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Window or Chaos?

This spring we might see the first-ever 'window' to file for new FM licenses in the non-commercial educational band.

Page 46

Fall Radius

Why is your tower like a can of chicken soup?

Page 20



Radio World

\$2.50

The Newspaper for Radio Managers and Engineers

March 1, 2007

INSIDE

NEWS & ENGINEERING

▼ A conversation with Harris Broadcast President Tim Thorsteinson.

Page 16

▼ The vacuum tube turns 100.



Page 18

▼ American Shortwave: VOA in Palo Alto.

Page 24

GM JOURNAL

▼ Gentle legend Pierre Robert celebrates 25 years of rock.



Page 31

▼ John Lund on how to get the most out of your 'e-personality.'

Page 34

▼ The lessons of disastrous promotions.

Page 38

OPINION

▼ Dave Van Dyke says Wall Street doesn't 'get' consumers.

Page 44

Portable IBOC May Be on Its Way



A new prototype chip provides hope that portable HD Radio receivers will be on store shelves soon. Page 22

HD Radio Reaches Into The Automobile Cabin

Car Products Are Reaching Market; More Features Expected by Year-End

by Leslie Stimson

LAS VEGAS Look for advanced features on HD Radios as well as more units to choose from later this year.

That's the word from proponents who base their predictions on conversations with receiver and automakers, chip developers and retailers.

Eventually HD Radio will be offered as a standard feature in the dash, they say; but to bridge the gap until then, car

converters are coming to the market. Some use wired FM modulators to add HD-R to existing car stereo systems; others plug an aftermarket HD Radio tuner into the car radio's CD-changer input or the car's data bus, allowing the existing in-dash radio to control the tuner via a wired controller added to the dash.

Ibiquity President/CEO Robert Struble, noting many advanced application demos in the Ibiquity/Alliance booth

See RECEIVERS, page 3 ▶

RCS, Prophet Merger Takes Effect

The Latter's Name Is Fleeting in Union Involving Broadcast Software Companies

by Randy J. Stine

WHITE PLAINS, N.Y. Clear Channel Radio says its newly combined RCS and Prophet Systems divisions will focus on product development from combined resources while maintaining support for current products.

RCS is known for its Selector music scheduling program, Master Control audio management system and Media Monitors spot verification and research software. Prophet Systems produces the NexGen Digital Broadcasting platform and other broadcast products.

The merged company will retain the RCS name and be headquartered in White Plains, N.Y., but maintain some operations in Ogallala, Neb., where Prophet Systems operates. The move creates what the merged entity calls one of the broadcast industry's largest software companies, a claim RCS had made even before the

See MERGER, page 10 ▶

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NEWSWATCH

PPM Takes Step In Houston

NEW YORK Arbitron planned to meet with subscribers in Houston to discuss a schedule for commercializing Portable People Meter audience research system there. The Media Rating Council accredited the Arbitron PPM in that market in late January.

"Users of the new PPM radio ratings currency in Houston — monthly data based on average quarter hour radio ratings — can have confidence that the radio methodology, sampling systems

and survey processes that are the foundation of the PPM service have been independently and thoroughly audited and have met the standards of the MRC," Arbitron stated.

Clear Channel Awaits Buyout Vote

SAN ANTONIO Clear Channel set a deadline of March 21 for shareholders to vote on its buyout offer.

Analysts eyed the deal after the Wall Street Journal reported that the broadcaster's attempt to go private faces resistance

from its large institutional investors.

Subsequently, John Blackledge and Aaron Chew of J.P. Morgan Securities stated that the broadcaster planned a "road show" in an effort to garner shareholder support for the deal.

Clear Channel needs 66 percent of shareholder approval; the WSJ reported in late January that three of the top shareholders, who own about 16 percent of the company, were not in favor of the deal at the bid price of \$37.60 per share. "Also, generally about 10 percent to 15 percent of shareholders tend to not vote for deals, and under Texas law, failure to vote is a negative vote," wrote Blackledge and Chew.

ABU Promotes Shortwave Monitoring

KUALA LUMPUR, Malaysia The Asia-Pacific Broadcasting Union wants more members to join the Asian Monitoring Network. The goal is "to monitor collisions in frequency usage among shortwave broadcasters in a move which could save millions of dollars in wastage."

The ABUC hopes to build the network through its High Frequency Coordination Committee. Shortwave broadcasters in Germany, Iran and Turkey have installed the software, while others in Pakistan, India and China are interested, according to ABU. Broadcasters would need a radio receiver, schedule recording software and Internet access.

News Roundup

CPB-QUALIFIED stations have until March 30 to apply for a digital conversion grant. CPB allocated \$13 million to fund fiscal '06 digital radio conversions. In August, 85 stations were awarded a total of \$7.3 million. CPB is accepting applications to distribute the remaining approximately \$5 million.

FINED: The FCC fined Clear Channel's WFLZ(FM) in Tampa \$10,000 after finding it apparently liable for recording and airing a telephone call without proper notice. The call was to "Desperate Housewives" actress Nicolette Sheridan
See NEWSWATCH, page 12 ▶



THE TOOLS HAVE CHANGED...

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Index

NEWS	
HD Radio Reaches into the Automobile Cabin	1
RCS, Prophet Merger Takes Effect	1
NewsWatch	2
This Is Where We Communicate Stuff	4
Is HD Radio Dead on Arrival?	8
FEATURES	
Workbench: Troubleshoot Without Blowing Your Fuse	14
Thorsteinson: I'm a Fan of Getting Things Done	16
The Vacuum Tube Celebrates 100 Years	18
Soup and the Fall Radius of Towers	20
Portable IBOC May Be on Its Way	22
Who's Buying What	23
Voice of America: Palo Alto in California	24
Digital News	25
Get to Know Coax Snake Cable	26
People News	27
Familiar Towers Fall at Last	28
GM JOURNAL	
WMMR's Pierre Robert: 25 Years of Rock	31
Get the Most Out of the E-Personality	34
Ownership: How to Get the Dough	35
The Play's the Thing for Kids on WVUD	36
Contests, Stunts and Tragedy	38
Lift an Ordinary Campaign to a New Level	39
OPINION	
Wall Street Doesn't 'Get' Consumers	44
'Perfect Storm' Stalled Minority Ownership	45
Reader's Forum	44-46
Window or Chaos?	46

Receivers

► Continued from page 1
at this winter's Consumer Electronics Show, said consumers may see features such as electronic program guides in some HD Radios by the end of the year.

HD Radio was featured in 20 booths at CES, quite a change from the technology's introduction at this show in 2004.

Demos showed store and replay, electronic program guide and conditional

Highlights of the CES show including these HD Radio news items:

ALLIANCE ADS CHANGING IN '07

Alliance President/CEO Peter Ferrara said awareness of HD Radio is up dramatically. Last year at CES, he said he had to seek people out to talk about HD Radio; this year, manufacturers and retailers came to him, saying they'd heard the ads and asking how to get involved in the promotion effort.

single-station operators. "We're looking to improve transmission technology to make it more affordable."

Stations were broadcasting in 68 metro areas in January; the number was expected to grow to 85 in February and to the top 100 markets by May.

HD-R CHIPS GETTING SMALLER FOR VARIED DEVICES

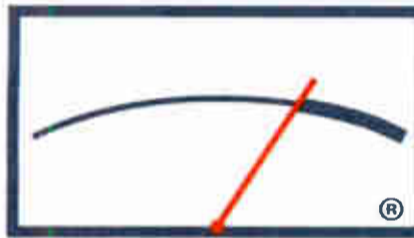
Chip development to reduce the size and power consumption for HD Radio is underway. Proponents expect to see the



'George' from Chestnut Hill Sound is the company's first radio. An HD-R module for the unit is due out later this year.



The Visteon HD Jump converts an auto radio into an HD Radio. The product docks into a cradle in the car or at home.



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access capabilities in the Ibiqity/Alliance booth. A large shelf system displayed numerous home HD-R receivers coming onto the market this year. A Jaguar and a BMW were equipped with in-dash HD Radios.

HD products were available at the end of 2006 from Accurian (a RadioShack brand), Alpine, Audio Design Associates, Boston Acoustics, Cambridge SoundWorks, Directed Electronics, JVC, Kenwood, Polk, Sangean and Sanyo.

This year, offerings are planned from DaySequerra, Denon, Dice Electronics, Integra, Niles Audio, Radiosophy, Rotel, Visteon and others.

HD-R products are available from more retailers and prices are dropping. At CES 2006, the big news was that the first table radio that would be available a few months later. That unit, the Boston Acoustics Receptor HD, retailed at \$499. Today it lists for \$249 and an increasing number of HD Radio receivers for the car and home are available for \$199 or less.

Now about 40 HD-R products are available. Those include tabletop radios, shelf systems, A/V receivers, stand-alone home tuners, after-market car CD players with built-in HD Radio and stand-alone car tuners that plug into specific brands of after-market CD players.

The alliance has tweaked some ads to reduce consumer confusion, Struble said. The ads now specifically tell listeners a new radio is necessary to get the benefit of the new stations and digital sound.

Alliance ads will promote more individual retailers and radio options, Ferrara said, to reflect growing availability of HD-R products for the home and car, particularly car converters.

"HD-R has gone from a few products to several. I don't want this to be a niche product anymore," he told Radio World. "It's now ready to be a mass product."

Ads promoting BMW's radio were planned for airing beginning in February; the automaker announced it is carrying HD Radios as in-dash options across its 2007 product line.

LOWER CONVERSION COSTS FOR SMALL MARKETS?

Ibiqity and the alliance are pursuing ways to win over more medium- and small-market broadcasters to HD Radio, Ferrara and Struble told Radio World.

Struble said to expect announcements soon about incentives for small-market broadcasters.

Ferrara said discussions are underway about bringing down equipment costs for

advanced chips ready for receiver and other device makers late this year. That means these chips would be in products in 2008, said Struble.

HD Radio proponents are "aggressively pursuing interfaces with radio, iPods, iTunes and Zune" to name a few, Ferrara said.

Mike Starling, NPR vice president, chief technical officer and executive director of NPR Labs, singled out the SiPort module as an interesting HD-R product notable for its low power consumption. NPR held good talks with receiver manufacturers, he said, and several manufacturers offered peeks of other product launches to come.

SiPort is developing an IBOC/DAB/DMB chipset to receive terrestrial digital radio and television broadcast on mobile devices. See related story, page 22.

'GEORGE' COMBINES IPOD, HD-R

Soon you'll be able to listen to Jack or Bob in digital on your George.

Chestnut Hill Sound Inc., a new company, has produced its first radio. It is billed by its creators as possibly the first digital radio to combine an iPod music playback system, wireless remote.

See RECEIVERS, page 5 ►

28,773 products in stock at press time!

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'This Is Where We Communicate Stuff'

The images shown are from a new intranet site created by Cumulus Broadcasting for the use of its technical staff.

The company has 67 markets with at least one engineer in each, not counting corporate engineers and Webmasters. Gary Kline, VP of engineering and IT, has wanted something like this for a couple of years. He would watch his people at conventions and noticed something: Yes, they learned; they looked at products; they heard seminar presentations. But what they *really* loved was talking with fellow engineers about solutions and problems.

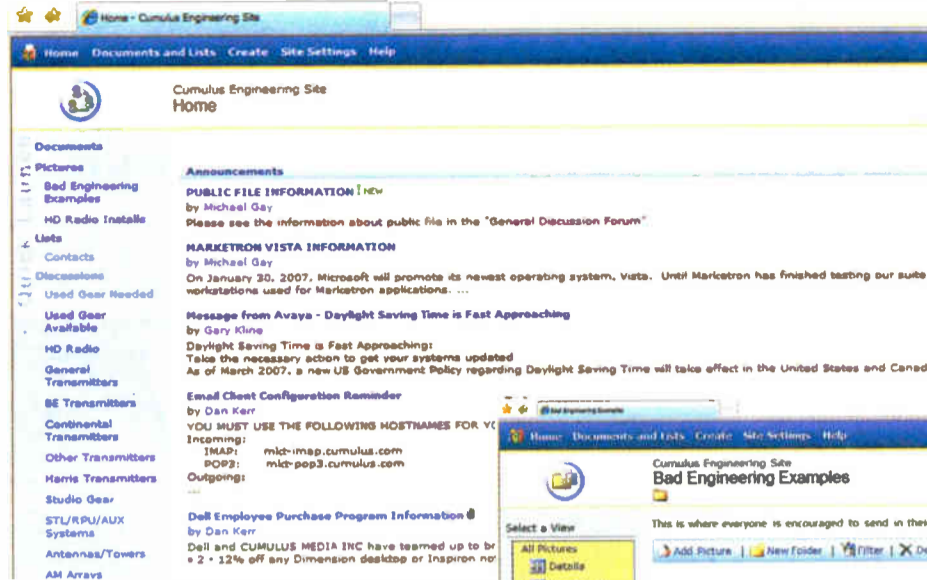
Cumulus at one time had operated a newsgroup for the exchange of technical information, but it faded from use before the company moved to Atlanta. Kline decided recently that a new private site would be a great way to replicate the convention experience and give staff a place to share audio and video files, documents, thoughts and questions. The site includes information on facility projects, lists of used or spare equipment and tips about particular models or vendors.

'A mini NAB'

This is, of course, not a revolutionary concept; but I like that Kline continues to search for ways to help his staff do their jobs and have some fun at the same time. I also like that he calls me to tell me about it. When it comes to "talking up" the engineering department, Gary gets it.

He told me the goal of the site is not to supplant online listservs or trade publications but to provide an environment specific to Cumulus. This takes a load off corporate engineering, which sometimes must answer repetitive e-mail and phone questions; and it might make a new employee feel more comfortable about asking a question without inviting the lengthy and heated diatribes that sometimes erupt on public lists.

Kline rattles off examples of possible topics: "Were there any outages yesterday? What are the new policies? Does our traffic system support Microsoft Vista? What is Cumulus policy on that?"



Cumulus Engineering home page.

Are we or are we not taking down e-mail tomorrow night for maintenance? Are we or are we not renewing McAfee (antivirus software), and what are the new codes? What's the internal company phone list?"

Users can instruct the system to e-mail them when a particular type of audio processor is listed by a Cumulus employee as available. There are discussion boards, photo pages and document libraries, IT resources and links to favored vendors.

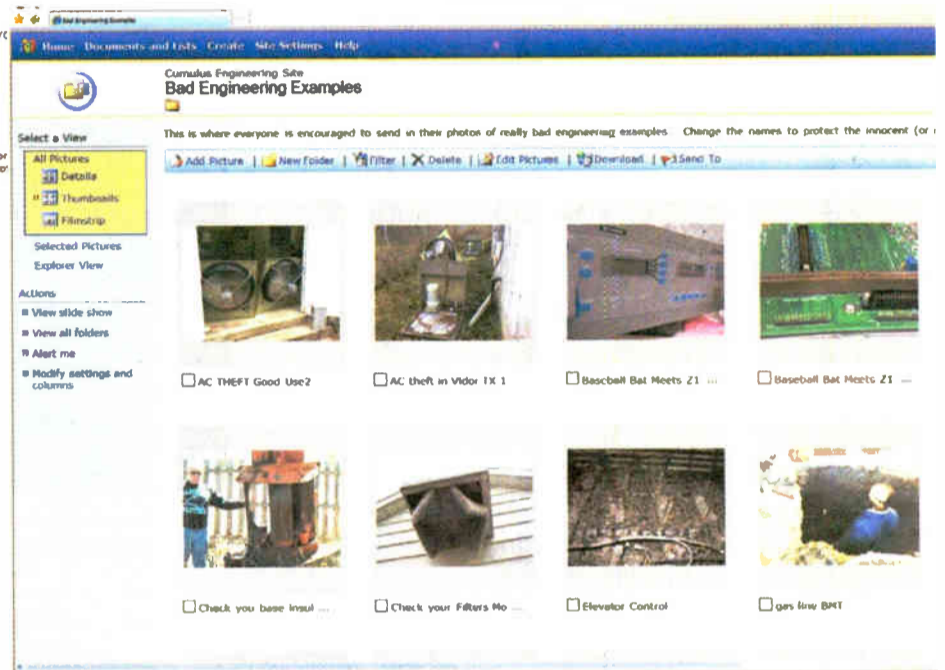
"We have a section with contacts for every engineer in the company. We have passwords for every vendor. What is our Dell account number so we can get employee pricing? What's our latest Sarbanes or IT policy, where do I find that PDF? These are not the things you find in publications."

It's hard to put a cost tag on this project. Cumulus was able to repurpose a server, and it already has powerful Internet access and a data center equipped with UPS and security. It is using Microsoft SharePoint software to create its intranet; Kline says corporate managers like SharePoint enough to use it to manage internal sales training as well.

From the Editor



Paul J. McLane



Bad engineering examples

The system allows various levels of access. In some areas, only certain users can add or delete content; in others, any member can post. The system also ties into the Microsoft Active Directory that Cumulus uses to handle e-mail and music scheduling. The site server is in Cumulus' data center in downtown Atlanta along with many of the group's other servers.

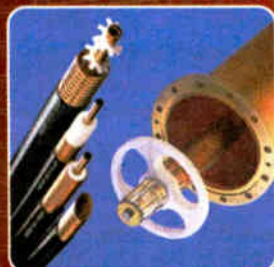
One page is just for photos of HD Radio installations, another shares photos from conventions. With his usual impishness — this, after all, is a boss who treat-

ed engineers to a "day of beauty" during NAB a year or two ago — Kline also invites photos of bad transmitter facilities and engineering "worst nightmares."

And he's thinking of asking his engineers to dig up their old air checks. Many were on the air at one time or another, so he would like to do an "American Idol" thing and have corporate PDs vote for the "best on-air engineer."

Response to the site has been very good since it went live in December, Kline said. "It's like a mini week at the NAB, but it goes every week of the year." 🌐

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Receivers

► Continued from page 3

AM/FM radio, alarm system and HD Radio in one product.

The George radio itself is available now; an HD Radio module is to be available in the second half of the year.

The unit features a removable front panel that serves as a remote for iPod, radio and alarm clock functions. To use the radio, consumers insert their iPod into the built-in dock, which downloads all the iPod meta data.

The wireless remote supports iPod navigation, including "jump buttons" to navigate a personal music database quickly.

Bandless tuning allows AM/FM radio allows users to organize stations based on genre.

The charge for the wireless remote lasts four to six hours; it can be recharged on the front panel or in an optional charging stand.

The George has a rear USB port for future hardware and software upgrades and a line-in jack to accommodate devices CD players and MP3 players. It includes a pre-amp jack out to support the installed base of larger A/V systems.

The standard finish is white; other wood finishes are available. Customers can install them using the included Phillips screwdriver.

George is available online at www.chill-sound.com and later this year at retailers. Price is \$549, or \$599 with a remote charging stand.

VISTEON JUMP AVAILABLE NOW

Visteon unveiled its transportable HD Radio receiver, the HD Jump. The unit converts most models of auto radios into HD Radios.

In a press conference, HD Digital Radio Alliance President/CEO Peter Ferrara said, "We need this. Jump is the perfect product at the perfect time."

The product docks into a cradle in the car or at home. The cradle's aux jack allows users to plug in an MP3 player and hear its contents through a vehicle's sound system.

Visteon says the dockability feature is unique and differentiates the product from other HD-R car converters coming on the market.

'JUMP' ON DESIGN FAST-TRACK

Visteon went from design to working prototype in eight weeks. Two key considerations were getting the right industrial design and taking advantage of multicasting, said Jonathan Weisberg, director of mobile electronics for the North American Aftermarket for Visteon.

The Jump can be connected to the existing head unit in two ways. "If there's an aux input in the head unit, we have a line out of the cradle that goes into the head unit. If there's no aux input, we have a (wired) FM modulator in there," said Weisberg.

No special antenna is needed; the installer or the consumer would reroute the vehicle's antenna into the head unit, into the Jump and then back out of the Jump and through the head unit.

Jump was expected to be available at auto dealerships by early February and list for \$249, Visteon executives said. Weisberg said demonstrations to con-

sumers in car dealerships would be done by salespeople comparing an HD-R station to analog, and going back and forth between the two with the Jump in digital, FM modulated and analog modes.

Visteon shipped Jump samples to some station engineers and asked for feedback before introducing it.

DELPHI DISPLAYS HD-R STORE & REPLAY

Delphi, the other big radio supplier to auto OEMs, displayed three configurations of HD Radios for different vehicles. Delphi has been offering HD Radios to automaker customers since 2005.

It had a store-and-replay demo in an actual end-unit; the Ibiqity demo was on



Directed promoted its HD Car Connect in this 2007 GMC Yukon XL. Amps, speakers and subwoofers are shown in the tricked-out SUV.

a development platform.

Asked if the introduction of multicasting channels was a challenge, Matthew Yarosz, electrical design project engineer, said, "There was a little bit of a user-interface effort" because each automaker has preferences for how they want the HD-R feature displayed.

EMERSON LICENSES IBIQUITY RECEIVER IP

Emerson Radio Corp. anticipates bringing its HD Radio receivers to market this year. It recently signed a technology license with Ibiqity Digital to produce and sell HD Radio digital audio receivers to the North American market.

Last year, Emerson sold 5.8 million electronic products that featured radio receivers.

