up process was easy and only took a couple of hours. Soon, we had the entire studio decked out with the Spacewise furniture.

Features of the Delux line include the combination rack/PC support bases under the main counter; vented equipment racks; room for two or more PCs; and optional sunken console cutouts. Construction features include 1-1/2-inch laminated plywood tops; solid oak or maple 5/8-inch by 1-1/2-inch counter bullnosing; 3/4-inch dual-sided finished cabinet construction with wood trim; and plywood recessed kickboards.

I am pleased with the aesthetics and craftsmanship that went into building the furniture. It also is versatile. There are four entry doors under the main counter. The outside of the main counter features entry doors on both ends, simplifying access to the wiring from the above turrets. Best of all, the doors are European-hinged. Taking them off and putting them back on takes a second or two.

The back of the base equipment racks and the turret racks have pull-out access doors. I love the overall design and layout, as it seems Spacewise knows what engineers are looking for. Everywhere you look there is an easy access point, making installs and trouble-shooting a snap.

It's been seven years since we purchased Spacewise Delux furniture, and it still looks new. There are no signs of cracking, chipping or discoloration. With all the traffic this furniture has seen in seven years, it proves to me that Spacewise furniture is built tough and made to last.

For more information, including pricing, contact Spacewise Studio Furniture in Phoenix at (800) 775-3660 or visit www.spacewise.com.

USER REPORT

Production B Gets a Makeover

California Stations Trade in 'Bulky' Studio Furniture for Harris Smoothline

by Bill Eisenhamer
Broadcast Facilities Supervisor
KSON, KIFM and KBZT
Jefferson-Pilot Communications

SAN DIEGO It was time for us to turn from thinking about the future to implementing it. Last year, our budget was approved to give one of our main production rooms a face-lift and ease our operators into the digital realm. Though the budget was limited, we knew we had to take the bulk of it to purchase the proper console and furniture to make the room multifunctional and ready for the future.

Jeff Prentice, a Jefferson-Pilot production guru, poses in the renovated main production room.

Time for a change

Our 15-year-old furniture was big and bulky, and the room felt crowded. Some say it felt like working in a cave, as two equipment pods on either side of the operator stood so high you could not see out the door. Don't get me wrong; it was functional and did its job well. But it was time for a change.

The plan was to use as much of the existing equipment as possible, for most of it was in good working order and supplied the necessary digital outputs. A new digital audio workstation was going to join the existing Orban Audicy, but the old console was history. And the selection of consoles felt limited because a familiar look and feel to the operators was important.

Taking advantage of our proximity to Carlsbad and the **Harris** Pacific Design Center, our Chief Engineer John Buffaloe and I paid Harris a house call to check out consoles and possible furniture selections. We decided to go with the Harris Legacy, and decided on Harris Smoothline furniture, too. With the difficult decisions behind, it was time to design the room.

The design for this studio had two trains of thought: The room must be a functional production facility and must double as an on-air backup. It would not be a cluttered mix of production and air equipment. The digital audio workstations would not be in the way of air talent sitting across the board from each other. The CD players would be accessible in on-air and production environments, along with the ENCO DAD computer.

With these guidelines in mind, a few rough sketches were produced with the original Orban Audicy and the new Digidesign ProTools sitting side by side creating a digital production environment, while the Legacy console sits to the side with a clean line-of-sight guest position. Once we were happy with the rough drawing, Nick Van Haaster of the Pacific Design Center became our primary contact for the actual design. Having a local contact certainly made life a bit easier.

St. Nick

The main concept was emailed to Nick, and less than two days later I had a first-generation drawing. Nick understood the concept and provided some nice feedback. The old Audicy computer is a tower and required a nice home, in which Nick provided an alcove with a hinged access door to mask the loud computer fan.

Another nice touch is the Henry Engineering World Feed Panel, built into the furniture so that external equipment can be connected quickly and easily. This was a promising addition as the space was designed to accommodate live musicians as needed. As the project developed, open lines of communications were kept with Nick, and three revisions later, a rendering was requested for the final approval and the furniture was ordered.

The day arrived to do the installation and Nick offered to join the fun. The bulk of the furniture was installed before he arrived — a credit to the designer and manufacturer, as there were no surprises and no hidden special "features" for making it fit together.

There were two issues that needed attention while Nick was on site. The equipment pod that housed the CD players was not angled enough to provide the required access between production position and on-air position, a minor detail and easy correction considering the original placement. The same pod incurred minor shipping damage in the form of chipped laminate. Again, Nick took care of the problem.

The assembly of the Smoothline furniture was easy. Some knock-down and modular-type furniture can be more frustrating. Our goals were met upon completion. The room is a functional production environment. The Orban Audicy and the Digidesign ProTools Digi002 work well next to each other. There was room to fit the Apple 20-inch Cinema display, which was an unexpected addition to the room.

Equipment is within reach for production. The room is ready for on-air use with clean lines between the operator and guest positions. Our Production Director Jeff Prentice quickly adapted to the room. Our air staffs, from three different stations and formats, have grown accustomed to the environment and find it user-friendly. Even a regular voiceover artist who works with Jeff made positive comments regarding the design and work.

Overall, we are pleased with the outcome. Nick Van Haaster and the Harris Pacific Design Center were great allies on this project.

For more information, including pricing, contact Harris in Ohio at (513) 459-3400 or visit www.broadcast.harris.com.

TECH UPDATE

MiniTraps Touted For Bass Performance

RealTraps says its MiniTraps fiberglass-based acoustic panels absorb midrange and high frequencies, and feature a membrane for enhanced low-frequency performance, making them suitable for installations where the user desires economical acoustic treatment.

Richard Hilton, recording engineer for producer Nile Rogers, poses with the MiniTraps in his studio.

MiniTraps are 2 by 4 feet and 3-1/4 inches thick and weigh 16 pounds. They mount with one screw or hook, like a picture, without glue or permanent wall damage. The company touts MiniTraps for their specs, particularly at low frequencies. They can be mounted vertically or horizontally, or out of the way on a wall. They are made with fiberglass and metal instead of foam, making them non-flammable and suitable for installation in public venues.

RealTraps says the traps intentionally have lower absorption at midrange and high frequencies so enough can be used for adequate bass trapping without making a room sound dead.

For more information, including pricing, contact RealTraps in Connecticut at (866) 732-5872 or visit www.realtraps.com.

TECH UPDATE

Mager Systems Offers Birch Plywood, 3-D Drawings

Mager Systems designs, manufactures and installs its radio studio furniture, offering 3-D drawings, color renderings and turnkey pre-wiring. The company uses 13-ply Finland birch plywood and engineered lumber instead of particleboard. Clients can select from materials such as standard laminates and wood to solid-surface materials, for which Mager Systems is accredited and certified. A 10-year warranty is included on solid-surface tops and applications.

The company's Web site features images of recent projects, such as Purdue University's WBAA(FM); WHUR(FM), Washington; WAMR(FM) and WLYF(FM), Miami; KTAR(AM), Phoenix; and KKLA(FM), Glendale, Calif.

Mager Systems no longer manufactures its Sound Choice furniture line.