GRIFFIN SHARK TO ADAPT TO HD-R

Griffin Technology announced radio Shark HD, a digital tabletop radio for Mac and PC with HD Radio technology. The radio Shark HD is an update to Griffin's radio Shark and radio Shark 2; it will house a radio tuner in a "shark fin" that connects to the USB port of a Mac or PC.

The radio Shark HD will allow users to pause live radio and to schedule recordings of digital radio programming, similar to a DVR. It will identify radio stations and individual songs broadcast in digital format, and allow users to review and playback music recorded from digital radio on a personal computer, sync recordings of digital radio programming to an iPod, and purchase songs heard on digital radio from Apple's iTunes Store.

The Griffin system will work with personal computers running Mac OS X, Windows XP or Windows Vista. The



Delphi displayed configurations of HD Radios for three different vehicles.

company expects it to be available in summer. Pricing has not yet been set.

TI: COMBINED DIGITAL RADIO CHIPS ARE HERE

Officials at Texas Instruments, which makes chips for HD-R, Eureka-147, Digital Radio Mondiale and satellite radio, expressed excitement about HD Radio testing in Europe and planned tests in Canada.

John Gardner, digital radio marketing manager, said in an interview that HD-R would have to overcome channel spacing
See RECEIVERS, page 6 ►

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Receivers

► Continued from page 5
differences between the United States and Europe before it can take off there.

Asked about the timing of a hypothetical digital radio that incorporates all the technologies mentioned above, Gardner said it's already begun to happen. The DRM radio uses the TI RS500 module, which can handle DRM, DAB and FM on one chip.

DICE SHIPPING VEHICLE-SPECIFIC HD-R ADAPTER

Dice Electronics says it has the first vehicle-specific HD Radio receiver for

OEM radios. In the fall it began shipping the HD Dice HD Radio adapter, which works with most factory radios.

Vehicle-specific connectors are provided to shorten installation time; an HD Radio specific antenna is included.

The unit plugs into the CD changer control port or the satellite radio port of the radio and displays HD Radio and multicast station and metadata on the car radio. Other features are an iPod connection port and an aux input for additional devices, such as a DVD player.

Mark Kovacs, head of the Dice Design Department, said the tuner works with some models from BMW, Toyota, Scion, Buick, Cadillac, Chevrolet, GMC, Lexus and Volkswagen. GM, Acura and Honda models are to be added in Q1. Suggested retail is \$199.

SANGEAN ADDS RACK MOUNTS FOR HDT-1

Sangean has a tabletop HD Radio and home tuner on the market. The HDR-1 tabletop retails for \$249 and the HDT-1 set top box for \$199. Stations have been buying the tuners to place in their equipment racks and optimize their signal, said Clayton Scott, sales and marketing manager for Sangean.

"We're developing rack mounts so they can affix the tuner (to the rack) instead of having to get a shelf," he said. The rack mounts would probably be available in the first quarter, he said.

Sangean started shipping the tuner in December. It sent out 10,000 units that month and is shipping several hundred units a week, according to Scott.

JENSEN: NINE MEDIA IN ONE RECEIVER

"If it's too loud, you're too old." That's what Jensen states in its ad for the VM9512, a DVD-MP3-WMA-AAC multimedia in-dash receiver. The unit is HD Radio- and satellite-ready (with the addition of the appropriate additional tuners or converters) and is compatible with iPod, RDS, USB, SD and Bluetooth.

It has 240 watts peak power and a 7-inch swivel LCD touch screen. The MediaPlex head-unit core offers digital signal processing, improved disc playback, cooler operation and faster switching between sources, the company said.

The Jensen VM9512 ships March 15 with a list price of \$699.

TERK SHOWS INDOOR, OUTDOOR HD-R ANTENNAS

Terk by Audiovox introduced two HD Radio products, which the company is calling "high definition."

The HDR-o is described as an outdoor amplified high-definition radio antenna to capture AM and FM HD Radio broadcasts. It features high-gain design and band separation with mast and wall mount options included. Suggested list price is just under \$130.

The company said its HDR-i indoor antenna includes proprietary AM loop technology for minimal interference and a low-noise amplifier design. The suggested retail price is just under \$50.

BMW EXPANDS HD-R OPTIONS

BMW is expanding its HD Radio offerings across its entire vehicle line, and says it is the first automaker to do so. The HD Radio option will list for \$500.

BMW HD Radios are now multicast-capable and the automaker is featuring HD-R as an option this spring on 2007 Series 3, 5, 6 and 7 models, as well as X3, X5 and Z4.

In the fall of 2005, the company announced OEM availability of HD Radio technology in its 2006 Series 7 and 6 models. In June 2006, the company announced that HD Radio receivers would be offered in its 2007 Series 5 models and last month it announced what it says is the first factory-installed multicast capable HD Radio in the new 3 Series convertible.

ROUNDUP

AXXESS: Users can upgrade a factory head unit to an HD Radio receiver with the Axxess Digital Interface. Designed to work with a factory-installed automotive radio, the product consists of a universal HD Radio tuner box and an interface specific for each vehicle class. It connects to an OEM radio through the CD changer or the satellite radio port.

Axxess is a Metra Electronics brand. The unit was expected to be available Feb. 15 and list for \$199.

DIRECTED ELECTRONICS shipped an add-on HD-R receiver in December at a suggested \$249.

PERIPHERAL expected to ship an HD Radio car adapter in the first quarter. The HDR2Car is an AM/FM HD Radio tuner that connects through the satellite radio port while retaining the satellite radio function. It will list for \$199.



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"Our Logitek installation included a Mosaic digital console in the WFLS studio. It was amazingly simple to install and all of our jocks loved it right away."

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<http://remotebroadcasts.blogspot.com>

➔ Radio Free Asia—Live from the Himalayas



"The results [with ACCESS] were especially reliable considering that Dharamsala has one of most "problematic" Internet infrastructures that we have come across." — David Baden, Chief Technology Officer Radio Free Asia

For the complete story visit
<http://remotebroadcasts.blogspot.com>

➔ Ski Mountain Remote



This picture, really demonstrates what ACCESS is about. This product truly has the ability to cut the wires.

For the complete story visit
<http://remotebroadcasts.blogspot.com>

➔ JAMN 94.5—Walk for Hunger



"ACCESS was used on the air exclusively for JAMN945 at this one. It was all over EVDO with a tremendous amount of active cell phones in the area. The ACCESS was connected to the Verizon wireless Broadband...

For the complete story visit
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GUEST COMMENTARY

Is HD Radio Dead on Arrival?

A Thousand Stations Would Be Impressive — If There Were 1,000 Receivers Out There

by **Holland Cooke**

The author is news/talk specialist for McVay Media.

Atop the HD Radio booth at the recent Consumer Electronics Show, great big letters crowded "Fresh Content Free," an appropriate message for this particular B-to-B audience, since "Free" differentiates HD Radio from Sirius and XM services which are already darlings of the leading-edge CE industry.

But for the second consecutive Christmas, Santa wasn't loading HD Radios onto his sleigh, because, as an industry, we still haven't convinced Homer and Marge Listener that they should replace their AM/FM receivers with pricey upgrades. No matter how much we push HD-R, the marketplace isn't pulling it.

And with all those iPods — 70+ million sold *before* Christmas '06 — the sleigh was pretty full anyway. Why iPod instead of HD Radio? Control. Listeners want it and they think radio is out-of-it.

HD-R will still need the back-end buzz that made iPod such an icon.

Run — do not walk — to the bookstore, or hit Amazon, and get a copy of "The Perfect Thing: How the iPod Shuffles Commerce, Culture, and Coolness," by Newsweek tech columnist Steven Levy (Simon & Schuster). I read my copy on the plane to Vegas for CES; and it framed everything I saw and heard there.

Now, 'Most Music' loses

Playing "the most music" has been so axiomatic to music radio stations, for so long, that it was a common jingle lyric in the '60s on many of what are today's news/talk stations. AMs dropped music when FM receivers proliferated; and music FM had a pretty good run; until iPod, satellite radio and other new-tech began chip-chip-chipping-away-at radio as a music delivery system.

Walk down any city street, through any mall or Amtrak car or down the aisle in an airplane, and you feel like you're in an iPod commercial. No matter how few commercials an FM plays, iPod and those thousand-song phones on display at CES play fewer.

And *all* the songs those phones and iPod play are listeners' favorites. That's progress, and radio shouldn't take it personally. Downloads have obsoleted CDs.

If you're a music station, that song you're playing ... right now? You own it even less than a Sean Hannity affiliate owns Sean. That song, and Sean, are also on satellite radio anyway.

How about Rush Limbaugh? Like music, Rush is also on iPod ... and streaming ... and using affiliates' air to lure listeners away from real-time radio listening, since his DittoCam audio is asynchronous to what's coming out of the speaker of all those dutiful EIB Network affiliates.

Whether there will still be music radio stations in five or 10 years remains to be seen. Fellow consultants who specialize in music radio tell me of the importance they are attaching to what their client stations do between the songs.

Meanwhile, in the talk arena where I make a living, too many stations are talking about the same thing, day after day after day. Many hosts have fundamentally overestimated listeners' interest in national politics.

The relentless way many in radio ape the "I'm-right-and-you're-wrong-and-that-makes-you-bad" Fox News Channel style plays against human nature, let alone

Arbitron methodology. And we wonder why folks won't pony up several hundred bucks per, to replace all their radios, and hear radio business-as-usual in crisper fidelity?

Applause for the clever HD Radio promos I hear in my travels. HD Radio Alliance spots tell of "Hidden Radio Stations" these new receivers can hear. That's cool. And "More Variety, Better Sound Quality, No Subscription Fees" are the kind of benefit statements more stations' promo copy should articulate.

But we still haven't made the sale for HD.

HD Radio: What is it?

Research already demonstrates that many listeners confuse HD Radio with satellite radio. Several retail sales people in stores I visited during the holiday shopping frenzy didn't get it straight.

In a thoughtful presentation at the NAB Radio Show in Dallas, Mercury Research President Mark Ramsey observed, "People don't buy radios. They buy things that contain radios," like cars and alarm clocks.

So it's smart for HD Radio Powers That Be to lobby Detroit (and Toyota) accordingly. But business won't pick up at Radio Shack until:

- We give the HD-R message more of what we preach to our advertisers: reach and frequency. Rome wasn't built in a day. But even if we make the HD-R message as cool and ubiquitous as the iPod silhouetted dancers ...

- HD-R will still need the back-end buzz that made iPod such an icon. Admittedly, we're early in side channel programming R&D. But to date, HD-R programming initiatives do not yet offer a



Holland Cooke

sure-thing programming benefit bewildered listeners will "get."

Don't get me wrong. I'd love a classical channel. Many markets don't have a classical FM. I'd love a reggae channel. I don't know of any market with a reggae FM. Heck, if main-channel FM programming included these two formats, and fewer researched-to-death sound-alike formats, radio's time spent listening would probably be healthier.

Here's the business model problem built into HD Radio R&D now underway: It's a losing numbers game, worse than UHF TV in the early 1950s.

The big headline recently has been "1,000 stations now broadcasting in HD." The "Saturday Night Live" style sub-headline would've read, "Next goal: 1,000 receivers in use." Now matter how compelling that side channel programming is, it's a tree falling in the woods.

Unless, possibly, we apply economy of scale. So along comes an alliance, to package niche formats that can feed side channels across the U.S. That'll help, since:

- On the expense side, individual stations won't have to produce side channel programming; and
- On the revenue side, national exposure can aggregate enough listeners to create a sales asset.

But stop the tape. Isn't this how radio got into its present programming predicament? An alliance of the same titans who automated-syndicated-homogenized-delocalized-voice-tracked main channel programming is now going to carve up this new side channel spectrum too? And any national commercial inventory created will undo HD Radio's response to commercial-free iPod and satellite radio music channels.

This isn't sexy, but ...

I continue to suggest that HD Radio side channels are a delivery system, and I recommend simulcasting established news/talk/sports AMs on sister FM's side channels. Heck, there's a business case to be made for simulcasting on sister FM's main channels.

But that's a separate conversation.

Making the AM's programming available on the HD side channel would convey a benefit listeners understand. It takes the AM station content and advertiser places they otherwise won't go, since many FM's footprints are bigger than sister AMs. And to the many listeners who just don't push the AM button, suddenly the AM station isn't your father's Oldsmobile. Now it's on the hip new gadget.

Haven't got a news/talk/sports station? If your multi-FM cluster isn't ready to relinquish a music format, go news/talk/sports on HD2. Rather than suffering the syndication model, take it out for a spin.

In many markets, there is so much available, good, free network long-form

talk programming that you can cobble together an on-air roster that offers listeners new options and dilutes and distracts incumbent talk competitors.

A third option? In consultant fashion, I'll invoke Sun Tzu and Carl von Clausewitz: Attack yourself! Take a page from television's playbook.

In many markets, TV stations are using their HD side channels, and second cable channels negotiated for retransmission consent, to do all-weather-all-the-time channels. They trump cable's The Weather Channel, because it's all-local-all-the-time.

This instant-gratification weather channel doesn't detract from its main channel; it extends it. On the main channel, Oprah; on the side channel, your Storm Tracker forecast, instantly.

Imagine radio's version, The Six Minute Format, a loop such as the following, which caters to busy people in-car:

1. Produced 10-second branding, traffic sponsor billboard
2. Traffic report
3. Tease sportscast into spot
4. Traffic sponsor's spot
5. Produced 10-second branding, weather sponsor billboard
6. Weather forecast
7. Tease traffic into spot
8. Weather sponsor's spot
9. Produced 10-second branding, sports sponsor billboard
10. Sportscast
11. Tease weather into spot for sports sponsor.

If you're the garden-variety Rush-and-baseball AM, this will give your listeners two ways to use you during Rush and baseball. If you're the music FM, this will give the Rush-and-baseball AM fits.

Dress rehearsal

Want to see and hear something really cool? Hit grafittiradio.com, the site for WSTW(FM)'s HD side channel. It's a music format for radio's lost generation, young people, something otherwise unavailable on-air in WSTW's home market, Wilmington, Del. ... or other markets where the company owns stations.

Or you can — as smart stations' Internet promos say — "Listen online, at work or at home."

Or you can listen on any of the acres of wireless devices on display at CES. If you're in any of 300 U.S. cities already lit up or soon to turn on WiMax, it'll be no less available to mobile users than FCC-licensed stations.

With WiMax, anyone with files on a server is tantamount to a radio or TV station. Before you scoff that listeners prefer professionally produced content, know this: CNN.com delivers 50 million downloads a month. YouTube will deliver 100 million *today*.

What is astonishingly clear to a radio person at CES is how opportune, not threatening, new tech is. Let's harness the potential of HD-R by avoiding radio business-as-usual on HD2.

Years ago, there was a CES booth touting AM stereo. Doing business-unusual on HD2 can beget new content plays for main channels and Internet distribution, should HD-R go the way of AM stereo.

The author's Web site is HollandCooke.com. This article is © Holland Cooke 2007.

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Merger

► Continued from page 1
merger with Prophet Systems.

The move gives Clear Channel a single in-house broadcast technology division "able to provide a greater scope of products and services collectively," said Clear Channel Radio Chief Financial Officer Jerry Kerstling.

RCS President/CEO Philippe Generali will oversee the merged company and be based in White Plains.

Approximately 10 employees between the two companies were let go as a result of job duplication, Generali said. That includes RCS Vice President of Sales for the Americas Richard Darr, Public Relations Director Tom Zarecki and Director/Industry Affairs Michael Dalfanzo. The new division has 400 employees.

According to a company spokesman, RCS has 100 employees at its White Plains headquarters and approximately 65 in Ogallala. The company has employees in 23 different countries.

'Ongoing idea'

Generali declined to discuss the specific timing of the merger; it happened within months of Clear Channel Communications announcing its intentions of going private. He said only that Clear Channel management had studied the companies for months before making the final decision and announcing it in January.

"We've been carefully planning this merger. It's been an ongoing idea. When



The merged RCS-Prophet will retain the RCS name; it will be headquartered in White Plains, N.Y.

someone purchases an entity, you look for synergies along with the strengths. I think that is applied when any company is bought or sold," Generali said.

Clear Channel purchased RCS in early 2006 for an undisclosed price, with RCS founder Andrew Economos remaining as a consultant. Clear Channel purchased Prophet Systems in 1998.

Generali believes by combining resources the company can take advantage of a "larger pool of resources" and be able to "better control the allocation" of those resources for product development.

"We are already working on a new gen-

eration of products that take the best of RCS and Prophet Systems," Generali said.

Generali said much of the new company's R&D would take place in Nebraska, under the direction of former Prophet Systems' Co-President Chip Jellison, who will oversee technology and development for the new RCS.

"NexGen is really the cornerstone of digital automation in this country and number one in market share. We will look to expand that dominance while developing next-generation products and new broadcast software," Generali said.

Asked to quantify its market penetra-

tion, he said NexGen is in more than 2,000 radio stations, networks, Internet and satellite radio companies. Many are used in Clear Channel stations.

'Little change' for customers

"We looked at opportunities to reduce duplications and redundancy to be able to serve our customers more efficiently," Generali said.

Customers of RCS and Prophet Systems will see little change in how they receive customer support and purchase products, Generali said. RCS also named Neal Perchuk vice president of sales for the United States while restructuring its sales and marketing departments.

Although RCS will have one booth showcasing both Prophet Systems and RCS products at NAB2007 in April, the Prophet name eventually will disappear from the product line, according to Generali.

Other radio equipment suppliers contacted by RW said the merger was "just a business move" meant to increase efficiencies.

"I would have been surprised if this had not happened," said Neil Glassman, vice president of strategic marketing for Broadcast Electronics Inc. "I don't believe from a user perspective that the consolidation changes anything."

Glassman said the combo of RCS and Prophet Systems doesn't necessarily make them more formidable in the marketplace. "However, both RCS and Prophet were good companies with good products. We like competition; it makes us all better at what we do and the users benefit."

See MERGER, page 12 ►

AM HD TRIPLEXED DIRECTIONAL ANTENNA SYSTEM

BOSTON, MA

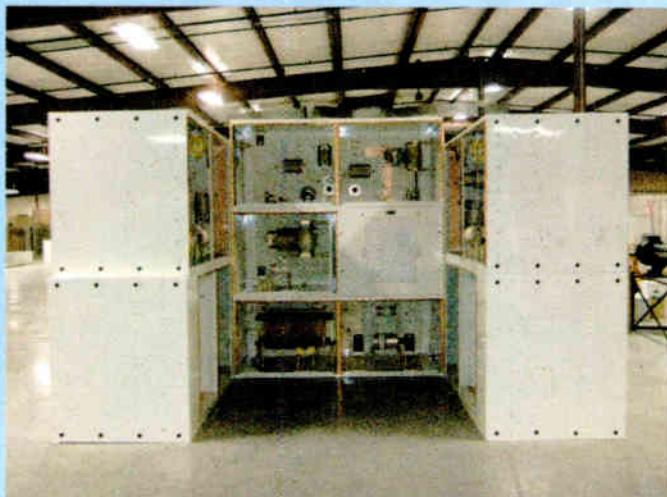
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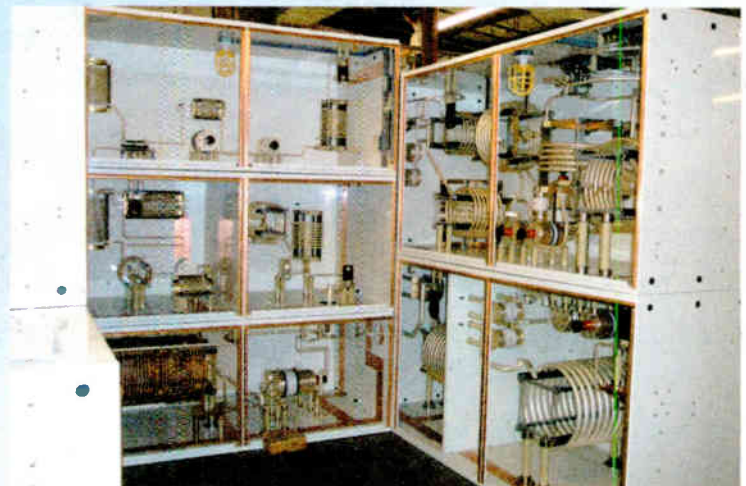
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Newswatch

► Continued from page 2

about the controversy surrounding her appearance in a promo preceding an NFL game. Someone filed a complaint about the WFLZ call.

ARBITRON AND NIELSEN signed an agreement aimed at completing development and testing of Project Apollo, which uses Arbitron PPM and ACNielsen Homescan technology to understand how exposure to ads affects shopping behavior. The deal covers expansion of the pilot panel to a national service "if the test results meet expectations and generate marketplace support."

AIR AMERICA RADIO reached tentative agreement to be acquired by Stephen L. Green, the New York Times reported. Green is chairman of a real estate investment trust; the paper said he has been providing interim financing to help the network meet costs. Meanwhile, Al Franken planned to leave Feb. 14; he was reportedly considering a campaign for a Senate seat.

THIEVES STRIPPED a portion of the ground system for its copper at KNWQ (AM) in North Cathedral City, Calif., near Palm Springs. The CGC Communicator quoted Morris Communications Director of Engineering Jay White saying the company was considering armed patrols at its local sites as well as other measures.

Separately, Barry O'Connor of KPSI

(AM) in Palm Springs told the newsletter all the copper at his four-tower transmitter plant disappeared just prior to the KNWQ incident. "At KPSI, it looked as if a vacuum cleaner with copper affinity had gone through the array," CGC wrote.

KEN MILLS, head of the Ken Mills Agency working with public radio stations and program producers, published the "2007 KMA Public & Noncommercial Radio Station Directory." It includes information on all four types of noncoms: public, community, college and religious. The result is information about 1,158 noncommercial radio stations, with dial guides for 249 U.S. markets, including contacts (such as engineers, in many cases), financial data and HD Radio status.

Read more at: kenmillsagency.com.

A WRONGFUL death lawsuit was filed in the death of Jennifer Strange, who died hours after a water-drinking contest at an Entercom's KDND(FM), the Sacramento Bee reported. She participated in a "Hold your wee for a Wii" contest, "drinking what one contestant said was nearly two gallons of water" in the station's kitchen, the Bee reported.

DEADLINES to file comments on the effects of communication towers on migratory birds have been extended 90 days. The new deadlines (Wireless Bureau Docket 03-187) are April 23 for comments and May 23 for replies. Various interests involved in the debate have been negotiating and asked the commission for the extension. The American Bird Conservancy, CTIA — The Wireless Association, Defenders of Wildlife, Environmental Defense, NAB, National Audubon Society, the National Association of Tower Erectors and PCIA — The Wireless Infrastructure Association combined their requests for extra time.

HARRIS said broadcast revenue in its second quarter was \$155 million, up 14 percent from the period last year. Radio transmission systems revenue was higher, led by shipments of HD Radio systems. The company said revenue also benefited from the 2006 acquisitions of Leitch Technology, Aastra Digital Video and Optimal Solutions. Sequentially, revenue increased 11 percent from the first quarter. But Harris also cited weakness in TV transmission systems and said it plans cuts there.

TELCOS that are exploring IPTV and broadband video are the target of a new conference series and exhibition that will be part of the spring NAB show. Telecom@NAB2007 is co-produced by telecom consultants Lightbulb Communications.

AMERICAN MEDIA SERVICES named Reed Bunzel president of AMS-I, a new Internet division that will provide radio broadcasters expertise to develop audio programming on their Internet radio sites.

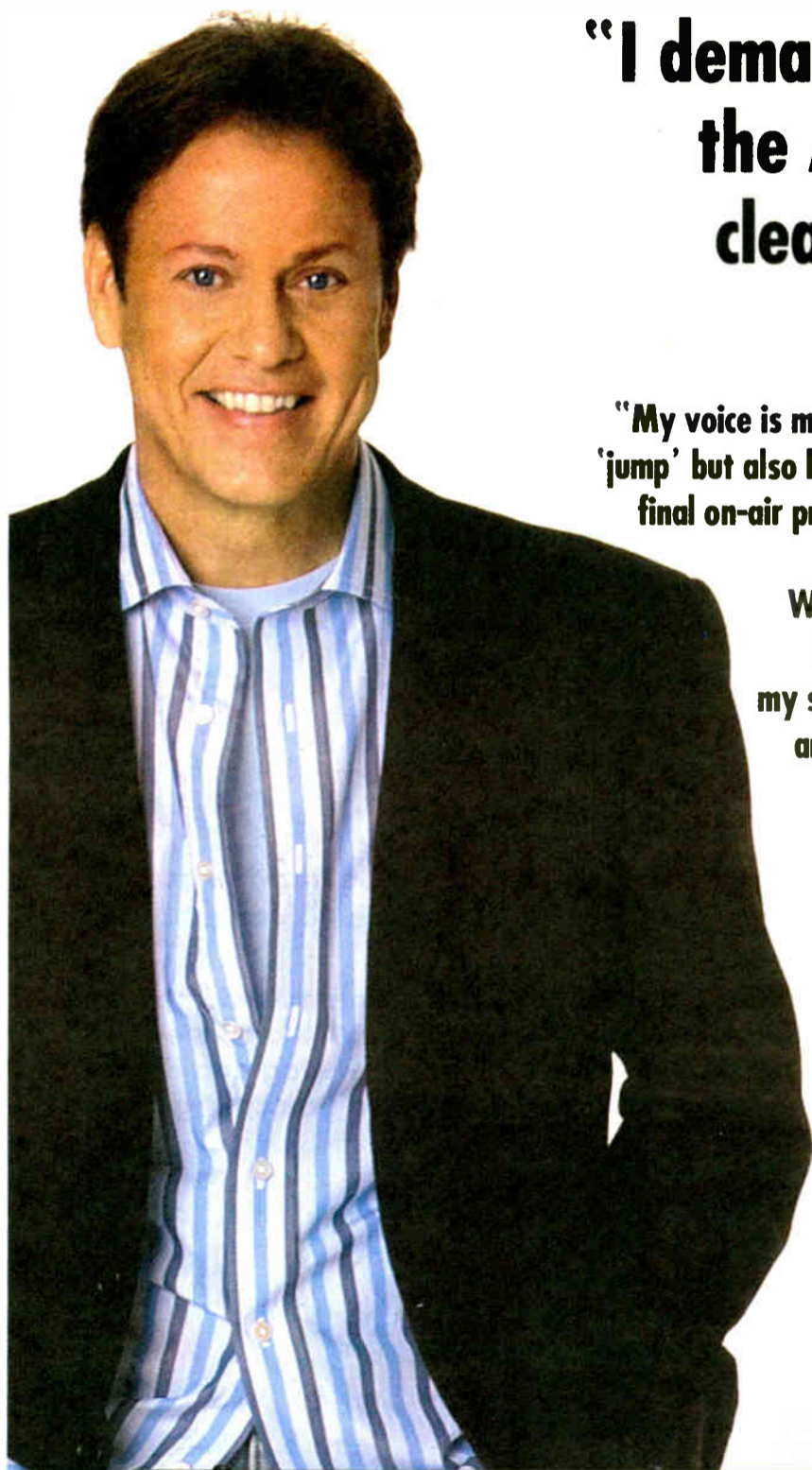
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the Aphex 230 is
clearly the best."
- Rick Dees**

"My voice is my on air signature. I want it to 'jump' but also be clean, full and natural. Most final on-air processors are cranked to 'stun' and not very kind to voices. With the Aphex voice processor, both my voice and the voice of my sidekick Patti 'Longlegs' Lopez are incredibly open and present, even after going through the station's loudness box."

The Aphex Model 230 Master Voice Channel is a combination of proprietary technologies and the highest quality components. Its performance cannot be duplicated by any other product or combination of products, hardware or software, at any price.

If you demand the best for voice processing, demand the Aphex Model 230.

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Merger

► Continued from page 10

Ron Paley, senior business developer for OMT Technologies, said the merger "certainly gives them the opportunity to be in a dominating position as a combined radio scheduling and delivery software provider. The combining of the RCS infrastructure, product and customer database into that of Prophet Systems makes a lot of economic sense."

Paley said the move reminds him of Clear Channel's approach to combining radio station infrastructure into clusters to reduce operational costs. "These can be great benefits to any business by eliminating overlap."

Another industry observer speculated the pairing of RCS and Prophet Systems would make it easier for the division eventually to be spun off by Clear Channel.

Clear Channel Communications Inc., the largest U.S. radio station owner, announced last November it agreed to be acquired by an investor group led by private-equity firms Thomas H. Lee Partners and Bain Capital Partners for \$18.7 billion in cash and the assumption of \$8 billion in debt. Clear Channel shareholders and the FCC must approve that acquisition. 🌐

“My Number One Codec Rental is Zephyr Xstream”

-Steve Kirsch, President Silver Lake Audio



“When ISDN equipment rentals began in the early 1990s, we started with an equal number of different companies’ codecs. Today, Silver Lake has over 100 Zephyrs in stock, ten times more than any other brand.” says Steve Kirsch, owner of Silver Lake Audio.

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Radio World, March 1, 2007

Past columns are archived at radioworld.com

Troubleshoot Without Blowing Your Fuse

by John Bisset

★★★

Be neighborly to those who live near your transmitter. When winter weather blasts most of the country, site neighbors can be a blessing, especially if you maintain multiple sites. For instance, if you suspect a problem with power, you can check in with the neighbors to see if they have juice.

I made it a practice to supply several neighbors with T-shirts or extra concert tickets. They never let me down, and on more than one occasion they served as my remote "eyes," tracking down would-be vandals or others wandering around my seven-acre site.

Veteran engineer Tom Osenkowsky notes a flip side of being neighborly.

Once, he was building a transmitter facility in Aruba and the phone rang. Tom assumed it was the owner calling, but no; it was a man asking in Spanish if Tom had seen his goats. Tom replied he hadn't and went on with his work.

When the owner arrived, Tom related the call. The owner said the caller was the neighbor across the street, whom station staff would call whenever the transmitter went off to determine if the failure was a power outage. And it turned out that one of Tom's jobs on the island was to shoo goats away after the staff had laid in a new ground system. Goat hoofs and newly laid radials don't mix.

Tom Osenkowsky, CPBE, can be reached at tosenkowsky@prodigy.net.

★★★

From the Gil Housewright transmitter service journal comes a real mind-bender.

New site, new transmitter. The electrician installs a fused disconnect, ties the wiring into the transmitter and leaves. The engineer throws the disconnect and tries to turn the transmitter "on" and nothing happens.

The station staff brings out the digital volt meter. Voltage is measured at the disconnect, voltage is measured past the fuses, voltage is even measured where the AC wiring ties into the transmitter. The transmitter still won't turn on — there aren't even any lights on the transmitter. Time to call Gil.

Can you figure out what was wrong? Read on for the answer.



Fig. 1: This old Hubbell connector adapter sparked lots of memories.

I still get comments from engineers who saw the Hubbell connector modified to work with a more modern phono (RCA) plug, found at WPIC(AM) by Wes Boyd and Dan Kerr. We discussed it our column of Sept. 16, 2005, which is available in our online archives.

That cable stirred a lot of memories! John Fischer works at KFUE(AM) in Clayton, Mo., as chief engineer. This station went on the air in 1924 and has a lot of radio history.

For many years, the station used these Hubbell connectors for microphone cables. At KFUE, they were still using them up to 1970 or so. They are now missing from the mike remote cables, but the studios still have the Hubbell plugs mounted in the wall for plugging in studio microphones from long ago.

John recalls a similar adapter cable used to feed a microphone into a Wollensak tape recorder. Now that's history!

★★★



Fig. 2: An inexpensive pair of fuse pullers removes blown fuses safely.

Marlin Taylor's first paying job in radio was in the summer of 1955. He was hired by WTNJ in Trenton, N.J., to be engineer for a weekly remote from a car dealership — provided he bring along the necessary equipment, which the station did not have.

That gear included a PA system. The station microphones were all from the 1930s except the one in the control room. Marlin decided to provide his two RCA 47s, for which he had bartered and on which he had replaced the ribbons.

The only problem: the station's four-channel Western Electric remote board used the Hubbell "twist-locks." Marlin purchased several and proceeded to create two adapters with XLR females for his mikes.

Because the station's portable turntable was large, bulky and marginal in performance, he created another adapter with an RCA female jack and started bringing along his RCA 45 RPM changer.

The setup performed well and delivered a great sound for circa 1955 AM radio. The Western Electric had no cue channel, so Marlin simply wore headphones and cued softly on the broadcast channel as the two DJs chattered.

See HUBBLE, page 16 ►

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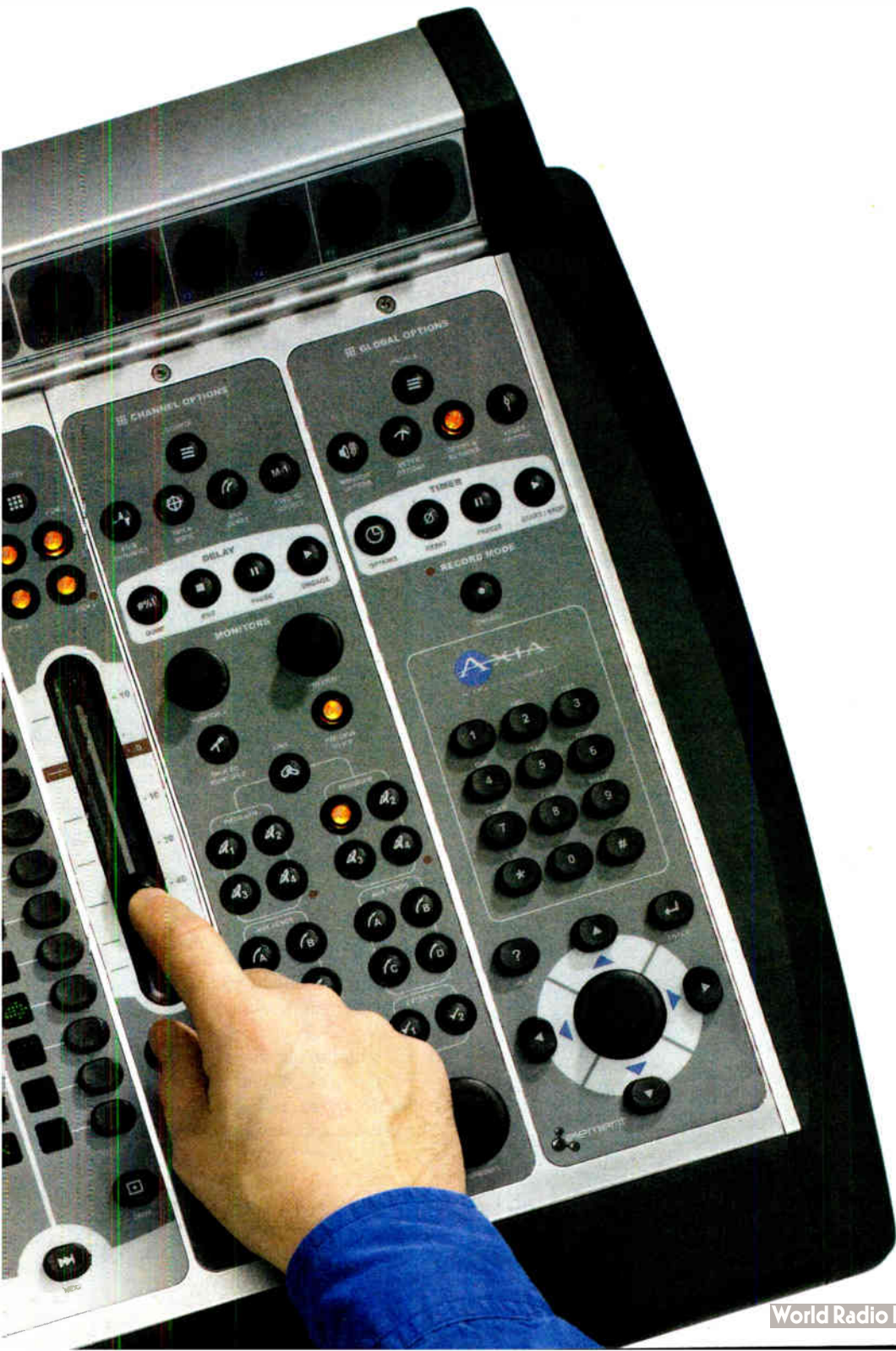
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~~250~~ studios already?

Time flies when you're having fun!

Hard to believe, but we passed the ~~250~~⁴⁰⁰ studio mark recently. We're told that it's a major milestone, but we prefer to call it a good start.

In fact, our clients have made Axia the **fastest growing console company** in radio. To you, we say "thanks" for your trust and enthusiasm. And to those of you who aren't yet clients: we're ready when you are.

Okay, back to work now. (Consoles don't build themselves, you know.)



www.AxiaAudio.com

NEWS MAKER

Thorsteinson: 'I'm A Fan of Getting Things Done'

Tim Thorsteinson, president of Harris Corp.'s Broadcast Communications Division, was appointed last year, replacing Jeremy Wensinger and bringing along a reputation as a turnaround manager in broadcast technology management.

As president/CEO of Leitch Technology Corp. he was credited with leading a financial turnaround and expansion. He joined that company in 2003 and came to Harris when it was bought in 2005. He has been vice president of Grass Valley products for Thomson Broadcast & Media Solutions, president/CEO of Grass Valley Group and president of the Video and Networking Division of Tektronix; he began his technology career at National Semiconductor Corp., where he was director of quality performance.

In making its announcement, Harris said Thorsteinson had "earned a unique reputation for transforming companies into highly efficient, profitable, customer-driven operations."

Thorsteinson, 52, is married with two young children; he is based in Toronto. He spoke to Radio World recently.

What is your management philosophy?

I'm very results-oriented. At the end of the day I'm a big fan of getting stuff done.

I like to get people around me who are also good at getting things done. Pick a direction, set an objective and try to create an environment where you can get things done. That's the challenge of working in larger organizations. We have to really focus on being responsive, and move quickly as markets change. ... I'm not a big meeting fan. I tend to try to move pretty quickly.

How is Harris doing in radio?

I think we're doing a much better job of bringing new products to market. ... The



Tim Thorsteinson

new FlexStar has been well received in the North American market. I think we built a strong account-oriented sales effort in the past year. ... The Intraplex products also continue to do well; we've brought out some new consoles. [In] after-sales ser-

vice and support, we've worked hard to try to strengthen that effort. ...

Where the [Harris] business has had difficulties in the recent past has been non-execution as opposed to strategies. You don't have to look too far around the world to find an example of where execution has been a problem! One of the things I have been known for, and hope to continue to be known for, is driving a flow of new products to the market. We make our money selling products, that's where our margin comes from.

We put a resale business together that helps pull through and so forth. But a company like Harris needs strong R&D, [needs to] deliver technology to the market and sell an increasing amount of product to the market.

Harris has made a significant commitment to this space and wants to see us grow it. That's what the shareholders expect. [But] it's a radically different business than it was historically. Harris was a transmission supplier; today that core is 15 to 17 percent of our full revenue.

Today we're a new technology supplier to media technology companies.

Not long ago Harris outsourced some work in console assembly, carpentry, systems wiring, warehousing and shipping.

Truth be known, we outsourced a very small amount of manufacturing.

The Quincy, Ill., site, which is where a lot of our people are in radio, has 400 people. I wasn't here then, but we still have the most

comprehensive manufacturing effort in the industry. The vast majority of the content of the products is built inside, in Quincy.

Part of downsizing in manufacturing in any business today is because the new tech has made products less complex to assemble; that drives less work and less activity, and that results in some job loss. That's true in cars, transmitters, any technology product.

Our division has about 2,300 people. There's been acquisitions; Leitch had about 650 or something. There haven't been dramatic downward fluctuations in our head count. We moved some manufacturing in Europe; we had a transmitter manufacturing plant [move] from England to Quincy.

How's your market share in HD Radio?

We think it's pretty good. We think it's well over 50 percent.

International business is a growing portion?

It's over a third today; I see us moving over time toward 60/40. I see pretty solid business opportunities for HD Radio in international markets [and] we still sell analog equipment in international markets as well.

What role do resale products — distribution — play?

We've got a pretty solid business there, 15 to 25 percent of our revenue. One of our current strategies is to be a full-line supplier. We sell radio consoles; we sell transmission products. Many of our customers like to buy from one vendor.

Where does online/electronic buying fit in?

This industry has just started to use the Web as a distinct mechanism. In the media technology business, use of the Web, other than for service and support ordering, is way behind where some other industries are. We really [just] have a sophisticated online brochure.

It's one of a long list of things I'd like to change. You know how that is!

But I think there's real opportunity there, for the customer and us, to be more efficient. 🌐

Hubble

► Continued from page 14

Fifty years later Marlin is with XM Radio, which he joined at the end of 2000. It's his privilege to bring joy to people's lives through his programming on the 1940s and Beautiful Music channels. Yes, Marlin is a programmer, not an engineer — though he adds that he knows just enough technical stuff to give an engineer a headache. He recently celebrated his 70th birthday and said he is proud to be XM's oldest employee, at least as measured in years.

★★★

And consultant Lew Collins of Broadcast Signal Lab in Boston writes that early on, the film industry adopted the Hubbell twist-lock AC power plugs and receptacles for its "standard" microphone connector system. Decades later the Cannon "P," Cannon "UA" and the Cannon XL (now XLR) would be adopted on a case-by-case basis.

It was not unusual to see film and sound reinforcement systems with Hubbell ML-1 and similar connectors used for their low-impedance mikes. Some radio stations followed the established film practice of using these same power connectors.

It's interesting to note that the early Cannon "P" connector, so favored by RCA Broadcast, actually was an AC power connector (hence the "P" designation) and was rated at 15 amps. Sync-sound "interlock" systems used these "P" connectors for their original purpose, providing three-phase power and/or Selsyn interlock signals to the camera(s) and recorder(s).

★★★

OK, so there's voltage to the transmitter, but no lights and no operation.

Let this be a reason to go out and buy a voltmeter with a meter and not a digital display. There's a reason those old Simpson 260s were such trusted test instruments.

After a lot of head scratching, the station contacted Gil. He asked that the fuses be removed and checked. Though both fuses were newly installed by the electrician, one was bad. The DVM was reading backflow or "phantom" voltage, which would not be read on a metered instrument.