For more information, including pricing, contact Mager Systems in Phoenix at (623) 780-0045 or visit www.magersystems.com.

KKLA(FM) studio in Glendale, Calif.

Leading POTS Codecs Compared.

	Comrex Matrix	Tieline Commander	**Zephyr Xport**
Audio Bandwidth @ 24 kbps @ 19 kbps	14 kHz 11.2 kHz	15 kHz 9 kHz	**15 kHz** **15 kHz**
Direct Internet Software Updates	No	No	**Yes, via Ethernet port**
Digital PC Audio Input	No	No	**Yes, via Ethernet port and supplied driver**
Audio Metering (XMIT/RCV)	Transmit only	One-at-a-time	**Simultaneous**
Audio Processing	None	Simple AGC	**Digital multi-band AGC with look-ahead limiter by Omnia**
Remote Control	No	RS-232 and dedicated computer	**Ethernet via Web browser**
Auto Dial Storage	19 Numbers	50 Numbers	**100 Numbers**
Frequently-Used Settings Storage	none	none	**30**
Standards-based POTS Codec	No - Proprietary	No - Proprietary	**Yes - aacPlus (MPEG HEAAC)**
Transmit-Receive Quality Display	No	Yes	**Yes**
Contact Closures	2	2	**3**
Display Resolution	120x32 LCD	120x32 LCD	**128x64 LCD**
Analog Cell Phone Interface	Optional	Standard	**Standard**
Mixer Inputs	1 mic, 1 mic / line	2 mic / line	**1 mic, 1 line**
Phantom Power	No	No	**Yes - 12 volt**
Automatic Voice-Grade Backup	No	No	**Yes**
Power Supply	External	External	**Internal auto-switching**
Local Mix Audio Outputs			
Headphone	Yes	Yes	**Yes**
Line Level	Yes	No	**Yes**
Direct Receive Audio Output	No	Yes	**Yes**
Uses ISDN at the Studio Side for More Reliable Connections	No	No	**Yes - your Zephyr Xstream becomes universal POTS and ISDN codec.**
Available ISDN Option	$850.00 (adds MPEG L3 & G.722)	$850.00 (adds G.722)	**$495.00 (adds G.722 & state-of-the-art AAC-LD for high fidelity and low delay)**
List Price:*	$3,700.00	$3,650.00	**$2,495.00**

The world's most advanced POTS codec
is also the world's lowest priced POTS codec.

Telos
AUDIO | NETWORKS

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Products & Services SHOWCASE

TECH UPDATES

Omnirax Has 'Fit-Tested' Custom Line

Omnirax says its Custom Line furniture is designed by radio station engineers and architects who develop a detailed furniture plan specific to the requirements of each studio.

The plan features placement of consoles, rack equipment, computer keyboards, mic risers, turrets and copy stands. The design is assembled by computer, and 3-D renderings are produced to confirm gear placement, sight lines and access to equipment for wiring and maintenance.

CAD/CAM design is the hub of the Custom Line.

Furniture can be enclosed or open-plan. Curved elements constructed of bended laminations make possible several sinuous forms. Cable pass-throughs and access ports are cut to enable wires to travel.

Rack equipment may be housed in conventional cabinets below countertops, multi-bay units about the counter equipped with down-lighting or revolving turret racks for ease of access in tight situations.

Surfaces typically are high-pressure laminate with a variety of substrates. Other options for countertops include solid-surface and marmoleum. Edges are finished with matching or contrasting tee-molding for comfort.

Furniture is pre-assembled and fit-tested prior to shipment. Documentation is included to ease assembly.

For more information, including pricing, contact Omnirax in California at (800) 332-3393 or visit www.omnirax.com.

OC White 61900 Reaches 15 Inches, Conceals Wiring

OC White says its Model 61900 microphone riser combination is designed to improve aesthetics by concealing the mic wire and it is easy to install and remove. Attaching a microphone cord to the outside of the riser is unnecessary; the base provides an invisible vertical wire channel through the riser, which is prewired to an XLR female embedded at the top. A three-foot pigtail extends from the base for the user to wire as needed.

The riser can reach a height of 15 inches, allowing for installation behind low-profile VGAs and near-field speakers. The factory-installed mic wire exits straight down through the countertop or though a side channel at the bottom.

The arm provides a channel for an optional mic cable, which may be prewired with connectors and installed or removed at any time. The process requires no threading, removal or reinstallation of connectors.

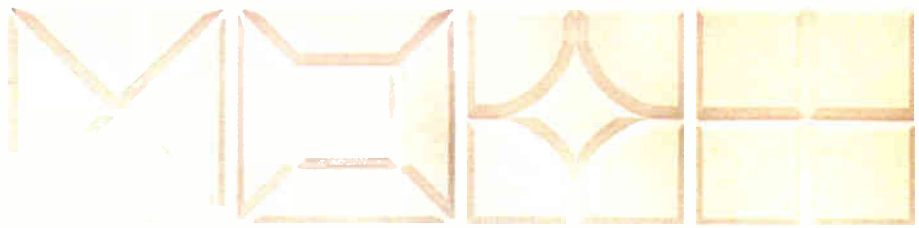
The wire channel uses a wire cover, which makes the arm into a four-sided unit that covers and secures the cable. This speeds installation and improves appearance. Strong, elastic music wire springs are used. OC White touts its arms as silent, where traditional steel springs "crackle" and squeak when removed.

The support system is available in several configurations and mounting options, including a multiple arm mount that accommodates roundtable discussions. The unit has a black and gold finish.

For more information, including pricing, contact OC White in Indiana at (765) 935-3893 or visit www.ocwhite.com.

Acoustical Solutions Adds Patterns For Sonex Tiles

Acoustical Solutions added four patterns to its Sonex contour ceiling tiles, bringing the total of pattern selections to 14. The tiles are available in Hypalon-faced colors such as white, black, grey and almond. Additional options can be found on the company's Web site.



The tiles offer a sound-absorption rating of .70-1.00 NRC, and a size of 24 by 24 inches. They feature thickness levels of 1-5/8 and 2-3/8 inches, and are installed by dropping into a standard ceiling grid. The tiles also are available without backers and with thickness options of 1 inch and 1-3/4 inches, for use as wall panels or to be glued to existing ceilings.

The company says the pliable fiber-free base material carries a Class 1 fire rating, and is resistant to crumbling and broken edges, which eases cutting around corners, sprinkler heads or heating and lighting fixtures.

For more information, including pricing, contact Acoustical Solutions in Virginia at (800) 782-5742 or visit www.acousticalsolutions.com.

Wheatstone Offers Three Furniture Lines

Wheatstone has three lines of modular studio furniture: Preference, Eclipse and Techline.

Each is fabricated with horizontal-grade Wilsonart high-pressure laminates instead of melamine-type material, and can be customized based on individual color and trim-styling preferences. Features include steel machine-tapped components; top and bottom ventilation; removable doors; dual-access punch block enclosures; rack space and cut-through access for internal wiring runs.

Preference countertops have handcrafted corners and rounded wood trim, but may also be ordered using non-wood trimmed solid surface materials. The optional full-extension pullout drawer takes up four rack spaces, allowing four to a cabinet at standup height and three per cabinet at sitdown height.