So if you only have a DVM to measure AC voltages, what do you do? Set the DVM for an AC voltage reading higher than you'll be measuring, then place the probes across the fuse, so the meter is in parallel with the fuse.

If the fuse is bad, you'll see a voltage displayed (as the meter shows a voltage "drop" across the fuse). If the fuse is good, zero volts will be displayed, because there would be no voltage drop across the fuse.

This is a neat way to check fuses, especially those used in transmitters and in three-phase applications. You won't have to power down and remove the fuse (to check with the ohmmeter function).

By the way, if you don't have a fuse puller, as shown in Figure 2, pick one up. They're not expensive and they beat using a screwdriver to pry out the fuses for replacement — safer too.

Submissions to Workbench are encouraged and qualify for SBE recertification credit. E-mail jbisset@bdcast.com. 🌐

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Go (con)figure • The folks at MPR say they really love being able to configure and administer an entire building full of consoles and routing equipment from the comfort of their own offices. Put an Internet gateway in your Axia network and you can even log into Element (or any other part of an Axia system) remotely from home, where there's plenty of Chexco's and Pcpsi. Great for handling those 6 P.M. Sunday "help me!" phone calls from the new weekend jock.

Perfect timing • You can't have too much time. That's why Element's control display contains **four different chronometers**: a digital time-of-day readout that you can slave to an NTP (Network Time Protocol) server, an elapsed-time event timer, an adjustable count-down timer... and there's also that big, honkin' analog clock in the center of the screen (Big Ben chimes not included).

Black velvet • Some things just feel right. Like our premium, silky-smooth conductive plastic faders and aircraft quality switches. We build Element consoles with the most durable, reliable components in the industry — then we add special touches, like custom-molded plastic bezels that protect on/off switches from accidental activation and impact. Because we know how rough jocks can be on equipment. And nothing's more embarrassing than a sudden case of *broadcastus interruptus*.

Swap meet • Element modules hot-swap easily. In fact, the **entire console** hot-swaps — unplug it and audio keeps going; an external Studio Engine does all the mixing.

How many? • How many engineers does it take to change these light bulbs? None... they're LEDs.

Talk to me • Need some one-on-one time with your talent? Talk to studio guests, remote talent, phone callers — **talk back to anyone** just by pushing a button.

The Busy Box for jocks • Element comes standard with a lot of cool production room goodies you'd pay extra for with other consoles, like per-fader EQ, aux sends and returns and custom voice processing by Ornia™ enabling you to quickly build and capture compression, noise gating and de-essing combinations for **each and every jock** that load automatically when they recall their personal Show Profiles. Context sensitive SoftKnobs let production gurus easily tweak these settings while simultaneously satisfying their tactile fixations. (Don't worry; for on-air use you can turn off access to all that EQ stuff.)

Screen play • Use any display screen you choose, to suit your space and decor. Get a space-saving 12" LCD, or go for a big 21" monster. (This is Dave Ramsey's favorite Element feature, by the way. Anyone want to bet he bought his monitors on sale?)

Lovely Rita • LED program meters? How 1990's. SVGA display has lots of room for timers, meters, annunciators and more — enough to show meters for all four main buses at once. Reboot to 5.1 surround mode and the light show is even cooler, with surround audio and associated stereo mixes all going at once.

Memory enhancer • We know how forgetful jocks can be. That's why Element remembers their favorite settings for them. Element's Show Profiles are like a "snapshot" that saves sources, voice processing settings, monitor assignments and more for **instant recall**. Profiles are easy to make, too: just have talent set up the board the way they like it, then capture their preferences with a single click for later use. (Hey, make *them* do some work for a change.)

Split decision

No, you're not seeing double: Element gives you the choice of single-frame or split-frame configurations of **up to 40 faders**. Perfect for complicated talk or morning shows where the producer wants his own mini-mixer, or to give talent space for copy, newspapers and such. Solomon would be proud.

Stage hook • This button activates the emergency ejector seat. OK, not really. It's the Record Mode key: when you press it, Element is instantly ready to record off-air phone bits, interviews with guest callers, or remote talent drop-ins. One button press starts your record device, configures an off-air mix-minus and sends a split feed (host on one side, guest on the other) to the record bus. Like nearly everything about Element, Record Mode is **completely configurable** — its behavior can even be customized for individual jocks. Sweetee!

Missing features • Did we forget something? Program these **custom button panels** with any macro you want, from recorder start/stop to one-touch activation of complex routing and scene changes using PathfinderPC™ software. You could probably even program one to start the coffee machine (black, no sugar, thanks).

Mix-plus • If constructing a complicated mix minus on the fly brings a big grin to your face, you're excused. But if you're like us, you'll love the fact that Element does mix minus **automagically**. Forget using all your buses for a four-person call in, or scrambling to set up last-minute interviews. When you put remote codecs or phone calls on air, Element figures out who should hear what and gives it to 'em — as many custom mix-minuses as you have faders.

Great Phones • With Element, jocks never have to take their eyes or hands off the board to use the phones. Element works with any phone system, but really clicks with the Telos Series 2101, TWOx12, and new NX-12 that connects four hybrids plus control with a **single Ethernet cable**. StatusSymbols™ (cool little information icons, tell talent at a glance whether a line is in use, busy, pre-screened, locked on air, etc.) Even dial out with the built-in keypad.



AxiaAudio.com

Shown: 16 position split frame Element, nicely equipped. \$12,558.00 US MSRP. Not shown but available: 4-, 8-, 12-, 16-, 24- and 28 position Element. Dual exhaust and white walls optional at extra cost. © 2006-2007 ELS Co. p. Axia, Element, Pathfinder PC, Status Symbols, Ornia™, IMHS Corp., all other TMS property of their respective owners.

ROOTS OF RADIO

The Vacuum Tube Celebrates 100 Years

by James E. O'Neal

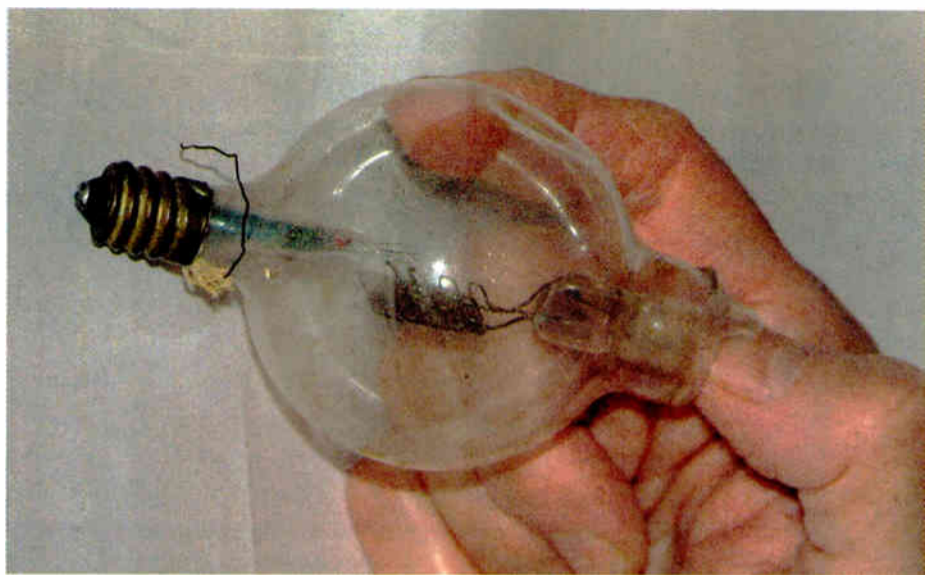
The device that heralded the beginning of the 20th century electronics industry first saw the light of day in late 1906, just over a century ago. This was the triode electron tube, or *audion*, as its inventor called it.

To those of us who lived and worked with vacuum tubes at least some time during our careers, Lee de Forest's invention seems both simple and obvious: a glowing metal filament (cathode) provides a source of electrons that are attracted to a positively charged plate or anode (de Forest initially called it a "wing"). Interposed between the cathode and anode structures is a "less than solid" grid. (The grid in the original tube was simply a piece of wire bent back and forth in a zigzag manner. It later evolved into a more efficient helix of wire surrounding the filament or cathode.)

By varying the voltage on the grid, the stream of electrons being drawn to the anode is modulated. A small grid voltage can effect an appreciable change in a plate circuit load resistor, and the voltage developed across it. It amplifies!

Simple!

However, it took a patent suite to force its invention, five to six additional years to turn it into a practical device, the work of another fabled engineer to explain its workings, and several legal skirmishes to



An early de Forest audion vacuum tube. The wire emerging from the base is tied to a 'spare' filament. When the first filament burned out, users could connect the wire to the screw base shell and get additional life from the tube. Some users burned both filaments at the same time in an attempt to get more performance from the audion.

clear the path for its commercial use.

The concept of the electron tube goes back quite a bit before de Forest. Geissler tubes, Crookes tubes, Lenard tubes, x-ray tubes, early cathode ray tubes and others all involved sealing metal electrodes into a glass envelope or tube and removing a certain amount of air from the space inside.

Thomas Edison must be given credit for the creation of the "hot cathode" tube — he sealed a metal plate inside one of his electric lamps and noted a unidirectional flow of current when the lamp's filament incandesced. He received a patent on this "Edison effect," but did not try to commercialize it, or spend much time in trying to understand what was happening.

Later, a British scientist, John Ambrose Fleming decided to try it out as a detector of radio frequency energy and learned that it worked very well for that purpose. He dubbed it the "oscillation valve" and received a patent on his discovery. (Electron tubes have always been known as valves in England.)

Enter de Forest

After graduating from Yale's Sheffield Scientific School in 1899, Lee de Forest had hoped to work in Nikola Tesla's laboratory but received no offer. Instead, he moved through a series of low-paying introductory positions in the field of telephony and wireless before meeting a less-than-honest stock promoter, Abraham White. In a short time, White had incorporated the De Forest Wireless Telegraph Company in New Jersey, with himself as president and with young de Forest serving as vice president and scientific director.

In truth, White was more interested in making money than furthering the state of wireless communications, but he had to have something to show potential investors, so a number of wireless telegraph stations were constructed in the Eastern United States. The company set up a particularly impressive display of wireless at the 1904 St. Louis World's Fair.

Fessenden

Many problems beset the operation of the De Forest Wireless Telegraph Company. Among these was legal action taken by Reginald Fessenden over de Forest's unauthorized use of Fessenden's electrolytic detector. In 1906, after three years in the courts, Fessenden was awarded a judgment and effectively put the de Forest company out of business. White was quick to reorganize under

another name and transfer assets, so as to deny Fessenden the monetary penalty the court assessed. There was no place for de Forest in this new venture; he was terminated with a small amount of severance pay and a solitary invention he'd been working on that White believed to be worthless. This was a detector of radio waves that did not infringe on Fessenden's device.

Exactly how de Forest arrived at his idea for a detector is a matter of conjecture. As mentioned, Edison had discovered that a negative voltage could move through the empty space in the specially constructed electric lamp. Later, Fleming adapted this principle to demodulate RF energy and published his findings in 1905.

With Fessenden's lawsuit looming, it is to be imagined that de Forest quickly began searching for another technology to replace that crucial (and borrowed) part of the radio system that he was using.

By his accounting, de Forest had first tried detecting radio signals by placing electrodes in an open gas flame. While this worked, the detector was only as stable as the air currents around it and could not be transformed into a commercial device.

It could be assumed that de Forest made the crucial "jump" in his road to invention by replacing the gas flame with an electrical one, sealed within a glass shell.

Enter McCandless

It is reported that in the fall of 1906, Henry McCandless, a New York City manufacturer of small electric lamp bulbs, was approached by an assistant of de Forest's and asked to fabricate what amounted to a Fleming valve.

In a matter of weeks, de Forest unveiled his latest development at a meeting of the American Institute of Electrical Engineers in New York City. The date was Oct. 26, 1906. De Forest used the word "audion" to describe this new detector.

At this point in time, it appears that de Forest had merely reverse engineered yet another invention.

However, within the month, he enhanced the oscillation valve or audion into something unique and patentable.

How de Forest came upon the idea that jumpstarted the electronics industry will probably never be known with certainty. Why he did it may be clear in light of the audion's closeness to Fleming's valve.

De Forest had experimented with using multiple electrodes in his flame detector experiments. Perhaps this was the genesis of his invention; perhaps not.

He had also been experimenting with the use of a battery, or batteries, in connection with the Fleming diode. Perhaps he was curious about what would happen if he used multiple electrodes as he had done in the lamp detector. Perhaps he just wanted to make it appear to be something other than a direct knock-off of Fleming's device. His exact reasons will never be known.

During that November, in an attempt to either replicate his work with the

See VACUUM, page 19 ▶



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Vacuum

► Continued from page 18
 flame detector, or possibly to make his device different from Fleming's, de Forest sought a patent on a device that consisted of a filament, an anode and a control electrode of sorts (not a grid). Such a tube could not have provided de Forest with any useful gain. (However, years later, this principle of "gridless control" was successfully adopted by Heintz & Kaufman Ltd. and was the basis for their "Gammatron" tubes.)

De Forest kept up his experimentation and on Nov. 25, 1906, he had McCandless incorporate a grid structure into the experimental lamp devices he'd been ordering.

Genius?

Was it a stroke of genius, or just a plodding attempt to avoid infringement on Fleming's detector?

It doesn't really matter. This was that bit of tinkering, experimentation, innovating, developmental engineering or just plain luck that put de Forest over the top.

This was the small step that immortalized de Forest and placed him among the top inventors of the century.

Instead of merely detecting, the addition of the third element allowed the audion to amplify. If it could amplify, then it could oscillate. The possibilities for the new device appeared to be nearly limitless.

However, all of this was to come somewhat later. At the end of 1906, the audion was far from perfect and de Forest was woefully ignorant as to how it worked. This is so stated in his patent application.

He assumed that ionized gas was somehow involved in moving charges through space, hence the name aud-ion. In fact, he rationalized that if too great a vacuum was created in processing the audion, the tube could not work.

This resulted in the audions produced by McCandless being quite gassy and of limited use. (The chief customers were radio amateurs, and the early tubes sold for \$5.) If more than a few tens of volts were applied to the wing (plate), then the residual gas would ionize and render the tube useless until the potential was removed.

Also, carbon or pure tungsten are not the most copious electron emitters and early adopters of de Forest's triode would frequently burn out the filament in their efforts to squeeze more performance from the little amplifier, resulting in product returns to McCandless.

For this and other reasons, McCandless was not that excited about manufacturing audions for de Forest, but continued to do so for some time. He was in part responsible for several changes and improvements to the device during the next several years of its existence.

It took Edwin H. Armstrong to fully analyze the operation of the de Forest audion and put forth the correct theory of its operation.

De Forest eventually sold rights to his invention. Engineers and scientists at both Western Electric and General Electric "took it from there" and shaped the primitive little device into the workhorse that drove the radio, recording, television, computing and numerous other industries until the invention of the transistor began to eclipse it more than 50 years later.

De Forest was honored in 1922 with the Institute of Radio Engineer's Medal of Honor in recognition of his invention and other work in the field of radio.

Later in his life, de Forest served a term as president of the IRE (1930) and in 1946 received the AIEE's Edison Medal for his development of the vacuum tube.

Although de Forest died at the age of 87 in 1961, his invention lives on. Even though the vacuum tube is officially 100 years old now, it has not been forgotten and pushed out of the way. Several companies still manufacture tubes and many audiophiles claim that tube technology is the only way with which to reproduce high quality audio.

Happy birthday!

This article was prepared for the IEEE Broadcast Technology Society Newsletter.

MARKET PLACE

Bird Releases

TX RX Control Station Combiners

Bird Technologies Group, a manufacturer of RF measurement and management equipment, released a new TX RX Control Station Combiner (CSC) product line.

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Soup and the Fall Radius of Towers

Don't Waste Your Breath at Planning Meetings. Bring Along Some Cans of Chicken Soup!

by Frank McCoy

Increasingly it seems that when broadcasters seek to construct tall towers, local opposition invokes the issue of the tower's "fall radius."

In many localities, this term is defined as a distance from the base of the tower, equal to the overall height of the tower. In some cases, communities have even added a buffer distance *beyond* the tower's overall height. The rules usually require that no occupied structures or roads be within the fall radius. For a tall tower, that can mean buying a very big piece of land.

Recently I faced just such a zoning hurdle in Colorado — and prevailed.

Background

Sometimes I wonder if this fall radius business isn't just about preventing the construction of towers. It probably is. We all know of communities where it requires litigation to get permission to construct a tower of any height. Setting an impossible requirement at the land acquisition stage is an ideal way to keep towers out altogether.

The hurdles seem to be highest in communities with the most disposable income and, probably, levels of cellular phone subscriber penetration. But that's an irony for another day.

Local communities usually employ a *planning commission* in determining the worthiness of any particular land use — towers included. That's usually your first stop. In all but the largest communities, these are volunteers, appointed by a county board or town council to review land use applications and offer guidance as to whether a particular application is suitable.

While every engineer I speak to agrees that towers collapse into a debris field near the tower base, none seems interested in signing a piece of paper that says so.

In most jurisdictions, there are also professionals called *planners* who administer day-to-day application processing and provide guidance to applicants. In turn, the planners often explain the details of a proposal at planning commission meetings. Usually these are open to the public and are held in the local village hall or county building.

This is, inarguably, democracy at its best. I'm reminded of that Norman Rockwell painting of a man rising to speak at just such a town meeting, his cap tucked into the back pocket of his jeans. And at planning commission meetings that I have attended, it works just that way — everyone with something to say gets a hearing. At my Colorado planning commission hearing, a residential developer nearby sent legal counsel. Let the lawyering begin!

After the planning commission has its bite of the considerational apple, it renders a decision for or against, usually by a roll call vote of the planning commission members. This becomes the recommendation to the elected officials of the village board, town council or county board, as the case may be. Approval (and the right to apply for a building permit) usually only comes with a thumbs-up from the elected body.

Evidence of the senses

I've been through a few of these three-steps in my time. I have been welcomed and I have been shouted down. Most times it is simply a matter of answering the concerns and objections.



A proactive tower proponent prepares responses and answers, as you'll often be peppered with questions. This is a bit like prep for a political debate (which is really is) where the "sound-bite" answer is the one you want to use.

But sometimes no amount of explanation can get past what people believe is true. This is particularly problematic when common sense tells you something is true when it isn't.

Most planning commissioners and local elective officials have no engineering or physics background. So when the tower applicant with a vested-interest ax to grind tells the good townspeople that the tower won't fall on them, sometimes they just don't believe it.

The guy with a house that's 1,000 feet from the proposed 1,100-foot tower is particularly skeptical. Our homeowner doesn't have a structural engineering degree but somehow he seems to carry the day at the meeting, since nobody can say for *certain* his house won't be flattened in a tower collapse.

As students of science, we all know that gravity is a uniform acceleration of 9.8 meters per second squared. This means the bottom of the tower falls at the same rate as the top of the tower. Tower pieces that fall for three seconds will be traveling at about 88 meters per second whether they start at the top of the tower or halfway

down. Once you understand this, it is easy to see that falling tower parts are inexorably pulled into a follow-the-leader pile near the tower base. (For those more comfortable with English units, 88 meters per second is about 200 miles per hour.)

As obvious as this conclusion is, and while every engineer I speak to agrees that towers collapse into a debris field near the tower base, none seems interested in signing

When the tower applicant with a vested-interest ax to grind tells the good townspeople that the tower won't fall on them, sometimes they just don't believe it.

a piece of paper that says so. I've tried. And who can blame them? It's a litigious world out there. Those pesky lawyers again ...

Proof in the pantry

So once again I was going it alone, heading for my turn at the lectern trying to explain to frightened locals why a fall radius equal to the height of the tower is excessive for tall towers.

The prevailing idea of a tower is that it is a big steel thing and that steel just doesn't bend that easily. So this particular planning commission, like many I have faced before, pictured a tower collapse as just like what happens when you let go of a rake handle. The rake falls flat to the full length of the handle with a mighty "whap." It's obvious what happens. It's just plain common sense. The big steel thing falls over.

On a long plane ride to the public meeting, I puzzled over how I might overcome the visual of the rake handle. Finally, it dawned on me.

I went to the local supermarket and bought two cases — 48 cans — of Campbell's Chicken Noodle Soup. It so happens that the regular-sized condensed soup cans are almost exactly the right aspect ratio to represent 20-foot tower sections with 12-foot faces. The 12:20 ratio is within 10 percent of the 66:100 millimeter dimensions of a Campbell's can. The soup cans are designed to stack on the grocer's shelves, with the bottom of the can being a slightly smaller diameter than the top. This nesting reasonably imitates the bolted-together flanges of real tower sections.

After a bit of explanation to the planning commission and the other citizens present, I began stacking the soup cans one on top of the other. When I had about eight cans stacked, it got a bit wobbly. I explained that for a real tower the builders would install a set of guy wires before stacking more sections. At this point I suggest you call for a volunteer to be your guy wires, stabilizing the stack as you continue stacking your tower.

You won't get far with your stacking before everyone is freed from the rake handle model and has fully embraced the tower-failure reality predicted by physics.

Finally, I explained that to model an 1,100-foot tower accurately would require 55 cans. For those commissioners who might be a bit slow, you can ask what they believe will happen if one of the cans is removed or if one of the volunteers lets go. I predict you won't have to.

In community meetings all across the country I've wasted my breath trying to explain my way out of the fall radius requirement. No matter what scientific evidence is offered, that rake handle remains in the minds of the locals.

Chicken soup can erase it. Go ahead and knock your tower down. Let everyone watch to see what happens. So be sure to bring some Campbell's to your next planning meeting. You'll get an opening laugh and the assembled citizens will watch with interest. They'll learn something and you'll get past the fall radius objection.

Be sure to drop the soup off at the local food pantry on your way out of town.

The author has held engineering management positions with ABC, Gannett Broadcasting, Capstar and AMFM Inc. (Clear Channel). He works for American Media Services in station development, planning and executing coverage upgrades of AM and FM stations.

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Portable IBOC May Be on Its Way

A New Prototype Chip Provides Hope That Portable HD Radio Receivers Will Be on Store Shelves Soon

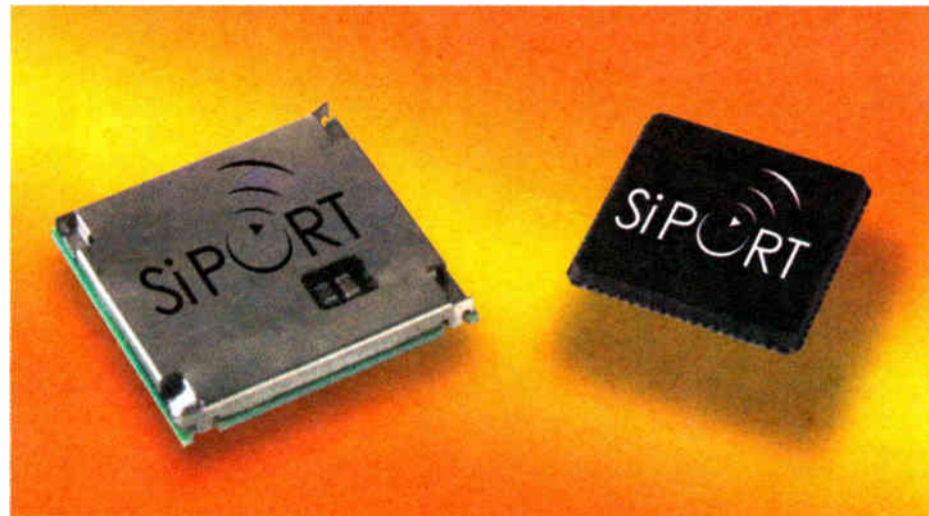
A recent Radio World editorial (Jan. 17) lamented the absence to date of portable HD Radio receivers, and cited their importance to a successful transition to digital for the U.S. radio industry. It now appears that help may be on the way.

A company called SiPort has developed an IBOC receiver chip with small size and low power requirements — attributes that previous HD Radio receiver chipsets have not included — and the company expects the device to be widely available later this year.

The chip is also notable because it represents the first IBOC receiver to be developed using a non-Ibiquity implementation. SiPort developed its own implementation of an IBOC receiver based largely on the NRSC-5-A standard, and licensed the necessary IP (plus the HDC audio codec, which is not included in NRSC-5-A) from Ibiquity Digital.

You may recall that as part of the IBOC standardization process, Ibiquity disclosed and pledged to license on reasonable and non-discriminatory terms to any applicant all necessary patents for building IBOC systems (absent the HDC decoder). SiPort appears to be the first company to do so, and its accomplishments are testimony to the viability of this approach — at least in part. Perhaps this action will pave the way for more

IBOC implementers coming to market with new systems that use either Ibiquity's own HD Radio implementation, or independent IBOC implementations based on the NRSC-5-A standard.



The SiPort IBOC/DAB/DMB single-chip, low-power solution, at right, is 9 mm square. A typical product-ready module (~15 mm) is at left.

Note, however, that although the process began as an open standards play, the SiPort chip ultimately was not a “pure” standard-based design (i.e., not a true “clean-room implementation,” to use standards terminology). Along the way,

Ibiquity provided SiPort directly with additional documentation and technical resources beyond the standard specification, particularly in the porting of the HDC codec and the optimization of the chip. Thus the development of a completely NRSC-5-A-based implementation has yet to occur, although Ibiquity Digital

has affirmed its continued openness to pursue such a solution with any interested parties.

In any case, the key departure of SiPort's chip from previous designs (from Texas Instruments and Philips, all based on Ibiquity HD Radio implementations) remains its appropriateness for portable application. It is able to provide fully compatible IBOC AM and FM reception at a fraction of the size and power requirements of previous systems.

Reportedly, Ibiquity Digital is also working with at least one other chip vendor (TI) on another small, low-power chip suitable for portable use, based on Ibiquity's own implementation, so there may soon be a competitive market for such devices.

Impressive development

The SiPort chip is impressive on numerous technical fronts.

First, it is considered a “mixed signal” design (meaning that analog and digital elements coexist on a single die), an area in which SiPort has substantial design expertise. Such techniques are at the frontier of today's chip technologies, and in this case they allow one small (~9 mm square) piece of silicon to handle both RF and baseband signals. In other words, this single tiny chip manages tuning, demodulation and decoding of AM and FM analog and digital audio plus auxiliary data signals, making it the first truly single-chip IBOC receiver design.

By way of context, consider that other developments in the mixed-signal environment have made some of today's most attractive and leading-edge handheld devices possible (and affordable), such as 3G multimedia mobile phones. The current and projected market size of these popular products has stimulated the substantial investments made in development of such chips, and companies like SiPort have thereby been able to make remarkable progress in relatively short order.

The SiPort chip likely will also break a price barrier for IBOC receivers. Unlike previous HD Radio chips, which use a more expensive Silicon Germanium

The Big Picture



Photo: Gary Hayes, BBC

by Skip Pizzi

(SiGe) process, SiPort developed its device using the widely available CMOS approach. The use of CMOS is also what allows the SiPort chip to operate on about 10 percent of the power required by previous IBOC solutions. Combined, these attributes should enable manufacturers to offer inexpensive portable IBOC receivers with reasonable battery life, and to consider adding IBOC reception to other popular handheld devices like mobile phones and MP3 players.

The chip represents the first IBOC receiver to be developed using a non-Ibiquity implementation.

Finally, the SiPort chip uniquely leverages the cost-effectiveness of multiformat capability. It is designed to handle IBOC, DAB and DMB reception on the same hardware (with different firmware loaded for each format), and thus the chip can be sold into a global marketplace, even though the deployment of each format is essentially limited to a single region at present.

Working prototype receivers have been demonstrated in all three formats (including both VHF and L-band modes of DAB) by SiPort, and it expects to have engineering samples of the chip available by mid-year. The chip is designed for quick and simple integration by consumer electronics manufacturers, and SiPort is developing comprehensive support and documentation materials to facilitate this.

SiPort expects to formally announce the chip's availability this summer, with mass production by fall, and perhaps the first products based on the device on store shelves for the 2007 holiday buying season.

Downstream marketing

The SiPort chip and others suitable for portable use will clearly have a welcome impact on the HD Radio environment, enabling a variety of new digital radio form factors for the U.S. market. They may also be useful in new portable HD Radio datacasting receivers, where no audio components need be included. (SiPort believes that in such devices, its chip may be further optimized to operate with even lower power requirements.)

Perhaps even more important, the SiPort chip shows that independent
See CHIP, page 23

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One of the largest Wheatstone networked audio systems in North America was installed at a six-station **Corus Entertainment** complex in Montreal.

The original order, orchestrated by regional dealer Marketing Marc Vallee, included 18 G-6 controls surfaces, one G-9, one G6 EQ, 29 Bridge Routers and two WheatNET Superswitches. In addition to 43 rooms of TechLine studio furniture and 29 rooms of prewire, Wheatstone provided eight 5200-D news mixers, 16 desk turrets, 16 Ethernet programmable button panels (intercom), system wiring/documentation and 16 I/O channels of A.O.I.P. driver interface.

Corus recently expanded its system before the last of three stations moved in. It purchased 12 more 5200D News Room Mixers, two more digital output cards and several Ethernet XY controllers. All six stations are on the air from their new location at Place Bonaventure in downtown Montreal. ...

Recent users of Telos Zephyr Xports include **Sirius Satellite Radio**, **Korean Christian Broadcasting** and **Major League Baseball Radio**, all in New York,

and **KUPD(FM)** in Phoenix.

New Axia studios are on the air at **Canada Satellite Radio**; **WUOT(FM)** in Knoxville, Tenn.; **KOOP(FM)**, Austin, Texas; and **WUCF(FM)** Orlando, Fla. ...

Netia said **Eco-Média**, a Moroccan media group, would launch a Casablanca-based radio station built on its Radio-Assist 7.5 software range. Atlantic, the new French-language station, broadcasts nationwide with one broadcast focused on Casablanca and the other on the Rabat region. ...

Envision Radio's **Pump Audio** said **KQXX(FM)** in McAllen, Texas, is the newest affiliate to its network. Pump Audio provides independent music to content creators. ...

Airplay monitoring company **Mediabase**, part of Premiere Radio Networks, will be the exclusive provider



Racks of Wheatstone gear await shipment to Corus.

of music monitoring information to **Cumulus** music stations. The research firm said music-formatted Cumulus stations would begin reporting weekly playlist adds exclusively to Mediabase, which also has exclusive arrangements with other groups including its own Clear Channel plus Emmis, Nextmedia and Radio One. ...

Cedar Audio USA said it sold four DNS1000s and one DNS2000 Dynamic Noise Suppressor units to the Arabic Television news channel **Al-Jazeera**. The Cedar DNS units are based at Al-Jazeera's studios in Washington, Doha, Kuala Lumpur and London to support Al-Jazeera English.

E-mail news of recent purchases, contracts and facility projects to radioworld@imaspub.com. News from both users and suppliers welcome.

Chip

► Continued from page 22

implementations of IBOC solutions are feasible — and that Iqivity is willing to undertake a flexible range of relationships with developers — thereby opening the market to a more diverse base of suppliers, which in turn should continue to drive costs down and availability up for digital radio receivers in the United States. This is nothing but good news for the industry.

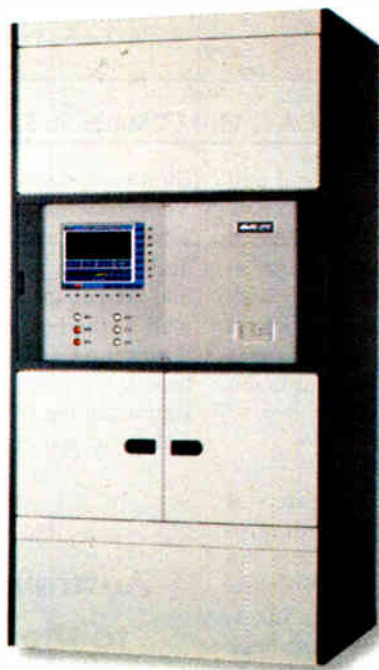
A related issue concerns the use of Iqivity's HD Radio logo on products built from non-Iqivity implementations. Manufacturers using an Iqivity implementation in their receivers automatically receive the right to license the HD Radio trademark along with technology they license, but those taking a standards-based route to their own IBOC implementations do not.

However, Iqivity has now established a process for verifying the compatibility of such products, and if the developer chooses to seek such approval and receives it, Iqivity will classify the product as "HD Radio Ready." SiPort will apparently be the first to pursue this label, after which manufacturers of receivers built with its chip can license the HD Radio logo from Iqivity for use on those products.

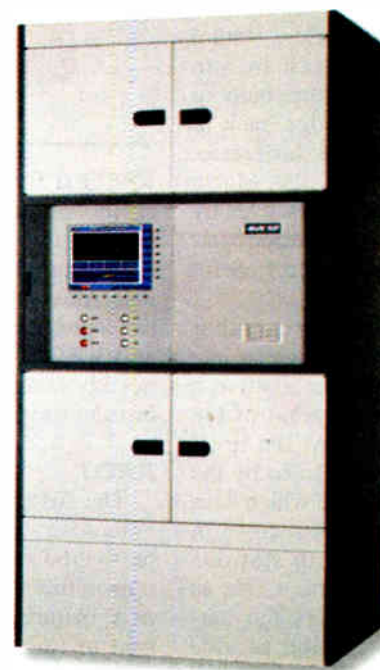
Such are the challenges of bringing a new format to market today, and the opening of a hitherto proprietary marketplace. On balance the SiPort development should be a strongly positive and groundbreaking development for U.S. digital radio broadcasting, enabling cost-effective HD Radio delivery to portable digital audio systems, and potentially, to a whole new class of personal data devices. Watch for its ultimate impact over the coming months.

Skip Pizzi is contributing editor of Radio World.

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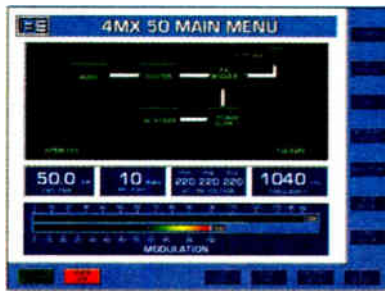


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AMERICAN SHORTWAVE

Voice of America: Palo Alto in California

by Adrian M. Peterson

This is the second in an occasional series on the stories behind shortwave broadcasting stations in the United States and its territories; it is published in cooperation with the National Association of Shortwave Broadcasters.

Long gone, and almost forgotten.

That is the story of an important international shortwave broadcasting station in California that was on the air during the intense days of the decisive Pacific War. Programming from this station was beamed south to the Pacific and north to Alaska and it was made up of relays from OWI-VOA and also AFRS.

We take a look at the known information, admittedly a little sketchy, about this significant shortwave relay station, and we begin way back nearly 100 years ago.

Federal Telegraph

There was a maritime wireless station established on Ocean Beach in San Francisco near what became the southern end of the Golden Gate Bridge back in the year 1910. During the American involvement in World War I, this Morse Code wireless station was taken over by the Navy for naval communication, and in 1921, it was handed back to Federal Telegraph.

During the following year, another maritime station with updated electronic equipment was erected further south at a new location in the marshy areas of the inner harbor at Palo Alto. At the time, both of these stations were owned by the Federal Telegraph Company, which also owned a wireless equipment factory in the Palo Alto area, and both stations identified on the air in Morse Code as KFS. Over a period of six years, the maritime wireless communication service from the older Ocean Beach station was fully phased out in favor of the newer Palo Alto station.

Soon afterwards, the communication radio station at Palo Alto was sold to the Mackay Wireless & Cable Company, though the station still identified on air as KFS. That was its main call sign, and back in those days, every new channel in the shortwave spectrum was officially allocated a new three letter call sign. In the mid 1930s, most of the channel call signs from Palo Alto Radio were in the KW series, such as KWA, KWB, KWC, etc.

Immediately after Pearl Harbor, rapid moves were made in the United States to increase the number of shortwave transmitters on the air with international radio programming from a dozen up to about three dozen. In fact, on the West Coast at that time, there was only one regular station on the air with international shortwave programming; that was station KGEI, at Belmont, also south of San Francisco. It is true, special programs were broadcast from some of the communication transmitters operated by RCA (Radio Corporation of America) at Bolinas, but the scheduling was only

occasional and spasmodic.

Quite quickly, additional shortwave transmitters were installed at various locations in California and brought into service as soon as possible to give international coverage into the Pacific and Asia, as well as to Australia and New Zealand.

Among these new stations back in the early days of the Pacific War were KWID and KWIX at Islais Creek, KRCA and

for the VOA-OWI transmitters was produced in the Sutter Street studios, and also in studios established in two hotels on Nob Hill, Fairmont and Mark Hopkins.

The OWI-VOA office in Sutter Street sent me a copy of their official schedule for the California stations, effective Aug. 1, 1945, just a few days before the surrender broadcasts. This schedule included the programming from all of the California



KROJ QSL card, VOA-OWI, 111 Sutter St, San Francisco

KRCQ at Bolinas, and an additional unit at Belmont, KGEX. In addition, two new broadcasting units were made available at KFS, the Mackay maritime station at Palo Alto, and these identified on air with the four letter broadcast call signs, KROJ and KROU. A third unit, KROZ, was quickly commandeered for the surrender broadcasts in August 1945.

KROJ

The first of these new transmitters at Palo Alto was KROJ, and according to published information at the time, the transmitter was a 50 kW Press Wireless unit, manufactured in the United States, sent to England, and re-imported back into the United States.

However, another report states that the new KROJ was in reality an RCA unit, already available, that was quickly installed at Palo Alto and pressed into service. Notwithstanding these published reports, experienced radio personnel in the San Francisco area state that they consider the new shortwave service was transmitted from communication units already on the air at the Palo Alto station, and perhaps modified for broadcast usage.

Experienced international radio monitors in Australia and New Zealand who tuned in daily to the many shortwave stations in California during the Pacific War noted the strong signals from station KROJ and estimated the power output to be at 50 kW. The signal strength surely indicated that the power output of this strong new station could not be less than 20 kW, and certainly not at 100 kW.

Without ceremony or prior publicity, transmitter KROJ suddenly appeared on the shortwave bands with a relay of programming from VOA, the Voice of America and AFRS, the Armed Forces Radio Service. The first known monitoring of this new unit was in Australia in June 1943.

Just prior to Pearl Harbor, OWI, the Office of War Information in Washington, established a branch office in San Francisco. The location was 111 Sutter Street, the well known home for NBC around that era. West Coast programming

shortwave stations that were active in the VOA network at the time. These stations were KROJ and KROU, as well as KGEI and KGEX, KWID and KWIX, KCBA and KCBF, and KNBA/KNBI/KNBX, as well as the new Hawaiian station KRHO. (Over a period of time, we hope to look here at the history of all of the shortwave stations in the United States, including the California stations.)

Experienced international radio monitors in Australia and New Zealand who tuned in daily to the many shortwave stations in California during the Pacific War noted the strong signals from station KROJ and estimated the power output to be at 50 kW.

This VOA schedule shows such familiar programs from the wartime era as "World News," "Concert Hall," "Your Marine Corp.," "G. I. Jive" and "Hymns from Home." Commentaries from major sporting events were also included in their regular programming. This schedule shows only the English language programming, and none of the programming on the air in the foreign languages of Asia and the Pacific.

It is probable that the broadcast call signs for the relay transmitters at Palo Alto were derived from KRO. The call sign KRO had been in use previously with the RCA shortwave communication station at Kahuku on the island of Oahu, Hawaii and it was recycled into use at Palo Alto in early 1943. Hence, from communication KRO was derived the broadcast call signs KROJ, KROU and KROZ.

Footprint

The intended coverage areas for the transmissions from KROJ were the South Pacific, coastal Asia, New Guinea, Alaska and the Aleutians. Shortwave frequencies were chosen accordingly, to ensure propagation at the required dis-

tance and at the time of day in the reception areas.

The signal strength in the target areas was usually very good. In fact, an army officer serving in North Borneo stated on one occasion, as reported in a radio magazine in Australia, that he was hearing the broadcasts from KROJ via a local medium-wave (AM) station. It is probable that this off-air relay from KROJ in San Francisco was heard from an AM medium-wave station located on Labuan Island, North Borneo, that had been captured from the Japanese just a few days earlier.

A sister transmitter, KROU, suddenly appeared on the radio dial in April 1945, equally unheralded and unpublicized. Programming for this unit was also drawn from VOA and AFRS sources and beamed to similar areas as KROJ, north to Alaska and south to the Pacific. The planned scheduling for these two transmitters was announced ahead of time on air, and in radio magazines in the United States and Australia, and it was also sent to listeners in duplicated form.

At the time of the Japanese surrender in 1945, another Palo Alto transmitter suddenly joined the network, and this was identified as KROZ. This unit was already in service with communication traffic across the Pacific, it was stated, and because of the sudden requirements at the end of the Pacific War, apparently it was hurriedly given another broadcast call sign in the Palo Alto sequence and brought into service. Maybe this call sign with its very brief usage was even unofficial. Who knows?

Programming from KROZ was in parallel with KROJ. Station KROZ was on the air for a few days only, and at the

most, just a week or two.

The last known program broadcasts from KROJ and KROU took place around November or December 1945. The war was over, and the two new and very large stations, VOA Delano and VOA Dixon, both in California, were already being phased into service. The temporary units at Palo Alto were no longer needed for broadcast service, and we would guess that they were quietly taken back into the regular communication service from Radio Palo Alto, station KFS.

The total time of on-air service from KROJ/KROU/KROZ was less than 1-1/2 years, and they vanished as they began, unheralded and unannounced.

Dr. Adrian M. Peterson is a board member of the National Association of Shortwave Broadcasters. He was born in South Australia in 1931; since 1944 he has since written several thousand articles on radio history, which have been published in 25 languages. He is advisor to the program "Wavescan" and coordinator of international relations for Adventist World Radio. He wrote "The 'Isle of Dreams' Goes Shortwave" here last fall.

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DIGITAL NEWS

New Satellite Radio Tested In Europe

NOORDWIJK, The Netherlands

The European Space Agency and its partners showed a prototype of an auto satellite radio system for Europe. Among firms involved are BMW, Deutsche Welle and Fraunhofer.

Rather than using repeaters to bolster reception in tunnels and urban canyons, ESA says its team designed a flat, mobile antenna built into a car roof. It receives Ku band signals from existing satellites, saving the cost of launching more. XM and Sirius, by comparison, transmit on S-band and use repeaters as backup.