Wheatstone's Preference line of furniture touts a rounded wood trim.

The company says the Eclipse line of countertops features abundant rack space in the wing counters and console pedestals. The console counter's U-beam provides support, as well as a location for headphone jacks.

Techline, described by Wheatstone as the more economical of the three, features corners that are trimmed with vinyl bullnose in contrast to the wood-trimmed Preference and Eclipse lines.

Each series ships as pre-assembled cabinet sections, which connect using four bolts per section. Floor levelers compensate for uneven flooring.

For more information, including pricing, contact Wheatstone at (252) 638-7000 or visit www.wheatstone.com.

TECH UPDATES

Arrakis Offers Modular Radius-Xp and Modulux

Arrakis Systems says its modular Radius-Xp furniture features plastic surface and trim designs, and is engineered for studio decors where non-wood trims are desired. It is made of wood panels and metal fasteners, and the modular design enables the furniture to be ordered in the necessary configuration.

Panels can be interchanged. The system can be reconfigured or expanded. To expand, unlock and remove an end panel from the existing cabinet; the old and new base cabinets then lock together as a unit.

Colors are medium-gray tabletops and beige side panels. Pedestals are trimmed in gray, table surfaces are trimmed in black. Custom packages and colors are available.

Modulux modular furniture can be assembled left- or right-handed, stand-up and sit-down or in the basic configurations: "short L," long L," "unbalanced U" and "long U." Pedestal returns have optional front equipment racks and rear doors. The table pedestals have options for inside and outside access doors.

The tabletop pod is available in several heights with and without risers. Interview tables can be added. The console table size can be selected to fit the console size. Options include copy stands, mic risers, earphone and turret control placement and media storage cabinets.

For more information, including pricing, contact Arrakis Systems in Colorado at (970) 461-0730 or visit www.arrakis-systems.com.

Aural Xpander Kit Filters External Noise

The Aural Xpander kit from **Auralex Acoustics** consists of high-density acoustic foam components cut in distinct shapes, and is part of the company's ISO series of equipment, which includes GRAMMA, MoPads and HoverDeck.

The 13-piece kit gives engineers control over off-axis colorations, structure-borne resonance and outside noise bleed by filtering undesirable external overtones that the company says push engineers to over-process on the back end during the mixing stage.

Elite ProPanels absorb slap and flutter echoes.

Included are a 14-inch Xpander baffle, a pair of A-shaped Tri-Xpander baffles, four Trap-Xpander baffles and six PlatFeet.

Auralex says its Elite ProPanels provide an aesthetic, cost-effective alternative to full-wall custom fabric systems. ProPanels are fabric-covered acoustic panels that absorb slap and flutter echoes, and feature a chemically hardened edge. They are available in three levels of finishes, styles and colors, and mounting hardware is included.

For more information, including pricing, contact Auralex in Indianapolis at (317) 842-2600 or visit www.auralex.com.

BROADCAST Equipment Exchange

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ACOUSTICS

Want to Sell

ANTENNAS/ TOWERS/CABLES

Want to Sell

Andrews Coax HCC-300. 900' already on the spool waiting to be picked up by buyer. This line was installed in 1982 and removed from service back in November. Just like the antenna I listed it is located in Alert, NC awaiting it's new owner. Asking $2500. Email Mraley@bbnradio.org for pictures.

FCC Tower Signs call 610-458-8418
Antenna ID Products

Cablewave CP-1000-2, 2-bay, FM transmit antenna with radomes. 2000 watt power capacity, brand new, still in factory sealed cartons, complete antenna, does not include transmission line, $1250/BO. Ray Knudson, KNXK, 1229 Park Ave, La Crosse WI 54601. 608-782-2254.

Shively Labs 6810-6R-DA antenna. This antenna is tuned to 92.5FM with a gain of 6.09 and db of 7.85. This was originally installed in 1986 and removed from service back in November. System also included raydoms for ice protection and is 20 dbk max. Pictures are available so e-mail Mraley@bbnradio.org for the full scoop. Asking $20,000. buyer responsible for pick-up and delivery. This system is located in Alert, NC.

AUTOMATION EQUIPMENT

Want to Sell

Smartcaster Live Assist, can run 24/7, 8 decks, computer and rack, great condition, $2300 +shpg. John Wilsbach, WMSS, 214 Race St, Middletown PA 17057. 717-948-9136.

AudioVault computer automation system. Complete system used to operate 3 stations, includes, (2) production stations, (3) On-Air stations, (2) mirrored servers. With (6) AV100 audio cards with daughter boards, 1 stereo record, (3) stereo play on each card. Working when removed from service, will sell all or in pieces. Call for details. John Andrist, KNCW, 320 Emory St, Omak WA 98841. 509-826-0100.

BE AV-100 Audiovault System, includes 92) servers & SCSI drives, (8) AV-100 R/P cards, (7) AV-100 daughter cards, (2) Broadcast Tools 8x2 dual stereo switchers. Buy all or separately, BO. Stan Culley or Justin Barker, KSCJ, 2000 Indian Hills Dr, Sioux City IA 51104. 712-239-2100.

CART MACHINES

Want to Sell

ITC RP machine with delay, runs great, BO. Ron Petersen, KMXL-KDMO, POB 426, Carthage MO 64836. 417-358-2648 or email: ronpetersen@cox-internet.com.

COMPLETE FACILITIES

CONSOLES

Want to Buy

Small, solid state, stereo console, any condition. David Johnson, 970-309-3623 or email: remix9@comcast.net.

LIMITERS/ AUDIO PROCESSING

Want to Sell

(2) Moseley TFL-280 audio limiters. Excellent Condition, with manuals, $500 each. Ask for William, 610-558-1670 (Home); 215-567-2738 (Work); Email: strad41057@msn.com.

dbx 160X compressor/limiters (2), excellent condition, rack mount, $125 +shpg each. Joel Block, The Production Block Studios, 3811 North Lamar Blvd, Austin TX 78705. 512-472-8975.

Eventide Harmonizer, Model H3000, in excellent condition, $500. Joel Block, The Production Block Studios, 3811 North Lamar Blvd, Austin TX 78705. 512-472-8975.

Inovonics David 715 stereo generator, used on high school FM station, great condition, $1000 +shpg. John Wilsbach, WMSS, 214 Race St, Middletown PA 17057. 717-948-9136.

Yamaha SPX 90 II audio processor (reverb, delay, etc) in excellent condition, $125 +shpg. Joel Block, The Production Block Studios, 3811 North Lamar Blvd, Austin TX 78705. 512-472-8975.

Orban Optimod 8100A/1 in excellent condition, like new w/manual, $2250 +shpg. Jerry Evans, KGVM-KPTL, 1860 Idaho St, Carson City NV 89701. 775-782-2211.

Want to Buy

Teletronix LA-2A's, UREI LA-3A's & LA-4's, Fairchild 660's & 670's, any Pultec EQ's & any other old tube compressor/limiters, call after 3PM CST, 972-271-7625.