The mobile multimedia system uses a cache memory, a hard disk or its solid-state equivalent, to prevent loss of signal. Received signals are stored for later playback.

Ku-band transmission may be an issue, sources said, because there is no industry standard and because geostationary satellites, such as those used by XM, can have poor coverage in Europe. An organization planning satellite coverage would seek to serve a large population above the 45th parallel and a geostationary system would need to be supplemented with repeaters, sources said.

ContentDepot Not Yet on Its Own

WASHINGTON The Public Radio Satellite System is continuing dual operations of ContentDepot as well as its legacy program distribution system through at least April. A prior extension was through February.

Scott Hanley, chairman of the Distribution/Interconnection Committee of the NPR board, said in a message to pubcasters that PRSS and station personnel are on a big learning curve. Some portions work well but others do not, he said.

Stations have reported problems with scheduling conflicts, programs with inconsistent filenames, late or undelivered programs, time-consuming data entry and a significant increase in staff time to ensure the system is running properly.

"It is not a quick process, as we want to build systems that will be effective and consistent for the long haul," Hanley wrote.

The biggest challenge has been the discrepancy between capabilities of the Portal, the user software interface, and operational realities at stations. Some stations are staffed 24/7, others have few paid staff and rely heavily on automation. Stations use various automation systems with differences that affect "ConDep."

Sources report having to subscribe to upwards of 400 program "events," with just the sheer volume leading to missed feeds, for example.

Some observers said the rollout is a case study in how a big technological change can be fraught with problems.

Although some problems will be addressed through training of station staff, more time is required to update the Portal code and for ContentDepot to realize its potential, sources believe.

Bridge Projects Subs for Satellite

GLENDALE, Calif. Bridge Ratings predicted that retail softness in the satellite radio sector would continue in the first quarter of this year.

The research firm doesn't think retail sales equaled expectations for the end of 2006, despite the holiday buying season.

Satellite radio added 4.5 million subscribers in the fourth quarter for a combined total of 13.6 million. That was down from the satcasters' original estimates of 15 million by end of '06, though the number marks a 48 percent increase year over year, Bridge found.

Some revised industry estimates put 2007 subscription gains for Sirius and

XM at 5.3 million to 5.6 million, which would bring the total by year-end to approximately 19 million, and first quarter gains of around 1.1 million.

News Roundup

HD RADIO: Bridge Ratings foresees a slower growth curve for HD Radio "unless the industry can overcome significant consumer resistance due to issues related to the benefits of HD Radio." Bridge lowered its estimate of the number of HD units that will be sold through the end of 2007 to 1.5 million, and to 12 million by 2010.

XM RADIO ONLINE is included with the new Microsoft Windows Vista operating system. XM users get it free; non-

subscribers can sign up for a three-month trial of 80 channels online for \$7.99.

The satcaster also reached extended deals with Honda and Toyota, the former through 2016 and the latter 2017. Honda projects production of 650,000 factory-installed XM radios in '07 vehicles. Toyota expects annual production of XM-equipped Toyota and Lexus vehicles to exceed 1 million by 2010.

And the Washington Post reported XM called an exterminator to eliminate rodents from its Washington headquarters. They are chewing on the cover of fiber optic cables and took a production studio out of commission, according to XM Senior Vice President Dan Turner in an internal memo. Food and drinks have been banned from studios.

— Leslie Stimson

The cash-machine formerly known as RevenueSuite returns to the airwaves as Google AdSense for Audio.

RevenueSuite, a source of additional income for radio stations, promises to be even more so in this incarnation as AdSense™ for Audio, thanks to the power of Google technology. And when you combine that with the industry's most innovative station automation products – SS32™ and Maestro™ – you'll understand why hundreds of stations in markets of every size are starting to talk about the future of radio stations with renewed optimism.

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WIRED FOR SOUND

Get to Know Coax Snake Cable

by Steve Lampen

What? Never heard of coax snake? Sure you have!

You might even be using some on a fancy computer monitor. It's also called "RGB" or "VGA" cable. This usually comes in three, four or five coaxes in a bundle, although you can also get six, eight, 10, 12, even 16 coaxes in some styles.

Besides all that video stuff, this cable offers a number of interesting audio uses.

First is unbalanced audio. Many of these cables take RCA connectors, since many televisions now use that for RGB

inputs. Of course this is overkill for analog audio, but it looks nice; it is low capacitance; and you can even get six-channel cable to do 5.1 surround!

If you are a musician in a rock band, the eight-coax unbalanced snake could be just the thing for multiple instruments, or multiple recording feeds to that inexpensive mixer you bought.

Digital

Another application is digital audio, starting with S/PDIF consumer digital audio.

Again, we're talking RCA connectors. I suppose it's rare that any home theater sys-

tem would need to send multiple S/PDIF signals from place to place. But S/PDIF stuff is getting pretty good and so it is showing up with alarming regularity in the professional audio or broadcast world. This is all 44.1 kHz sampling (5.6448 MHz bandwidth), and two channels per coax.

If you feed true AES digital audio (converted to unbalanced) it will easily feed a S/PDIF device. You might have to kluge a BNC-to-RCA adaptor or buy one at the local electronics store. You might want to check levels, since S/PDIF runs at 0.5 volts, and true AES runs at around 5 volts (think of 5 V supply rails). Old AES

devices could run as high as 7 volts. Overdriving digital devices is not like analog. There is no such thing as "headroom" in digital, just bit errors and path failure.

Manufacturers who make those AES converter/baluns for digital audio (XLR to BNC) often make versions with pads in them that "pad" the signal from 5 volts to 1 volts. ETS (www.etslan.com) makes an especially high-performance, yet cost-effective, version. This will, at least, get you closer to the S/PDIF requirement. You can't just put on a voltage-divider pad, like you could for analog audio. You have to stay at the correct impedance, 110 ohms on the balanced side, 75 ohms on the unbalanced side. Doesn't matter which side has the pad.

In the professional digital audio world, we have AES3-id, professional digital audio on coax. Then it would be common to carry multiple channels, so the high coax count cables might be just what you need. Just like the twisted pairs, the gauge size rules the distance. The chart shows various "sizes" of coax cable and the distance they will carry digital audio.

Type of Cable	Center Gauge	Distance (6 MHz)
Mini-coax	23 AWG	1992
RG-59 Type	20 AWG	2911
RG-6 Type	18 AWG	3467

And this brings up another point about S/PDIF.

The source voltage of S/PDIF is 0.5 volts (not the 2 volt test signal of true AES). And the minimum receive voltage is still 0.2 volts (200 mV). So, for home installs, you will have to divide the distances above by four. So the small, common RGB stuff will only go 500 feet with S/PDIF.

Five hundred feet? How big a home do you have? I don't think even Bill Gate's home is 500 feet.

Even the RG-6 is available in bundles of 10. And just look at the distance! More than a kilometer. So if you need to send 20 channels of digital *to the next town* ... Well, maybe I'd be using fiber optic cable by then.

That 10-pack RG-6 is huge and expensive. But just a three-foot sample, under the seat of your car in a dead-end alley on a dark night could come in handy.

Of course, the smaller stuff, the type you are probably using right now, is a lot cheaper and easier to use. And you'll notice that at 2,000 feet, it's no slouch for distance either. So you can use the same cable for RGB (your HD monitor), VGA (your computer monitor), unbalanced audio (your 5.1 surround sound), your digital audio (S/PDIF). Wow!

There's also a new style of coax snake that is "jacketless," which my employer Belden has patented under the name Banana Peel. All the coaxes are extruded and stuck to a central core. They can then be individually "peeled" off. This technique uses no glue in the process, so there is no residue after you've peeled it off, and no extra plastic you have to shave off with a razor blade. Just three, four, five or six coaxes, in mini and RG-59 sizes. Six is the maximum that this technique can join. Sound appealing?

Past articles in this series are archived at radioworld.com.

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

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Tell us about your job change or new hire. 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.

North American Mobile Systems promoted Cesar Murillas to the position of chief engineer. His previous title was system engineer. NAMS says Murillas has been working with The Durst Organization, FDNY, EMS and other first responders in implementing an advanced radio communications system, under FDNY control, into eight major buildings owned by Durst.



Cesar Murillas

Frank Sippel and David M. Skalish were promoted to chief engineer positions at three CBS Radio stations in Philadelphia. Sippel took the reigns at KYW(AM), while Skalish serves as CE at both WOGL(FM) and WPHT(AM). They assumed the duties managed by Jan Kowalczyk, who retired in October. Sippel had served as staff and transmitter engineer for KYW since 2000. Skalish began his radio career as a studio operator at KYW in 1982, and left in 2000 to join WPHT as technical supervisor.



Frank Sippel



David M. Skalish

Nine engineers were sent by the Arkansas Broadcasters Association for a weeklong training on RF systems at the Harris Broadcast Technology Training Center in Quincy, Ill.: Ron Purtle, Jim White, Keith Carter, Rolin Lintag, Norris Self, Steven Gay, Randall Hilton, Dale Galloway and Tim Tibbs.

ATI Group appointed Art Constantine director of sales. He has held senior sales and marketing roles with APT, Musicam USA, Modulation Sciences, Fidelipac, IMAS Publishing and Moseley.



Art Constantine

John Whyte joined Nautel to head its worldwide marketing efforts. Prior to this position, he worked with Mixel, where he was responsible for the global strategic direction of Internet mobility applications.

Jim Thomason joined Broadcast

Electronics as southeast regional sales manager, responsible for the company's studio and RF product sales for the five-state territory of Florida, Georgia, Louisiana, Mississippi and Alabama. Thomason had been district sales manager for Harris.

Premiere Radio Networks Editorial Director Ira Robbins added vice president to his title. He continues to oversee Premiere music and entertainment news prep services, as well as the online audio archive.

Disc Makers' board of directors named Tony Van Veen as the company's new president. Van Veen joined Disc Makers in 1987 as a sales and marketing associate. He is the first person outside of the Ballen family to lead the com-

pany. Morris Ballen had been president since 1972. He now serves as chairman.

NPR's Juan Williams conducted an interview with President Bush on Monday, Jan. 29, in the Roosevelt Room of the



President Bush speaks with Juan Williams of NPR during an interview Monday, Jan. 29, 2007, in the Roosevelt Room of the White House.

White House.

Also, NPR News was chosen for a 2007 Alfred I. duPont-Columbia University Award for its coverage of Iraq. Thirty journalists were named for the award. They are: correspondents Deb Amos, Lourdes Garcia-Navarro, Anne Garrels, Michele Kelemen, Peter Kenyon, Philip Reeves, Mike Shuster, Jamie Tarabay, Ivan Watson, Eric Westervelt and Steve Inskeep; producers Tom Bullock, Dianna Douglas, Neal Carruth, JJ Sutherland, Jim Wallace and Robert Duncan; Mideast editor Doug Roberts; senior foreign editor Loren Jenkins; Managing Editor Barbara Rehm; and NPR Baghdad bureau staff Isra Rubaie, Abdulla Mizead, Kais Jalele, Saleem Amer, Sa'ad Qasm, Vahram Epikan, Ahmed Hashim, Ahmed Qusay, Abu Ali Salman Daoud and Abu Hider Abdul Qatar Ahmed.

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Familiar Towers Fall at Last

Four Months of Waiting, A Few Minutes of Cutting: WOR's Towers Come Down

by Scott Fybush

There's no doubt that Tom Ray and the rest of the staff at New York's WOR(AM) would have been much happier if their old three-tower directional array in Lyndhurst, N.J., had gotten demolished right on schedule last September.

After all, they'd invited clients and the entire New York media out to the Meadowlands to watch the towers come down, only to have to explain afterward that the proper permits hadn't been pulled by the developer who's turning the old site into a luxury golf development.

You don't get to be in radio in the nation's biggest market without understanding how to make promotional lemonade out of lemons, though. So once the permits were obtained and a new date was picked, WOR was all ready to put on an even bigger show.

On schedule

Thursday morning, Jan. 11, wasn't quite as warm as that balmy day in September, but it was just as sunny as the live trucks came bumping down the dirt road to WOR's new site in East Rutherford, half a mile or so north of the old towers. This time, they had company: up in the sky, news choppers from

crowd as the top of the westernmost tower began to tip over. Cameras began clicking off a staccato tempo as the upper two-thirds of that tower leaned over, then crumpled in the middle and fell to earth.

Meanwhile, the southernmost tower began its descent, bowing towards its falling partner before doing its own crumple, bending over and disappearing

then much more quickly as gravity finished the job, bending again near the base to form a giant arch before neatly spiraling into itself and hitting the ground.

Only then did the crowd break into applause, celebrating the successful end to a long construction process.

While the TV crews sped away, others in the audience had to go see what the wreckage looked like, and within half an hour of the demolition, a small knot of curious engineers — including several who'd helped to build the Lyndhurst site

ers without even slowing down.

What about those videos? At least one New York TV station carried its helicopter coverage live, and all the rest showed it repeatedly on later newscasts that afternoon and evening. It made several networks' feeds to affiliates, showing up in local newscasts all over the country that night.

Unsurprisingly in 2007, the collapse was available in several different versions on YouTube within a few hours, too, and careful examination of the server logs would no doubt show that most of the hits on those videos were coming from engineers' desks all over the tri-state area, as they viewed the towers coming down over and over again.

Not quite right

It's too bad the engineers didn't have a hand in writing the news copy that accompanied the video.

Several of the stations — and one big newspaper article the next morning —

The whole thing took about 20 seconds, and from the viewing point a half-mile away, it happened in almost eerie silence.



10:01: The first two towers come down.



Tom Ray with the crumpled remains.



Old tuning house.

Channels 2, 4 and 5 hovered over the old towers to capture their final moments.

On the ground, WOR was once again throwing a party. Owner Rick Buckley and the rest of Buckley Broadcasting's top management were on hand, and from a card table next to the new transmitter building, News Director Joe Bartlett was ready to broadcast the event live. Engineers from almost every station in town — and a few from as far away as Massachusetts — were there, too, lined up with cameras and tripods in a long row along the road looking south.

At 11 a.m., Bartlett was on the air with the countdown. Right on schedule, 60 seconds later, tower workers cut one set of guy wires on each of two of the old towers.

"Here goes one" was the shout in the

from view with a puff of dust as it hit the swamp.

The whole thing took about 20 seconds, and from the viewing point a half-mile away, it happened in almost eerie silence.

Circular pattern

Those within earshot of the live broadcast heard Ray explain to Bartlett that the third tower would remain standing for a few minutes as the crew emerged from hiding and made its way across the field to cut those guy wires. The rest of the crowd watched, waited and made jokes about how WOR finally had the nondirectional signal it always wanted.


At about 11:08, the last of the 40-year-old, 690-foot towers began tipping from its midpoint, moving slowly at first and

in the 1960s — were climbing over the fallen towers to examine the aftermath at one of the tuning houses. Bits of shattered base insulator were salvaged as souvenirs; more bad jokes were made about salvaging sections of towers to use as homebrew ham radio towers (in fact, they were scrapped within days for the steel); and memories were shared about better days at the site.

A few postscripts: first, for all the worries that had been expressed in September about what effect the sight of the collapsing towers might have on drivers passing by on the New Jersey Turnpike, later viewings of the many videos of the collapse showed that the Jersey drivers were their usual unper-turbable (or perhaps just unaware) selves, speeding blithely past the tumbling tow-

seemed to believe that the new "digital" towers were part of WOR's conversion to HD Radio, when in fact the old towers had been churning out an HD signal for several years without incident. One eager young TV reporter breathlessly announced that WOR would soon begin construction on "a new digital tower site nearby," apparently unaware that the building behind her in her standup was that very transmitter site, long since completed and on the air.

They got the call letters right, though, and after years of construction headaches, Tom Ray finally got to breathe a sigh of relief — and figure out what could possibly top this show.

Scott Fybush is a frequent contributor and authors the column "Travels With Scott." 

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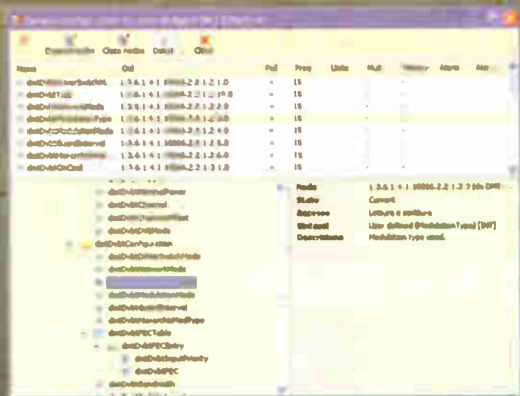
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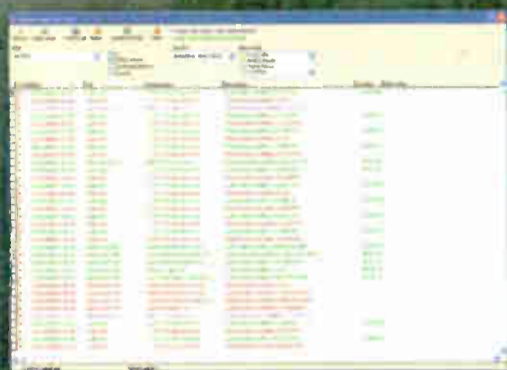
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WMMR's Pierre Robert: 25 Years of Rock

Despite a 'Disaster' of a First Night, Gentle Legend Has Lasted in Philly

by Ken R.

Unlike many in his profession, Pierre Robert (pronounced roe-BEAR) never wanted to be on the air.

"I didn't grow up practicing to be a DJ. For me it was always about the music. I used to go to see all those great concerts on Sundays at Winterland in San Francisco," he said. "The Grateful Dead, Crosby, Stills & Nash and Bay-area bands like Jefferson Airplane. Black lights everywhere!"

But while folk, punk and hair bands have come and gone, Robert has been on the air consistently for 25 years at rocker WMMR(FM), Philadelphia. In an industry in which most earn seniority after a few years, his longevity is remarkable. The station celebrated this milestone with "WMMR 25 Years in 25 Days," during which taped interviews and highlights from his career aired beginning Nov. 1. Festivities ended with a rock concert by The Who at Wachovia Center on Nov. 25.

Eager to do anything

Robert started in radio at KSAN(FM), a pioneering free-form station in San Francisco.

"I became an intern there around 1979," he said. "When they cancelled the intern program, I kept showing up anyway. It was odd jobs, answering the request lines and anything else people wanted me to do. Eventually the general manager told me I was going to be paid. It was only about \$3.50 an hour but I thought I was rich."

Robert's boss sent him on an errand to fly down to the Metromedia station in Los Angeles to hand-deliver a tape.

"I did it and got a raise to \$4.50 an hour. Then one night someone who was supposed to go on the air didn't show up so I called the DJ on the air, 'Lobster,' to ask about the problem and he asked me what I was doing right then. I told him 'nothing' and he said, 'Come on in, you're going on the air.'"

Although he was never on the air full-time at KSAN, Robert got the opportunity in 1981 to move to Metromedia's Philadelphia station.

"My first night on the air at 'MMR was a disaster," he said. "I started to play a Neil Young album and bumped the needle on the record and whatever song I started playing wasn't the song that I ended up playing."

People who need people

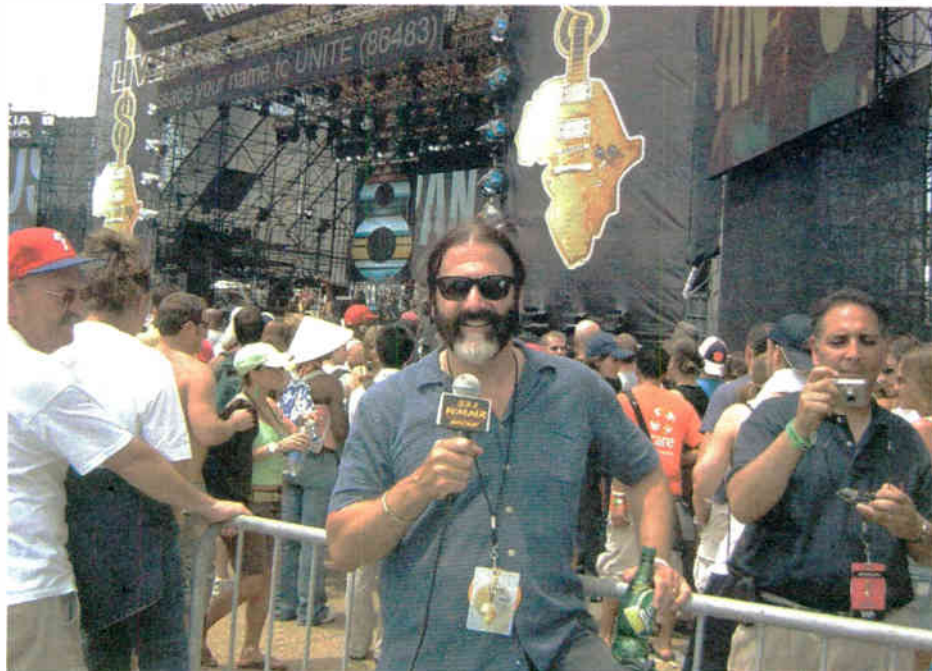
"I love doing interviews," he said. "A highlight was talking to Mick Jagger for a half-hour in a hotel room in Toronto. Then (fellow Rolling Stone) Keith Richards walked in and we talked another

half-hour! They were both funny and nice and the moment felt surreal because they were living pieces of history. They are still performing brilliantly."