MICROPHONES

Want to Buy

RCA 77-DX's & 44-BX's, any other RCA ribbon mics, on-air lights, call after 3PM CST, 972-271-7625.

MISCELLANEOUS

Want to Sell

Proteck 20 MHZ Spec. analyzer (A-3502). Make a decent offer. Call Michael Raley (704) 523-5555 or e-mail Mraley@rrb.org.

Want to Buy

Seeking San Francisco radio recordings from the 1920's through the 1980's. Stations like KYA, KSFO, KPO, KWBR, KTAB, etc. Formats in r-r, 16" radio transcription disc, cassette, etc. I'll pay to have copies made for me. Write or call: Ron Tamm, 140 Linden Ln #127, Mill Valley CA 94941. 415-383-6216.

RECORDERS

Want to Sell

SONY PCM-R500 Pro DAT Deck, remote, manual, original box, $750. Also a Microtel telephone interface with Shure mic, $125. 503-977-2189 or email: henry33@aracnet.com.

Marantz professional dual well cassette recorders, Model PMD-520 (4), low hours, excellent condition, rack mount, $95 each. Joel Block, The Production Block Studios, 3811 North Lamar Blvd, Austin TX 78705. 512-472-8975.

Otari MX5050-BII r-r, good condition, includes manuals, BO. Andrew Skotdal, KRKO, 425-304-1381 or email: Andrew.skotdal@krko.com.

Tascam BR-20 r-r, low hours, excellent condition, $650 +shpg. Also **Tascam DA-88** with SY-88 timecode care, $150 +shpg. Joel Block, The Production Block Studios, 3811 North Lamar Blvd, Austin TX 78705. 512-472-8975.

Otari MX-5050 MKII-8 professional 8 track r-r recorder, BO. Stan Culley or Justin Barker, KSCJ, 2000 Indian Hills Dr, Sioux City IA 51104. 712-239-2100.

REMOTE & MICROWAVE

Want to Sell

CDQ-Prima 120 + NT1 interface, very good condition, ISDN quality for your studio or network, $2300/BO. Andrew Skotdal, KRKO, 425-304-1381 or email: Andrew.skotdal@krko.com.

Comrex Nexus ISDN remote unit, $1150/BO, good condition. Andrew Skotdal, KRKO, 425-304-1381 or email: Andrew.skotdal@krko.com.

Comrex Nexus ISDN remote unit, $1250/BO, very good condition. Andrew Skotdal, KRKO, 425-304-1381 or email: Andrew.skotdal@krko.com.

TFT reciter, great condition, $7500. Robert Leembruggen, KAOI Radio Group, 808-244-9145.

Advanced Dynamics TC-8 remote control for spare parts, BO. Ron Petersen, KMXL-KDMO, POB 426, Carthage MO 64836. 417-358-2648 or email: ronpetersen@cox-internet.com.

SATELLITE EQUIPMENT

Want to Sell

MPEG-2 Satellite Receivers, LNBs, C & Ku Band Equipment. www.daveswebshop.com, 479-997-2230.

STARGUIDE AUDIO CARDS REPAIRED! $83 per card, includes return shipping. Email: nf4a@knology.net for more information.

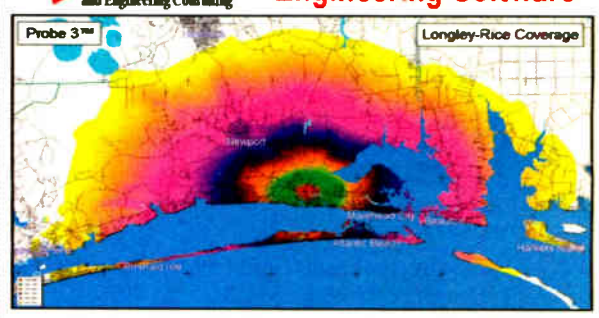
New Dawn LNB Part # CLNB20-PL10, $150. Herman Gibbs, WCWS, Box C-3177, College of Wooster, Wooster OH 44691. 330-263-2212.

Wegner DN 86 Digital Audio Reciever 3944.1 MHZ - $100.00 "as is" plus shipping and handling - Call Michael Raley @ (704) 523-5555 for more information or e-mail Mraley@rrb.org for a picture.

STATIONS

Want to Buy

AM WANTED CHEAP! 478-741-1710.



STUDIO EQUIPMENT

Want to Sell

ATI Audio Distribution Amplifier 2016-1. We have several of these as a result of studio renovations. They cost over $1,100.00 new but will let these go for $160.00 each plus S&H. Contact Michael Raley at (704) 523-5555 for more information or e-mail Mraley@rrb.org for a picture.

Audio Cord Cart machines. We have about Several "E" series playbacks at $20.00 each, 10 "DL" series playbacks and two "A" series playbacks at $20.00 each. Most of them have been refurbished. We also have one "A" series P/R mono, two "E" series p/r mono and two "DL" series p/r mono. Call Michael Raley @ (704) 523-5555 or e-mail Mraley@bbnradio.org for more information. No connectors are available. Will sell "as is". Shipping and handling charges apply. Call Michael Raley @ (704) 523-5555 or e-mail Mraley@rrb.org for some pictures.

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Distributor Directory	$130	125	120	115
Professional Card	$100	95	90	85
Station/Studio Services	$195	165	140	119
Classified Line Ad	$2/word			
Blind Box Ad	$15 additional			

Call Simone Fewell, Ext. 154, Classified Ad Manager, to reserve space in the next issue. Use your credit card to pay, we now accept VISA, MASTERCARD and American Express.

STUDIO EQUIPMENT (WTS) Cont.

Enberg BA - 6 Announciator. Have several of them in great condition with no more than eight years of use in them. Original cost was $359.00 each but we will sell them for $150 .00 each "as is" plus s/h. Call Mike R at (704) 523-5555 or e-mail Mraley@rrb.org for more information.

Ten Nidec motors for Audio-cord "E" series. 117v 6H 3.1w 0.2amp 12p and 600rpms. Will sell "as is" for $5.00 each. Working condition just somewhat noisy. Call Michael Raley (704) 523-5555 or e-mail Mraley@rrb.org.org for pictures.

TFT 713 AM Frequency and Modulation Monitor. Cost $3,400.00 new but will sell for $1000.00 plus S&H. Needs re-calibration. Call Michael Raley at (704) 523-5555 or e-mail Mraley@rrb.org for a picture.

Two RTS 416 Distribution Amplifiers. Has slight problem pushing +4. Cost $1,173.00 new but will take $300.00 for each unit plus S&H. Call Michael Raley at (704) 523-5555 or e-mail Mraley@rrb.org for a picture.

Audi-Cord DL Series/E Series in good condition w/manuals, (3) recorders, (4) players, $20 each +shpg. Also have (3) Russco RTA-12 turntables, $20 +shpg. Jerry Evans, KGVM-KPTL, 1860 Idaho St, Carson City NV 89701. 775-782-2211.

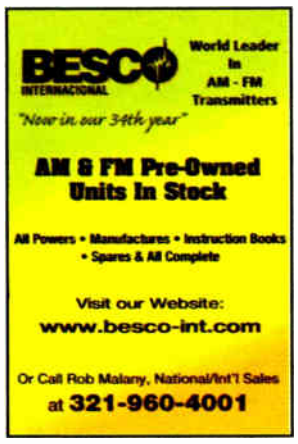
TRANSMITTERS

Want to Sell

McMartin BF-5K, 5kW FM. Factory rebuilt in perfect, like new condition, includes new tubes, tested & tuned on your frequency. Guaranteed, fully adjustable from 0 to 5.5 kW. Goodrich Enterprises Inc, 402-493-1886.

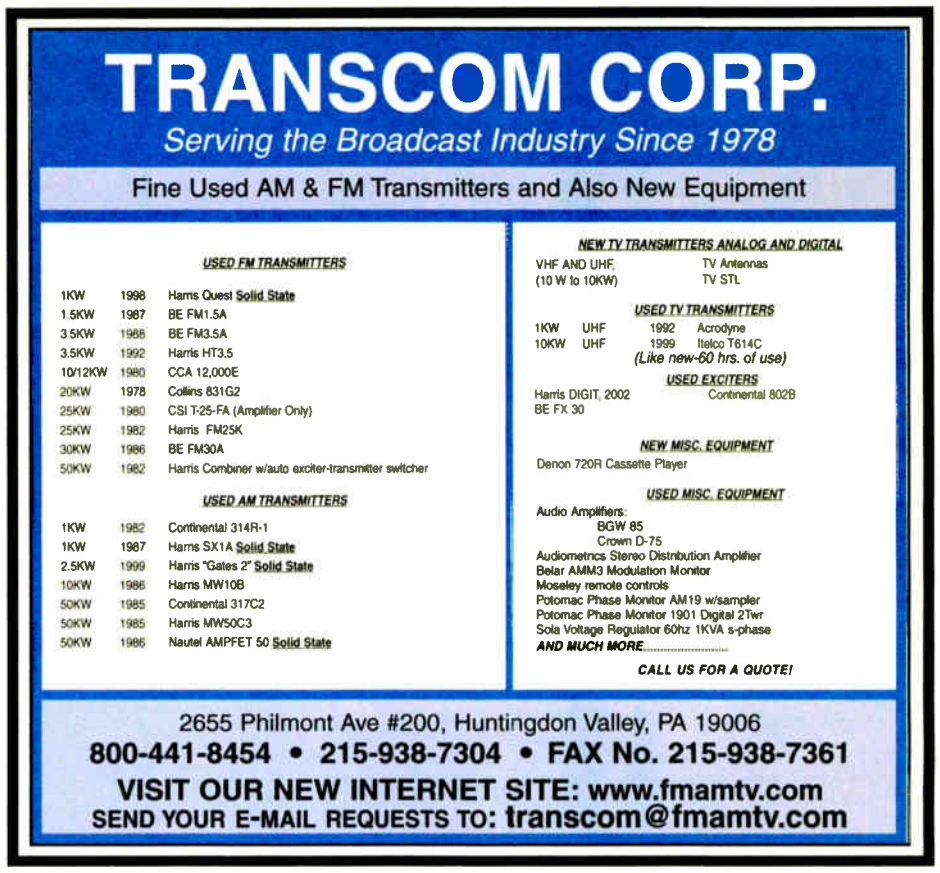
CSI T-25-FA FM Transmitter. Recently remoed from service in Savannah, GA after 18 yrs of solid operation. Includes Relay interface for remote control and Low Pass filter but not the exciter. This is a three-phase box tuned to 89.5 FM. TPO is 25k with an efficiency of .73. This also includes a CSI T-3 which drives the final. We have the manuals for both. Asking $13,000 plus buyer arranges shipping. Give me a call at 704-523-5555 or e-mail Mraley@bbnradio.org.

QEI FMQ series 6.0 to 9.6FM. This xmitter did a tour of duty in Argentina but some goofy laws in this country made it impossible to permit the station to operate at this power. To make a long story short it was only in operation no more than four months. Will let this go for $18 ,000.00. Call Mike Raley at (704) 523-5555 or E-mail Mraley@rrb.org for pictures.



RCA BTA1S 1000/500 watt broadcast transmitter with new matched pair of 400-C power tubes in transmitter plus spares. AM crystal oscillator at 1300 in transmitter with manuals, $3000. Donald De Rosa, WAMF, 315-593-1300 or email: WAMF1300@alltel.net.

DB Electronica FM xmtr on 93.5 mHz. Approximately 9 years old. Working when removed from service in mid-June. Exciter recently rebuilt. Call Travis or Gordon, KWME, POB 249, 338 South KLEY Drive, Wellington KS 67152. 620-326-3341.



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TUBES & COMPONENTS

Want to Sell

4CX250BC used tube in good condition, made 100% power when last used. Was kept as stand-by, $85.00. A. Martin, 27518 County Road 3, Merrifield MN 56465. 218-765-4321.

New 4CX250BC tube, $120.00. A. Martin, 27518 County Road 3, Merrifield MN 56465. 218-765-4321.

EMPLOYMENT

HELP WANTED

Wanted...experienced announcer for traditional country station. Production skills helpful. WYTI...Rocky Mount, VA. Phone 540-483-2264 after 7PM or 540-483-9955 between 1-4PM.

POSITIONS WANTED

Creative, energetic, outgoing, charismatic, ABS grad seeking challenging position in broadcasting. Any format, production, copywriting, on-air. Call the Reverend for a spiritual experience. Brandon, 405-474-0574.

Hispanic rookie on task in looking for that special station to call home. Bilingual and ready to travel. Ike (Mad Mexican) Soliz, 214-339-1336.

Rob, "The Music Man" or "Razorback Rob" with the sports, either way dependable, exciting, hard working and always with something to say. Rob, 405-672-8978.

Rookie in need of a start. I'm motivated & proficient in DRS and Cool Edit 2000. Willing to travel. Stephen Smith, 817-451-8441 or consv2001@yahoo.com.

Since 2003 Paris Vaughn has lit up the airwaves on KABS. She's precocious, aggressive, ambitious and on fire. If interested, call 917-754-1304.

Smart, witty, warm and fuzzy DJ, producer, board op, newscaster, Nicholas Del Toro is the man you want to get the job done right. 940-458-7245 or Nicky_Del_Toro78@yahoo.com.

Strong male voice seeks Dallas area position. ABS graduate with 8 years professional digital audio experience. 972-240-6233. Listen to aircheck online at: http://bill.snoeck.home.comcast.net.

The best in pure talent, energetic, enthusiastic, funny and down to earth. Available to make your station number 1 in all areas. Hezekiah, 405-412-5471.

Aspiring rookie broadcaster seeks chance for position in broadcasting, with the intent on contributing to an even more fun and informative experience for listeners. Laura, 405-816-8373.

Beginner dreaming of a shot as an on-air DJ, weather/traffic reporter or newscaster. Will also do production. Unique sound! Relocate if needed. Brooke, 405-613-9681.

Entertaining, passionate, and creative graduate looking to break into the broadcasting industry. Will travel if needed. Precious Ramey, 972-633-2538.