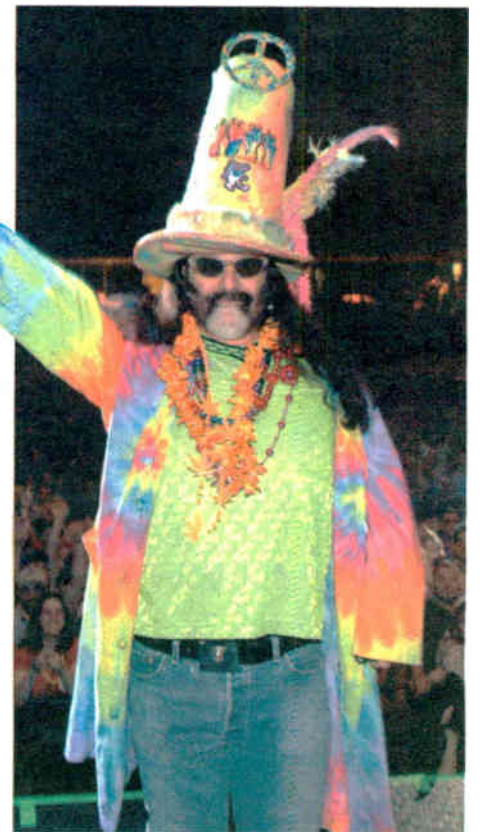
Whether he's talking to a rock star or just someone in the audience at a con-

cert, Robert sees himself building a bridge between generations.

"I want to get the older listeners and expose them to younger bands," he said. "I want to take that young guy who doesn't know any music from before the last few years and play the Eagles, CSN&Y or the Grateful Dead for him."



Robert's activities include coverage of the Live Aid Concert in 1985 and Concert for Amnesty International, broadcasts from numerous Rolling Stones tours and support of local charities. Shown, a Live 8 concert in 2005.



Music aside, Robert has a gentle sensibility that keeps him in touch with his audience.

"I think of myself as a waiter who knows how you like your coffee," Robert said. "I certainly wouldn't be comfortable making fun of listeners on the air or doing racist/anti-religious/homophobic stuff. I don't get that. I would rather talk about what's happening in the communi-

See ROBERT, page 34 ►

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GUEST COMMENTARY

Get the Most Out of the E-Personality

by John Lund

E*Trade, e-commerce, E-Ticket ... and now there is the e-personality!

Virtually all stations embrace the digital technology of voice tracking for many dayparts outside of morning drive. Some talents voice track a five-hour show in less than 90 minutes so they can perform other tasks like production, music scheduling, show prep and promotion appearances.

The challenge for today's "e-personality" is to treat the process of voice tracking not as simply work on an assembly line, but whether in the studio or not, to come across always as live and local on the air. The talent should sound like he/she is there for the audience.

Consider these tips on creating an entertaining show — whether voice-tracked or live — to make a great listener connection. The following is also an excellent list of programming basics.

Know Your Target Audience

With whom are you communicating? What's their lifestyle? What's their age? Where do they live? Create a "typical listener" and speak one-to-one with him or her when recording your tracks.

Provide localism and "relatability." Ask questions such as the following from the Lund talent checklists:

What is my target listener doing at this exact moment? Who are the political leaders in the market? Who are the town characters? What are the actual beginning and end times for "rush hour" in your market, where do jam-ups most likely occur and how often do they actually happen?

Understand the Station's Position

How is your station defined in the minds of the target audience? What benefits does it offer to listeners? How's it different from the competition?

Every member of the staff, especially the air talent, should have a solid knowledge of the one true station position. Everyone must be selling the same idea.

Practice Arbitron Basics

Voice tracking should sound like it is a live shift. Getting cume and maintaining quarter hour shares depends on these rules of the ratings game:

Sell the station name. Deliver the dial position and station name like you were leaving your name and phone number with a receptionist. Say it as though you're speaking the name for the first time. Put special emphasis on the name. Selling the name with sizzle and enthusiasm helps

build recall with Arbitron diary keepers.

Tease ahead in every stopset. Give a reason for the listener to stay tuned. Pick one programming element coming up and sell it decisively. Focus the listener on anticipation, and provide a "payoff" within a realistic listening duration. Watch "Dateline," "Entertainment Tonight," "20/20" and your local TV news for examples of compelling teases. Make promote-aheads listener-focused to move listeners effectively to the next quarter-hour, hour or daypart.

Connect With the Music

This essential connection may be difficult when voice tracking, but it's not impossible with the right automation equipment and music scheduling system.

Match delivery to the music. An up-tempo song should be back-sold with the same energy level as the music and be faster than back-selling a slow song (using a lower-key delivery).

Rid yourself of "announcerish" terms in back-selling ("and that was") and front-selling ("right now it's," "here's," etc.). Relate to the listener when back- and front-selling. Use music passion, artist and song information, topicality and relatability when doing intros and extros.

Sell the music. Successful restaurants employ servers who not only know their menus but are enthusiastic about the food. One's enthusiasm for the music is contagious, as listeners mirror your passion for the music. The PI audience is attracted to "believers" of their chosen format.

Connect With the Audience

Air personalities know their audience and customize their on-air approach around the lifestyle of their listeners. Visit the audience on their "turf" and observe their activities in your show prep.

The Internet is a goldmine of Web sites for possible show prep. The Lund Consultants provide clients with several viable links each month in the "Show Prep Update" supplement of the "Lund Letter" that feature ways to connect with listeners, plus benchmarks and interactive ideas that enhance the show.

Provide discretionary time information. People live for their leisure time. Help listeners plan it with DTI and local relatives. Make each show unique, e.g., Monday is the start of the week, Friday begins the weekend, March is the end of

winter, morning means getting up and off to work, midday is work time, afternoon is go-home time, etc. Reflect the time of day, day of the week (beyond using the crutch, "it's a Tuesday!"), and time of the year on the air.

Reflect "listener usage" activity. How does the audience "use" the station? Provide new ways to "use" it as a complement to commuting, working, relaxing and leisure time activities. Examples: "Taking the kids to soccer practice Saturday morning? Take us along on your car radio!" — or — "Driving around the

mall parking lot on Sunday looking for an open space? Keep us on for good luck!"

Be topical. What is the big event of the day? Gas prices, very windy weather, heavy rain, daylight savings time, the big football game, etc. Everybody goes to work in the morning and meets a friend around the coffee machine or water cooler. After weather, what is discussed? "The Big Event" is what everyone is talking about locally. Give listeners fuel for discussions. Read the daily papers and browse Internet info sites. Whether it's a Big Event news story or a morning show stunt, people depend on the radio for timely information so they can talk about it at work.

See E-PERSONALITY, page 35 ▶

Robert

▶ Continued from page 31

ty or tell people about something I saw on stage. I'm interested in the breast cancer runs, the food drives, things that make people think. We have this friendship, my listeners and myself."

Man behind the scenes

Robert's producer, Jason Fehon, makes up for whatever organizational qualities Robert may lack.

"I'm quite scattered, but I have a vision of how I want things to come out," said Robert. "Jason is the guy who connects the dots for me. That could mean going on remotes, sorting through tapes or figuring out where I left my car keys."

Fehon said that he enjoys his job outside of the spotlight.

"Pierre's not too organized, and he never throws anything away," he said. "For example, he recorded a promo with his mother, who died 22 years ago. He never had a chance to air it and of course it got lost. I was able to find it and that was a big score."

The strength of radio

Robert believes that the radio industry is a work in progress.

"We used to have free-form on FM, then album-oriented rock, which was a reaction to the yelling formats on AM," he said.

"Now FM is conversational. We just share the music like we're going over to a friend's house to have a beer. Satellite radio is like FM was in 1969. It has advantages, but so does local radio because what you hear on satellite may have been voice-tracked two weeks ago. A satellite guy can't say, 'It's a beautiful day today,' or even talk about the weather. He can't talk about a concert he saw last night at the Tower Theater. There is an intimacy about local radio in spite of all the changes that have taken place."

Robert recalled one of his most moving moments.

"In the early '80s no one knew anything about AIDS and there was this group called AIDS Buddies, where you could sign up and get trained during a weekend seminar to become a buddy to someone afflicted with the disease," he said. It was an opportunity to hang out with someone with AIDS and do things as simple as shopping for them, or taking them to the doctor or out for a movie. It was a gift of time, not money.

"One night a kid came up to me at a concert and told me he wanted to thank me. He heard one of my public service

WMMR Re-signs 'Radio Legend'

Calling him a radio legend, Greater Media announced in January that Pierre Robert had accepted a new, four-year contract to continue at WMMR.



"Robert, who recently celebrated a record, 25 years of broadcasting on a single radio station, will continue hosting his daytime show through December of 2010," it stated in the announcement. It quoted John Fullam, vice president and market manager, saying, "Pierre's legendary personality and his passion for music and the city of Philadelphia personifies what connects MMR to our loyal listeners."

Station PD Bill Weston added, "In today's world of automated voice tracking and syndicated, out-of-market air talent, it is a true testament to Pierre Robert's outstanding ability that he has remained at one station through so many changes in the broadcasting business."

WMMR also promoted part-timer Jason Fehon to full-time status as producer for Robert's show.

announcements about the AIDS Buddy program and he signed up and helped someone out who is probably no longer with us.

"So yeah, let's play music, but let's also put some good energy out there. This station is a very successful franchise and I've been lucky enough to be a part of it for 25 years."

Visit www.wmmr.com to hear show excerpts and interviews from Pierre Robert.

Ken R. is a former disk jockey who says he had no discernible talent or ratings during his entire on-air career. He is a frequent contributor to Radio World and can be reached at ken@kenr.com.

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Ownership: How to Get the Dough

And If You Plan Right and Sell Hard, It's Tough Not to Make Money

by Jim Withers

A few issues back we talked about the "why" of owning a radio station (to read the article, visit radioworld.com, click on RW Special Report and scroll to "Real-Life Lessons for Would-Be Owners," Sept. 13 issue).

This time, we'll deal with how. And the first part of "how" is how you get the money.

Whose money?

You really only have two choices: your money or someone else's (including the seller's).

If you use your own money, you will no doubt allow yourself extremely liberal repayment terms. Which is to say, you

will pay yourself back when you sell out. If you use someone else's, the terms will, no doubt, be a little stricter. Furthermore, you will end up paying interest. As an alternative, you might just give up some equity, or ownership, in exchange for the money, but in that event, you will have a "partner," and those relationships can be more difficult to manage than a marriage.

If you borrow the money, you will have to repay it, and with interest. This so-

called "debt service" can be a heavy burden and can make it almost impossible for the station to generate any cash flow. If you use your own money to avoid this burden, you lose the benefits of "leverage" (a topic covered in your Finance 101 book, if you are not familiar with the concept) but this might be preferable to carrying a lot of debt.

It is a simple exercise to "run the numbers" to see what works best, but be careful of your ability to service debt. Just remember, the friendly banker with the capped teeth who tells you how much his bank loves small businesses has a split personality. This minute: little Anakin

Skywalker. Miss a payment: he's your very own Darth Vader.

Lesson #1: Financing the Deal

If you are lucky enough to be able to pay cash for your dream, good for you. But that is a rare thing in my experience. More likely you'll be trudging over to see little Anakin at the bank. Couple of points about that:

First, he won't be thrilled to see you. This is because of the "Security Interest" rules of the FCC. This is really the "Follow the Money" rule.

Basically, the FCC says that whoever controls the money (in this case, the bank) also controls the license and should therefore, be the actual licensee. Since the whole idea is for you to be the licensee,

See OWNERSHIP, page 37 ▶

E-Personality

▶ Continued from page 34

Sound local ... so local that you won't be replaced by a virtual radio jock in Seattle. Localization requires your reflecting the attitude and emotion of the community. Work elements of local interest into your delivery beyond the crutch of city names.

Connect With the Station

This final "connection" may be the most important for ratings:

Cross promote other dayparts and help listeners sample the station for greater TSL. In morning drive, promote at-work listening middays; in midday, promote afternoon listening for the drive home.

Passionately sell station attributes with enthusiasm and by addressing the listeners' needs first. Liners need to start with the benefit, not feature name, as this selling technique catches the audience best. Lead with "what's in it for them," the real benefit.

Use the concept of forward momentum. Television constantly is billboard what's ahead; so should radio. "Dateline" promotes its next show as well as the "NBC Nightly News With Brian Williams" and "The Today Show." More "split screens" with one half showing the credits and the other half promoting the next show are being seen on the networks. Radio needs to take a tip from TV.

Technology is changing the way personalities are delivering more meaningful performances for the audience. But "e-personality" shouldn't mean "electronic personality."

Today's successful air talent must become an "emotion personality" by establishing and maintaining a connection with listeners. This is the crucial bond that differentiates a compelling station from an automated-sounding one.

The author is president of The Lund Consultants to Broadcast Management and Lund Media Research, a California-based radio consulting and research firm. E-mail lundradio@aol.com.

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The Play's the Thing for Kids on WVUD

by Ken R.

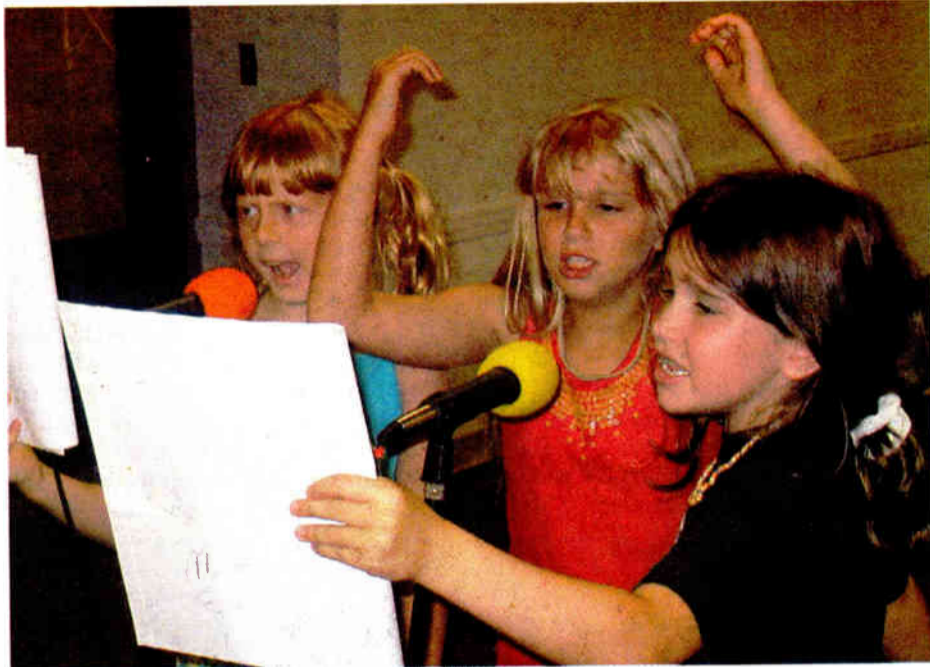
The bombastic yet undeniably talented Orson Welles was a New York radio actor before he moved to Los Angeles and got into the movies. According to www.brainyquote.com, the late director said, "I want to give the audience a hint of a scene. No more than that. Give them too much and they won't contribute anything themselves. Give them just a suggestion and you get them working with you."

That is the rationale behind "Radio Days," a series of plays which are acted entirely by children aged 8 to 12 and broadcast weekly during the summer months on public radio station WVUD (FM), a 1 kW station licensed to the University of Delaware and based in the city of Newark.

"We present them complete with sound effects we create and added music," said Michael Boudewyns, artistic director and co-founder of First State Children's Theater. "It's classic literature with great stories and characters. We get all the drama directly from the books, which we edit down for a 30- or 40-minute broadcast, but we never change or make up dialogue. I think Robert Louis Stevenson is a much better storyteller than I am."

This ambitious project has tackled such famous works as "Treasure Island" by Stevenson and Shakespeare's "A Midsummer Night's Dream."

Station Manager Chuck Tarver provides the rehearsal space, the 9 a.m.



Sunday morning broadcast time and the services of Chief Engineer Dave Mackenzie. Boudewyns, his partner Sara Valentine and their ever-changing cast of young characters provide the rest.

"We have 90 kids enrolled in the program right now," said Boudewyns in 2006. "We take them in nine sessions with no more than 10 kids each per week over the summer, which is a ratio you find almost nowhere."

Theater of the mind

Valentine and Boudewyns spend six hours a day rehearsing with their young

the audience without benefit of visuals.

"For sound effects we have a door, buckets, cans, spoons and whatever else we need to make the story clear and exciting," said Boudewyns. "We tell the kids about Orson Welles and other radio greats. If we have a scene where Nancy Drew is locked in a closet we help them visualize how she would get out."

He also helps kids relate to these dramas by analyzing cartoons, which are just plays wherein actors use only their voices.

"We tell them that Mel Blanc did all those voices for Warner Bros. cartoons, but you would never know it from watching them. Those people like Blanc and even the guys who voice Bert and Ernie on 'Sesame Street' are actors. Language is the thing that separates human beings from animals. It's what we use to communicate."

Naughty and nice

In most dramatic works, the bad guys are the most interesting characters and



A summer camper handles sound effects duty.

thespians, working with their voices and experimenting with sound effect techniques. Each camper has to create three or four distinct voices to cover all the characters in the book of the week.

These plays are recorded, usually one scene at a time, onto a laptop using Sound Forge Audacity software. Multiple versions of scenes are usually done and the best versions are selected and edited together. One track is used for the young voices, one for sound effects added in post production, and a third track for appropriate library music to support the storyline.

Since the camp and WVUD are in the same building on the university campus, technical assistance is never far away and the station is generous with its help. Each student gets a CD of the finished production.

"Many camps do one production that only the parents can see at the end of the season," said Boudewyns. "But at our summer theatre camp anyone can hear a play every week just by tuning in the radio. On Mondays the kids create a 60-second promo for the upcoming Sunday broadcast and WVUD is nice enough to air these promos during the week on a regularly scheduled basis so we can have the families listen for them."

With these weekly plays, the students have to create everything in the mind of

they're also the ones who drive the plot. But not all kids start off embracing their evil sides.

"They're hesitant to be mean at first," said Boudewyns. "But the story gives them permission to speak like that. The kids end up really getting into it."

The camp uses vocal calisthenics, yoga and tongue twisters to help kids become more articulate.

"We train them like marathon runners," he said. "The kids don't have a tool box of life experiences to use so we help them see how high and how low their voices can go. We show them how to become more expressive. When one of them makes a breakthrough, the atmosphere in the room changes and it's great."

Founded in 2004, the First State Children's Theater Company is a year-round establishment that also presents an annual live radio broadcast of "A Christmas Carol" with professional actors in front of an audience. Other plays are also staged and performed on the road. "Radio Days" plays presented on WVUD during the summer are only part of the theater season, but one Boudewyns really enjoys.

"We tell the kids that they will never be Mary Poppins," he said. "But they can pretend to be Mary Poppins and the audience will pretend with them."

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Ownership

► Continued from page 35 that eliminates using the license as collateral against a loan.

Unfortunately, since the license is far and away the most valuable part of the station (around 80 to 90 percent), it will be difficult to raise much capital against the remaining assets.

There are, however, two exceptions: If you are buying an AM with some real estate under the tower, a bank will typically loan 80 percent loan/value on that. The bank will also loan against free cash flow (all of the cash left over after you pay for everything, including taxes), but usually only around 3 or 4 times that amount, and only if they are convinced that you will be able to maintain that historic cash flow.

Unfortunately, the guy selling will most often want 10 to 15 times cash flow, or more, so you will have a slight gap to fill.

This is where "non-traditional" financing comes in. Non-traditional financing is code for Uncle Joe's money, seller financing, your kid's college fund, etc. Uncle Joe's non-traditional money might be pretty cheap, and you can probably borrow your kid's money for free (since you stashed it away in the first place), but some secondary money is very expensive. This is because the bank (if you grovel well enough to actually get a loan) is always first in line for everything you own, including most of your physical anatomy, if you go under. The secondary

guys, having greater risk in their position behind the bank, get more interest — and sometimes, a lot more.

For those willing to brave the federal labyrinth of forms and regulations, the Small Business Administration is a source of borrowed money; visit www.sba.gov. However, the SBA does not do the actual lending but rather acts as a guarantor for your loan, which you get from a regular bank; so again, you will be making a trip to introduce yourself to Mr. Skywalker, your friendly banker. An SBA loan takes a fair amount of time to set up and has certain restrictions, but if you can get one, the rates are very good, since the bank is guaranteed payment by all of us taxpayers.

More on raising capital

No matter what source of funds you are pursuing, your bank, Uncle Joe, etc., you are asking someone to fund your dream. Your dream, not theirs.

You are already convinced that this is a wonderful opportunity. They, no doubt, will need to be prodded somewhat. So be prepared. Create a business plan that accurately forecasts the performance you intend to achieve. Sprucing it up with color fonts and pretty binding is important, too, but concentrate mostly on substance. As for style, so long as it is not two lined pages ripped from a spiral notebook, you should be fine.