News, commercial, copywriting digital production, board op, or on-air talent. Rookie, willing to relocate. Just married, and ready to work! Carl R Ciprian III, 817-595-1831.

Recent ABS graduate, excited about radio! Fun personality! Will work hard to get the job done at your station, sweep floors/scrub toilets (LOL). Jake, 405-677-2343.

Recently graduated from ABS, cool-edit trained and have a voice for radio. Enthusiastic and fun loving! Willing to relocate. Call tracy, 405-733-1336.

ACTION-GRAM

EQUIPMENT LISTINGS

Radio World's Broadcast Equipment Exchange provides a FREE listing service for radio stations *only*. All other end users will be charged. This FREE service does not apply to Employment Help Wanted ads or Stations For Sale ads. These are published on a paid basis only. Send your listings to us by filling out the form below. Please be aware that it takes one month for listings to appear. The listings run for two consecutive issues and must be resubmitted in order to run again. Thank you.

Please print and include all information:

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❑ Yes ❑ No

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***Closing for listings is every other Friday for the next month's issue. All listings are run for 2 issues unless pressed for space or otherwise notified by listee.**

Broadcast Equipment Exchange
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GUEST COMMENTARY

HD Radio Will Sell Itself

The Public Will Love IBOC When They Hear It, So Smart Stations Should Make the Switch

by John Arndt, BSEE, CPBE, CBNT

Enough already.

I feel like I'm in an AM radio time warp. I read the letters praising IBOC, dismissing it as a passing fad and those downright saying it will completely ruin the AM band. Gee, if you think back 20 years, as we veterans of AM radio can, it sounds like deja vu all over again. The Motorola system of AM stereo is best; no, the Magnavox system is better; wait, the Kahn sideband system is best, and so on and so on.

Here's the bottom line, folks. Installing the HD Radio system on your AM station is a matter of choice. But it will be installed on many AM stations as soon as they can get the equipment. Because there will be no mandate to install, the situation will be like that of (analog) AM stereo, in that some will broadcast with the system and some will not. We chose to install the HD Radio equipment here at WPEN in Philadelphia.

While it was not my decision to make, I probably would have decided the same.

Your choice

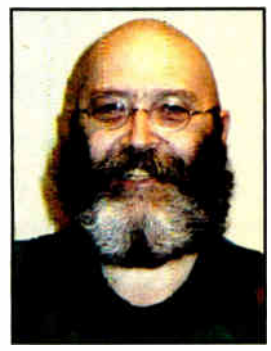
Are there compromises in the analog world? Yes, I won't deny that.

We had to turn off the analog stereo signal and limit the analog audio bandwidth. And, yes, I do hear those compromises in my fairly wideband Chrysler AM stereo radio in my truck.

Am I happy with that? Not really, as I do miss the analog AM stereo we had broadcast on the WPEN music format. The digital carriers do introduce some noticeable hiss to the main channel on my radio, but it is tolerable for the most part.

As for the naysayers who feel the AM band will be trashed with all the noise and adjacent-channel interference from the digital carriers, I say phooey. Only an extremely small percentage of your main audience would ever listen to your station past the contour of the digital coverage, anyway. And certainly, all of the businesses that produce your stations income would be within the main contour area, as well.

As HD Radios become more prevalent, either as options in cars or portables, and more people have the capability of receiving AM in HD, the stations that chose not to broadcast in HD will take a major hit in listeners.



John Arndt

Truth be told, with the new codec, AM HD Radio sounds fabulous. The sound from an AM HD Radio is far superior to the best analog AM stereo I have ever heard. No static, no phase shifting, no limited frequency response — just amazing sound, especially for music formats. I surmise that once listeners get their hands on AM HD Radios, they probably will only listen to AM stations broadcasting in the format.

We can all stand here and argue AM HD Radio until we are blue in the face, but it's a personal choice. The public ultimately will determine what it likes, but I think AM HD Radio will be embraced once it is heard. Your station could be on the air with HD when a listener tries out a new HD Radio and looks for a station to preset. Or employ it at your AM station down the road and hope they tune to you at a later time. It is indeed your choice.

John Arndt, BSEE, CPBE, CBNT, is the assistant chief engineer for Greater Media's Philadelphia Radio Group.

ADVERTISER INDEX

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40	Comet North America	www.cometna.com
7	Comrex	www.comrex.com
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40	Cortana	www.cortanacorporation.com
3	Electronics Research Inc.	www.eriinc.com
27	ESE	www.ese-web.com
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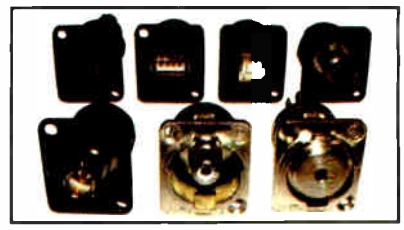


Just wanted to let you know that we appreciated the exposure for our new EH Series on the cover of your June 16 issue. However, in case your readers are interested in more details, I've provided some basic information.

The EH Series is a complete line of audio, data and video connectors mated with a standard XLR housing. Included in the series are RCA, BNC, USB, Firewire, S-video, and 9- and 15-pin d-subs. Future options will include Cat-6, Toslink, MIDI, and SC and ST style fiber.

For more information, contact Switchcraft Inc. at (773) 792-2700 or visit *www.switchcraft.com.*

Jim Hoffman
Broadcast Sales Manager
Switchcraft Inc.

HD Briefing

Here is my HD Radio experience....

I drove from New Hampshire to South Carolina with the Kenwood expansion chassis plugged into my KTC-X869 Head Unit.

Boston: WROR(FM) — synchronized audio (HD sounded good); WQSX(FM) — not synchronized, harsh audio, harsh transition to go with it, good coverage; WBZ(AM) — not synchronized, decent audio, (resembled Internet audio), good coverage.

New York: WOR(AM) — synchronized, spotty HD reception even though the analog was clean (text on display); WNEW(FM) — not quite synchronized, good sound; WNYC(FM) — not synchronized, spotty digital coverage in full view of N.Y.

Philadelphia: WXTU(FM) — don't remember if synchronized, decent sound and coverage; WPEN(AM) — synchronized, great stereo sound coverage was almost too good, HD stayed locked beyond analog usefulness.

Washington: WETA(FM) — don't remember if synchronized, text message; WHUR(FM) — not synchronized, good coverage, text message; WPOC(FM) — synchronized, good blend, HD sounded better than analog by far, text message. (There was a Spanish AM in HD also — sounded good, text message.) Noteworthy: 99.1 WHFS(FM) (no HD Radio) has its TA/TI flags up (RDS) and caused my head unit's internal tuner to take over until I disabled that feature.

Raleigh, N.C.: WRAL(FM) — not synchronized, HD audio was lower than analog, song title and artist on my HD display. Cool!

My Kenwood 869 has RDS, but unfortunately it was left out of the HD expansion chassis.

Art Pepin
Chief Engineer
Greater Boston Radio Inc.
Boston

Radio World, September 1, 2004

GUEST COMMENTARY

Engineers, What's in a Name?

A Broadcast Engineer Defends His Title in Response to a Longtime Dispute Over the Term

by Dave Obergoenner

Is there any future for "engineers" in this business?

Merriam-Webster's Online Dictionary defines an engineer as follows:

en·gi·neer *Function: noun Date: 14th century 1 : a member of a military group devoted to engineering work 2 obsolete : a crafty schemer 3 a : a designer or builder of engines b : a person who is trained in or follows as a profession a branch of eng neering c : a person who carries through an enterprise by skillful or artful co trivance 4 : a person who runs or supervises an engine or an apparatus*

Not too long ago, KMIZ(TV) in Columbia, Mo. received notice from the Missouri Board of Architects, Professional Engineers, Professional Land Surveyors and Landscape Architects noting that a complaint was filed against the station for utilizing the term "engineer." The complaint was filed by a retired professional engineer, and stated that the station was "deceptively representing its employees as engineers even though they were not licensed as such."

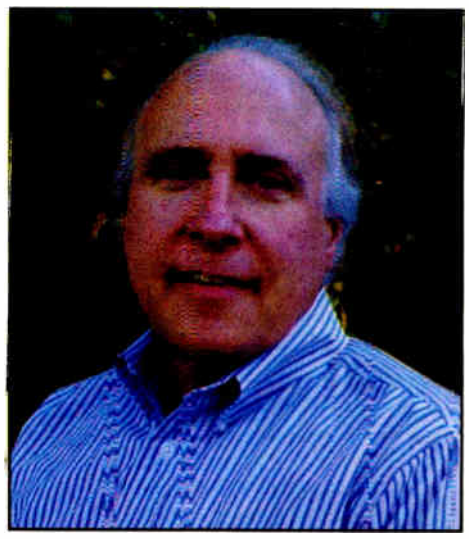
The station was asked by the state to comply with Chapter 327 RSMo by not using the term "engineer."

"Obviously, this is an uninformed decision on the part of the state of Missouri," says Don Hicks, director of The Missouri Broadcasters Association.

The MBA tells me they will meet with the board to discuss this matter, as it has been an ongoing battle within the industry for many years. Furthermore, they say they are prepared to take whatever steps are necessary to remedy this situation.

For at least 80 years, the people in charge of installing, aligning and maintaining the broadcast equipment in broadcast facilities have been called engineers. One of the magazines I get is called Broadcast Engineering. And aren't many of the people in recording studios called recording engineers, and the folks that master the records called mastering engineers?

In some cases, it would be a stretch to call the guys that sit and run the boards at radio and TV stations engineers. They are usually referred to as "operating engineers." The guys that actually fixed the stuff were usually called "technicians," "technical engineers" or "the *real* engineers."



Dave Obergoenner, card-carrying broadcast engineer.

The certification I have from the Society of Broadcast *Engineers* is called a CPBE, or Certified Professional Broadcast Engineer. It took me, and many others like me, years of training and experience to learn the thousands of things a broadcast engineer needs to know. And to maintain that level of certification, I have to jump through all kinds of hoops, as in continuing my education and documenting my experience every few years. It would seem to me that I somehow qualify for the term.

I used to hold a First Class License from the Federal Communications Commission, and still hold a lifetime General Class License. Is there no value in all I had to learn to pass all those tests? And what about the IEEE (Institute of Electrical and Electronics Engineers)? Or the AES (Audio Engineering Society)? I really don't think all the members of those fine organizations are PEs.

If the shoe fits ...

My certification by the SBE, a long-standing national organization, says I'm an "engineer." Everyone in this business calls me, and others in my field, an "engineer." What else would I call myself?

After an 80-year history of that being the term for what I do, it's pretty difficult to accept someone from Big Government saying, "You can't call yourself that anymore, or we will sue you and put you in jail." It's disturbing to thousands of us in the field.

For official purposes pertaining to this industry, if you define yourself correctly as a "broadcast engineer," it should be acceptable. I doubt anyone would hire a broadcast engineer to design a bridge or a hospital, but I do think we, at least the certified ones, should be qualified to design a studio or a transmitter site. We always have been, and I think our safety and reliability record speaks for itself.

By the way, wasn't the term originally applied to the guys who ran the steam locomotives (engines)? Seems to me you can dictate the writing of statutes any way you want if you have enough money and political power, and this just reeks of big money lobbying to me.

Please don't misunderstand, for I have tremendous respect for the hoops through which the PEs have to jump, and the many qualifications required in obtaining that well-respected title. That is why I usually introduce a PE as "a *real* engineer."

We may just have to agree to disagree on this one as far as broadcast engineers (BEs) and PEs are concerned. It will be interesting to see what the MBA and SBE do about it.

Now that I've written this, I suppose it's only a matter of time until the title police come looking for me, too.

Dave Obergoenner is corporate director of broadcast engineering for the Zimmer Radio Group in Cape Girardeau, Mo., and owner of ObieOne Broadcast Technical Services Inc.

Everyone in this business calls me, and others in my field, an 'engineer.' What else would I call myself?

Satellite Offers Stability

Regarding NAB objections to satellite radio's programming:

While I acknowledge there are still excellent broadcast operations providing much needed local community service, they are becoming scarce. Recently, we have seen ownership restrictions removed, local radio stations turned into translators and the stripping and consolidation of facilities so they can be turned for profit — the equivalent of trading pork bellies on the stock market. It's as if the industry is stripping itself for short-term gains.

Without restrictions, it has opened Pandora's Box. This instability coupled with ever-changing formats leaves the listener not knowing if their favorite station will be there when they wake-up. XM and Sirius provide this lost stability.

Much of what I hear when I tune across the dial these days is satellite-delivered and voice-tracked automation to begin with, so many radio stations have essentially become terrestrial repeaters for satellite programming. The programming might as well be coming from the moon, so why are XM and Sirius any different?

XM and Sirius, while viewed by the NAB as a threat to the broadcast industry, are giving 1.5 million + listeners (and growing) an alternative to what can be found on AM and FM. And people are willing to pay for it. That alone should be a wake up call.

While the NAB cries foul over XM and Sirius delivering local traffic and weather and using terrestrial repeaters, many radio stations that used to provide true community service are now simply burning up electricity under consolidation. While the NAB and broadcasters vie for more deregulation. I find it ironic that an industry seeking deregulation is looking to regulate another.

If broadcasters feel that they are providing outstanding community service and programming, they should have nothing to fear from XM and Sirius. Satellite-delivered radio is just another choice for listeners, similar to MP3s and CDs.

Broadcasters could have had a true, all-digital delivery system that really worked 10 years ago — but of course, that went the way of AM stereo. The NAB is angry at XM and Sirius efforts to deliver local traffic and weather. Yet over the years I have seen broadcasters give up opportunities to improve service that would have made them technically competitive with XM and Sirius — and would have placed broadcast operations more in line with our "multimedia" society. People are going to gravitate to the better alternative.

The NAB cites unfair competition, but it is they who have lobbied for relaxation of the rules that otherwise ensured fair and equal competition and diversity in the media. Why do they think people were so angry about the FCC ruling to further relax ownership rules? Now XM and Sirius are on the air and stand to be a strong competitor against an industry that seems nervous about competition. Instead of being litigious, the broadcast industry should rise to the challenge and understand that the growing number of satellite radio subscribers is fueled by not only technology, but also public backlash.

With roughly 3 million satellite radio subscribers and growing, the genie is not going back into the bottle.

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GUEST COMMENTARY

Private Shortwave Broadcasters on DRM

NASB Calls It a 'Win-Win Proposal,' Shifts DRM Focus From Europe to U.S.

by Mike Adams and Jeff White

The National Association of Shortwave Broadcasters has followed the development of the Digital Radio Mondiale consortium since its foundation in 1998, and joined as one of the first associate members of DRM in 1999. Like most shortwave broadcasters, we were very curious about this new digital shortwave technology. If it had any chance at all of succeeding and breathing new life into a medium that many predict is "dying out," we wanted to be a part of it.

To succeed there would have to be a common worldwide standard and inexpensive receivers. There were three proposed systems to begin with, and we were pleased to see how quickly DRM progressed to a common agreed system. DRM could have died in a battle of conflicting standards.

The NASB also wanted to be a member of DRM because we represent a fairly large group of privately owned shortwave broadcasters, and we thought we could perhaps contribute the private broadcaster's perspective to the DRM consortium.

We have been involved in DRM activities in various parts of the world. NASB took part in the official inauguration of DRM at the World Radiocommunication Conference in June 2003 in Geneva, and the DRM annual meeting in China in April 2004. NASB, along with the Ten Tec company, demonstrated DRM at the National Meeting of Mexican Shortwave Listeners near Mexico City July 2003.

Over there

DRM challenged all broadcasters to put DRM signals on the air, in an effort to show receiver manufacturers this was a technology that needed to be taken seriously. In the first six months since DRM's launch at WRC03, broadcasts increased from 200 hours a day to 500 hours a day from more than 50 broadcasters.

At that time, none of the NASB members had DRM-ready transmitters or had the money to invest in RF exciters. The group decided to start by renting air time from another station to minimize investment, and began a series of weekly half-hour broadcasts in DRM last October called "The Voice of the NASB," a novel program because it's the first time NASB has produced a joint program — a different station produces the program each week.

Additionally, it's the first time we've done a broadcast in DRM. The program is broadcast each week in analog form to North America from WRMI in Miami, and in DRM from the VT Merlin transmission facility in Rampisham, U.K. beamed to Europe.

Why did we start by targeting Europe? Although there were no radios on the market yet, the DRM software radio project allowed more serious shortwave listeners to convert their receiver's IF filter output to 12 kHz, and decode the DRM signal on their PC with the DRM or Dream software to hear dozens of shortwave stations already broadcasting in DRM. The greatest number of software receivers had been sold in Europe, so it made sense to start there.

It's a real pleasure to listen to a shortwave transmission with no fading, static or interference.

The NASB programs are edited at Radio Miami and converted to an MP3 program, which is delivered by FTP to VT Merlin in the UK. So far, we have not been overwhelmed by reception reports from DRM listeners — nor did we expect to be. We've had a few dozen reports, mostly from Germany, but also from other countries in Europe, such as Portugal and Poland. But we have been amazed at the consistently high audio quality that the transmissions have achieved. Based on many recordings that these listeners have sent us, it was received in virtual FM mono quality.

It's a real pleasure to listen to a shortwave transmission with no fading, static or interference. This technology provides the possibility of "reviving" shortwave and medium wave, as well.

We are aware of shortwave listeners' concerns about DRM transmissions splashing over onto adjacent channels, but in the case of our NASB transmissions via VT Merlin, we have not had one report of our broadcasts interfering with any adjacent analog stations — or vice versa — in over seven months. We believe it comes down to good frequency planning, just like we have to do today with AM shortwave.

DRM is a win-win proposal for broadcasters. Our signal quality is improved and we will save money on our power bills. The DRM signal needs to be reduced 7 dB from analog equivalents to meet ITU protection ratios for adjacent stations. In other words, a 50-kilowatt analog shortwave station in the United States today would only need to use 10 kilowatts of average DRM power in order to achieve the same coverage area that it now has — producing enormous energy savings and offsetting the cost of a new DRM transmitter or exciter in the long run.

American hams and shortwave listeners have bought more DRM software receivers than any country besides Germany, indicating that there is a market for digital shortwave in the United States. After our successful broadcasts to Europe, the NASB is now shifting its block of DRM programs to this country.

We have begun weekly half-hour DRM transmission via the facilities of Radio Canada International in Sackville, New Brunswick each Saturday at 1700-1730 UTC on 11900 kHz. We join nine other broadcasters like the BBC, Deutsche Welle, Radio Netherlands and Vatican Radio in sending out DRM programs to North America. Others include China Radio International, TDP Radio from Belgium, Radio Sweden, Radio Kuwait and Radio Canada International, itself.

We were encouraged at the inaugural meeting of the USA DRM Group in Washington in May to hear Chairman of the DRM Commercial Committee Michel Penneroux say DRM receivers should be available in the marketplace for less than 200 euros by the end of 2004 or the beginning of 2005. If radios are available for accessible prices like this, DRM certainly will have a better chance of catching on among a great many shortwave listeners.

Mike Adams is the NASB Liaison to the DRM Consortium and can be reached at madams@febi.org. *Jeff White is the ex-president of the NASB and Chairman of the USA DRM Group, and can be reached at* jeff@wrmi.net.

Don't Take That Second Channel for Granted

Is there a battle percolating concerning radio's use of its spectrum?

Right now our industry is focused on the digital transition and reinventing the way we present commercials. But RW's attention was grabbed by a comment we overheard during a forum on Capitol Hill. A lobbyist mentioned in passing that technology may soon allow stations to multicast. It was the first time we've heard someone refer to "unused" radio spectrum capacity within existing channel allocations as "white space" on the dial.

The speaker, using language borrowed from the DTV debate, also referred to the HD Radio transition as a spectrum giveaway.

IBOC is anything but a giveaway; it is the opposite, making use of existing channels rather than new spectrum. That point really isn't debatable. But the remark about multicasting is indicative of a discussion that could play out when more licensees explore their audio and data options. We need to consider the arguments, because arguments there will be.

If a channel can be split, should you, the licensee, automatically be licensed to control all services on the channel? You might assume the answer is a certain yes. Others will not. Recent events like the indecency and ownership debates show that Americans are quite willing to challenge the broadcast industry's assumptions.

Some in radio have thought about this. Many have opposed multicasting, even from the early IBOC days, to avoid fragmenting our market and because it might open the door to this kind of "re-entitlement" discussion. As a result, much of the impetus for exploring multicast has come from public, not commercial, radio; NPR did a good job recently at marshaling GMs and board members to supply succinct comments in support of a second audio channel and what they would do with it.

Much of the pro-HD Radio discussion has focused on potential new services. But when new services are added, new ground rules may take effect.

We don't know if anyone will seriously suggest treating supplemental audio services as separately licensed signals to which others may be entitled access. But politics is a strange animal. Commercial or otherwise, we need to watch closely as the multicasting debate unfolds and be prepared to make the case for our use of the spectrum.

— RW

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