Have talking points ready so you can defend your estimates. Expect questions about your experience in running a business, your plans for growing the business and finally, your commitment to the business. If there is the slightest hint, the

slightest hint that you are not fully invested in the deal, sink or swim, win or lose, rich or penniless, no one will back you.

One last thing: Most small businesses (and microbial ones, like yours) fail because they are undercapitalized. That is to say, they do not have enough money saved up to keep paying the bills, particularly the debt service and irritating little things like payroll taxes, when their revenue line hiccups. Your revenue generating ability will fluctuate. You will have months when you were absolutely certain you would book X dollars, and in fact, you end up booking X minus. You must have the ability to make up the difference with a line of credit, savings, set asides, or some other way to keep the lights on. I have always figured out how much money I really, really needed, and then increased it by 50 percent. Tough to do, but I've never gone broke, either.

Bottom line to all of this: be very, very pessimistic — some would say realistic — with your revenue and expense estimates. You always have to pay your debt service first, lest mean old Uncle Joe foreclose on your transmitter; and you must have enough left over to pay your monthly expenses.

The good news is that a radio station is not very capital intensive and the cash flow leverages nicely. There are really only two expense items that go up with increased sales: commissions and music license fees. In other words, once you pay all of the recurring monthly "fixed" expenses, 70 percent or so of every dollar in the door goes to the bottom line.

If you plan right and sell hard, it's tough not to make money.

Lesson #2: The FCC

A lot of people fear the whole regulatory deal and the enforcement issues that come with it. The Rules, although relaxed significantly over the past 10 years or so, are still complex; failure to adhere to them can cost you a lot of money.

Fortunately, you can educate yourself cheaply by simply reading (and re-reading) the Rules on the Web at www.gpo.gov. That is the site for the Government Printing Office; Title 47 of the United States Code of Federal Regulations, which deals with all Federally Regulated Communications, is accessible from that site.

Zero in on Part 73 and start reading. AM Rules start at 73.11, FM starts at 73.201 and Rules applicable to us all — filing requirements, etc. — start at 73.1100.

A note of caution: few of us would sterilize a kitchen knife and operate on ourselves. Navigating your way through the nuances of FCC minutia is fairly complicated. It would not hurt to find a good FCC attorney to check your work, if you choose to do it. A simple way to find an attorney is to ask someone else in the business. Anyone who has been an owner will have one or more recommendations.

Assuming that you've found the station, found the money and negotiated the deal, and it has all passed muster at the commission, you are now an official station owner. And now that you own it, you've got to run it. More on that next time.

Jim Withers owns and operates KSIX(AM) in Corpus Christi, Texas. Reach him at (314) 345-1030 or by e-mail to jim@koplax.com.

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Contests, Stunts and Tragedy

Tragedy struck in Sacramento when a contestant died in a radio contest called "Hold your Wee for a Wii."

As most everyone in the industry knows by now, about 18 contestants vied for a Nintendo Wii game console; the winner was to be determined by how much water he or she could drink without going to the bathroom to relieve themselves.

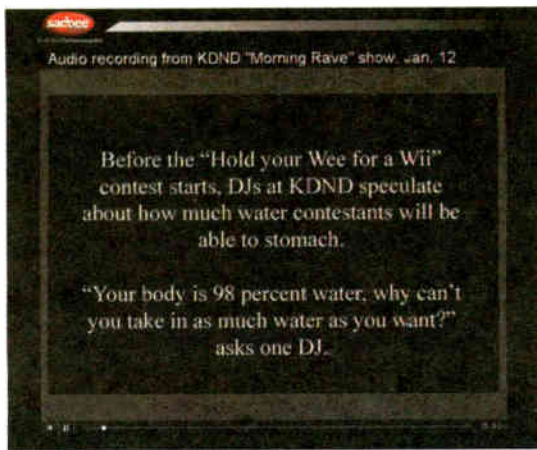
Witnesses say Jennifer Lea Strange, age 28 and mother of three, may have put away as much as two gallons of water. According to news accounts, at one point she said, "They keep telling me that it's the water. That it will tell my head to hurt and then it will make me puke." A caller to the morning show warned the DJs that the stunt was potentially deadly. One of the DJs responded, "Yeah, we're aware of that," and another chimed in, "Yeah, they signed releases, so we're not responsible. We're okay."

Ms. Strange came in second place, winning tickets to a Justin Timberlake concert. She died the afternoon of the stunt. Staffers were fired and now the lawsuits begin.

Blame game

People outside the radio industry have asked me repeatedly how such a stupid thing could possibly have happened. They seem surprised when I reply that we're lucky we don't hear about such tragedy more often.

We can't state here who ultimately was to blame in the situation at that Entercom station; others will be asked to make that assessment. But we can use the situation to reflect on policies at our own stations.



The KDND contest and the ensuing death of Jennifer Strange generated national news coverage. The Sacramento Bee posted an audio recording of the morning show on its Web site, with text explanations.

Market managers, general managers, program directors and marketing directors are senior staff charged with protecting their listeners and talent from possible injury or death. Speaking generally now, too often one of them is likely to pass the blame to the next.

And here's how the blame game works: The morning show has high ratings, big egos and a large share of voice around the station. If the show players discuss risky ideas (stunts) with anyone, it's most likely going to be a marketing/promotion director or a program director. The day-to-day mission of any of these managers is to do whatever they can to assist the morning show in executing a plan. So when they throw up obstacles, the morning show typically balks, oftentimes with a heavy hand.

The next thing you know, these managers are branded as "spineless," "visionless" or worse. Then the general manager/market manager sides with the

talent because that's the power base that delivers the ratings.

Once this game plays out once or twice, the entire team of managers is in trouble. By failing to set a precedent of appropriate boundaries for morning show madness, the Powers That Be are not in power at all — the morning guys have their little stunt wrapped up and ready to go, complete with the heady feeling that they can do whatever they want.

The horrible part is that in the big picture, this isn't about staying employed or being a popular manager. This is about preventing unnecessary risks that can have tragic consequences.

Control trap

Again, I don't know how the Sacramento situation began or who will be found responsible. But let's not miss the opportunity to think about it.

How can a staff avoid a control trap created by the very show or personalities they've been hired to support?

It starts at the top. The GM/market manager has to support his or her line managers when they believe that the brakes must be applied to a stunt or contest. Even if the GM/market manager is spineless and won't comply, that doesn't abrogate the necessity of a line manager to speak up to a corporate authority.

In turn, this means that companies need to have a method in place whereby a line manager can call to report a situation — without fear of local reprisal from the GM/market manager who isn't doing anything about the situation.

I've won some and lost some when I've spoken out about potentially tragic situations. I won when I refused to allow a GM to close down an outdoor concert due to a passing rainstorm. The crowd was already wasted from the cheap beer the charity had been selling all day.

Promo Power



by Mark Lapidus

There was no lightning, only rain. To shut down the show before the main act without waiting at least 30 minutes may have created a riot. The GM threatened to fire me, but I held my ground. Fortunately, the sun came out in 15 minutes and the incident was forgotten.

One that I lost involved not guarding a creek that ran adjacent to an outdoor concert the station was doing. Neither promoter nor station wanted to spend the extra money on safety patrol. In the late afternoon a drunk concertgoer dove into the creek, slammed his head on a rock and broke his neck. The station wasn't named in the subsequent lawsuit but the promoter went out of business.

Now is a great time for senior radio managers in every market to have an open discussion about this terrible contest incident. Discuss the steps you need to take to ensure that a similar situation won't occur with one of your stations.

Confronting the issue takes courage. Your top-rated morning show will inevitably find the discussion threatening, amusing or both. Do you care enough about people to take a stand?

The author is president, Lapidus Media. Contact: mlapidus@cox.net.

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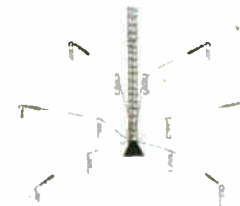
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Lift an Ordinary Campaign to a New Level

How to Direct On-Air Talent for Better, More Believable Commercials

by Jeffrey Hedquist

They're talk show hosts, interviewers, DJs, experts, news people, sports commentators, even sales and traffic people. They're good at their jobs, and then we recruit them to be in commercials.

Suddenly they have to act. Sometimes they can pull it off. Often they can't. What to do?

At some stations, on-air talent isn't allowed to be actors in commercials. We're going to assume for the sake of this article that no such restrictions exist.

These few words won't make you an experienced director, nor will it turn your on-air talent into complete actors, but it will give both of you tools to improve the sound and effectiveness of your commercials.

You: the director

Directing is inspiring, coaching, encouraging, cheerleading, getting inside the psyche of an actor (I'm referring to every voice talent in a commercial as an actor) and planting seeds so they'll bring words on a page to life. Good directing improves the final production and improves the skills of the actors.

Tips:

- I'm assuming your talent pool consists mostly of the lucky folks listed in the first paragraph. Instead of telling them how to read the script, tell them why you wrote it the way you did. Let them bring their experience to it. You may be pleasantly surprised.

- Listen to how people speak. The pitch changes that occur when they're happy or depressed, the audible tension when they're under stress, the sound of an angry person speaking with a tight jaw, are all reference points for a good director to have. As your talent moves through the commercial, keep asking yourself, "Is this how a person in this situation would sound?" That's the mark you should be nudging your talent toward.

- Asking the talent to emphasize too many words can make your commercial sound too much like a pitch and not like a conversation. Sometimes just a small rise in the inflection of a word will make it stand out.

- Be confident of the performance you're anticipating, so you don't confuse and frustrate your talent by changing direction after each take.

- Try to make the session fun and keep your talent relaxed, even if you and the client may not be.

Director prep

First, you need to understand the script and what you want the actor to accomplish. A way of clarifying this for yourself is to listen to a performance from a commercial, film, video or TV show that you'd like your actors to emulate in feel, tone and attitude. That gives you a target to aim at.

Don't ask the actor to produce a feeling or you'll get something forced. Tell them what you'd expect the listener's reaction to be — to cry, to laugh, to reminisce, to be energized, etc.

What's the underlying attitude and agenda of the person speaking?

Give your actors information, so they can understand where each character is coming from. Describe the character(s) physically, psychographically and sociologically.

Explain the "back story" — the relationship and history of the participants. Are they coming into this



Photos © Gabriela Trujillo



People sound different depending on how and where they are sitting or standing. Put that fact to work as you direct your radio talent.



Photo © Darren Green

scene after a fight, or after making love? After a life-threatening experience or a spiritually uplifting one? Have the talent emotionally experience the moments before we enter the scene, either by imagining themselves there, or by pulling the appropriate emotions from their own experience, so they're in character from their first breath. Have them ad lib or "read into" the scene. Even the tag reader should hear what's gone before to understand how to read the tag.

If the final commercial will be produced with sounds in the background, often it's helpful to play those sounds over their headsets while they record. If they hear the traffic, or the sounds of a mountain stream, or the fireworks, or the loud music at the club, it will help put them "on location" so they'll speak with the appropriate volume, projection or intimacy.

Encourage the actors to make notes on the script. Hopefully those scripts are in upper and lower case and double-spaced, with wide margins.

Your actors will thrive on constant encouragement. Praise them when they've done a good take. Don't let the talent stay isolated for any length of time without giving them feedback, especially when it's positive.

You want to help keep their spirits and energy up. Allow them to make adjustments bit by bit, don't give them a litany of changes all at once and expect these to be absorbed. Often, letting the talent hear a playback of a take is the best way to get them to adjust.

The most believable acting is reacting. Chuck Blore has used a dialogue technique in which each actor has a partial script — only the other actor's parts. Each actor is then forced to react to what the other person says, instead of "reading" the written lines. A few times through using this technique may be all that's necessary to get them to sound more spontaneous than before. Record these and play them back to your talent as a guide.

In most cases, you'll want to avoid giving line reads. Start by letting them interpret the script without much direction from you to see what they do with it. This will give you an idea of how close their initial read is to what you want.

Line readings are a last resort, but you must be able to give accurate ones, or risk getting a mimic of a bad read. With some voice talent, a line reading is the only way to help them find their way.

These are guidelines. Develop your own comfort-

able style. Be observant to see what is effective and what isn't and continue to use the techniques that are.

Quick-fix directing

Here are some simple ways to get those voices to sound like real people, drop the "announcer" artifacts from their voices, connect with the script and with the other actors (including the person doing the "voice over") in the spot (if any), and connect with the listener.

To get a more natural read from someone who is "announcing," sounding like a jock or a newscaster, or just not delivering the script with meaning:

- Have them take off their headphones. There'll be much less of a tendency for them to listen to their voices and a better chance they'll speak to the

See TALENT, page 40 ▶

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Talent

► Continued from page 39 listener.

• While they're on mic, have them hold a phone receiver to their ear and talk into it as if they're talking to someone on the phone. You can actually phone them in the studio and talk with them as they're delivering the copy. This will encourage them to relate to one person, that individual radio listener.

• Go into the studio and position yourself so that you're facing the talent with the microphone between you (and maybe only 10 inches separation). This technique, along with a couple of breath mints, will ensure they don't over-project.

If your actors are supposed to be in bed, have them record while lying in bed, or at least on the floor.

• If you're not getting what you want after a few takes, have them put the script aside. Ask them to tell you the story in their own words, as if they're talking to a friend. Keep recording. This little improvisation may give you a more believable spot. At the least, you'll have something to play for them as a reference for a more conversational approach.

You need to get out more often

Get out of the studio. Go on, pack up some portable equipment, gather your actors and go to where the spot is situated — in a car, by a lake, at a breakfast table, in a bathroom, kitchen, field or a forest. The sound will be more natural. It'll stand out on the air because it won't have that dry "studio" sound.

Your actors will sound more authentic. The ambiance of the location will affect their performances.

If your actors are supposed to be in bed, have them record while lying in bed,

or at least on the floor. It loosens them up, allows them to better relate. In some locations they may have to speak up to overcome background noise, or whisper more intimately if they're nose-to-nose in a closet.

Whether your voice talent is in a show-stall, sitting on a couch, standing on a step ladder pretending they're painting — each position places the diaphragm in a different position, so the voice will sound different.

Are they talking while dancing? Have 'em dance. Are they wrestling, tickling, running, walking, climbing or hiking? Then have 'em engage in those activities while they act out your script. Put that traveling couple in the back seat of a car while someone drives and someone else engineers the recording.

If the place has background noise, you'll have to monitor your takes carefully, so the ambient sound doesn't overpower the voices.

Trying to get a natural-sounding story from your client? Clip a mic on her to capture her words as she walks around her restaurant, store, warehouse, parking lot or dealership. Some people think and speak more clearly from the heart when they're moving.

Don't just describe the new trail system through your town; put someone on a bike, wire them for sound and record their observations as they ride the trail.

Once in a while you can lift an ordinary campaign to a new level by going out there in the world.

Jeffrey Hedquist says he continues to learn from being on both sides of the microphone at Hedquist Productions, Fairfield, Iowa. E-mail jeffrey@hedquist.com. For a free subscription to his newsletter visit www.hedquist.com.

STATION SERVICES

Edelman Available For Syndication

ABC Radio Networks is syndicating "The Ric Edelman Show."

It has been heard for 16 years on news/talk station WMAL(AM) in Washington; it now has debuted in syndication on seven others including AM outlets WABC in New York, KABC Los Angeles, WLS Chicago, KSFO San Francisco, WBAP Dallas, WJR Detroit and KPRC Houston.

Edelman says the program is not about money or Wall Street but "helping people achieve their goals — buy a home, pay for college, prepare for retirement, care for elders, get out of debt and enjoy financial security."

Barron's has ranked him among America's 100 top financial advisors three times; he has authored five books on personal finance.

John Rosso is senior vice president of affiliate relations for ABC Radio Networks.

For information contact ABC Radio Networks in New York at (212) 735-1700.

Arbitron Aims to Enhance Beer's Placement

Arbitron now offers the "21+ AQH Audience Composition Report."

The Web-based audience information service is aimed at advertisers, agencies and radio stations; the research company says it provides ratings information that clearly defines whether the audience to a particular station meets beer industry guidelines for advertising.

"The Beer Institute has established guidelines to limit beer advertising on radio to stations and dayparts on which

70 percent or more of the audience is 21 years of age and older," Arbitron states. "The Web-based system profiles the age 21+ average quarter hour audience composition of individual stations for standard dayparts, as well as hour-by-hour."



Data for the report releases concurrent with Arbitron respondent-level data. This will provide beer marketers with information to help ensure compliance with the 70 percent standard and enable them to make appropriate schedule adjustments, the company said.

Arbitron is providing the service at no additional charge to current subscribers.

For information and contacts visit www.arbitron.com.

SeeSpotRun Is Built Around Ad Verification

SeeSpotRun is a service for advertisers that provides tools for monitoring radio advertising in real time. Supplier Mediaguide says it also more accurately gauges spot effectiveness.

The service is accessible through a Web portal and "designed to give radio advertisers efficiency, accuracy and timeliness of data comparable to online advertisers."

Mediaguide supplies digital fingerprinting and broadcast monitoring; SeeSpotRun services include basic verification, competitive spot monitoring and ad effectiveness models that correlate SeeSpotRun radio data with information from other channels such as point-of-sale tracking data.

SeeSpotRun President Mike Morin stated, "Radio is a powerful and effective medium, but doesn't always do the best job of proving it."

Real-time data is from Mediaguide fingerprinting technology and its network of 2,500 stations. SeeSpotRun tracks spots running in real time; it also promises detail on the context in which ads ran. Benchmarking data can be parsed by market segment, geography, station, day and day part. This data is used to chart ad effectiveness.

The company calls this the industry's first real-time, "self-service" approach to radio ad verification. Morin said the service will be a particular help to local and regional advertisers, including those in retail, who rely on a heavy schedule of time-sensitive spots.

For information contact the company at (800) 901-5669 or visit www.seespotrun.com.

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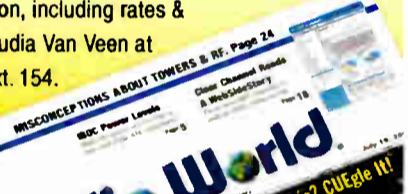
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GUEST COMMENTARY

Wall Street Doesn't 'Get' Consumers

Those Who Lead Investors Don't Have a Clear, Informed Understanding of Consumer Behavior

by Dave Van Dyke

Banc of America securities analyst Jonathan Jacoby returned from CES in Las Vegas with some good news and some "bad news" for terrestrial radio. He also returned exposing his ignorance of true listener behavior.

Mr. Jacoby said he "found many new devices/systems that are making it easier to use cell phones and MP3 players in the car." He continued, "Several products on display integrate the iPod and cell phone into the car. Our negative outlook for terrestrial radio is based largely on our view that radio's in-car listening base will be eroded by compelling alternatives.

"On the plus side," he added, "the supply of HD Radio units seems to be building. There were more HD Radios on display than at last year's CES, and many major audio manufactures have gotten into the game."

Look to the 'mainstreamies'

Let's address these comments:
1) Mr. Jacoby said, as substantiated by Arbitron's People Meter technology and more granular research by Bridge Ratings, terrestrial radio has evolved into more of a reach medium. Radio stations have larger weekly audiences than previously thought. From a radio sales perspective, sales managers will have to finesse a new approach to selling air time with reach as the emphasis over "average quarter hour," but that's not a major river to cross.

The point here is that in spite of the in-car alternatives Mr. Jacoby mentions, Americans still listen to the radio, and attrition overall is slight. Terrestrial radio is still a key viable in-car option and only the very young early adopters and innovators in the 16-to-22-year-old age group are significantly more likely to turn off the radio for longer periods of time. But they still listen.

Terrestrial radio competes quite well in-car with other alternatives. The amount of time spent in-car with terrestrial radio

depends on quality of content.

2) HD Radio unit availability seems to be building. Bridge Ratings estimates that by this time next year, there will be 1.9 million HD Radio units in the hands of consumers in the U.S. — an increase of some significance over the approximate 1.1 million we estimate were sold by the end of 2006. But it's not enough.

The growth is disappointing. We project less than 9 million HD Radio consumers by 2010. Hardly something to be excited about when satellite radio will have 30 million and Internet radio will have 147 million.

Let's look at consumer interest in HD Radio. In an update to its 2006 study, Bridge Ratings reveals that mainstream America, a life group we call "mainstreamies," has little understanding of what HD is or what its benefits are. A disappointing 26 percent of this group are even familiar with the term, and less than 1 percent know that additional hardware must be purchased in order to use it. Sixty-three percent of the entire "mainstreamie" life group think they already have it.

Mr. Jacoby, your visit to Vegas doesn't seem to have clarified anything for you. It would appear that if Mr. Jacoby represents common attitudes on Wall Street, terrestrial radio has a different problem: Those who lead investors by the nose don't have a clear, informed understanding of consumer interest or behavior. That may be the biggest hurdle terrestrial radio has to face going forward.

Dave Van Dyke is the founder and president of Bridge Ratings. This commentary recently appeared on his blog, "Navigate the Future" (www.navigate-thefuture.blogspot.com).

Write to RW: Send 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.



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◆ READER'S FORUM

Calm During The Storm

Mr. McLane, thank you so much for the wonderful write-up ("Small-Market Station With a Big Mission," Jan. 3). Ken R. did an excellent job on the story. It was really an extraordinary honor to be named Religious Station of the Year by NAB. I want to thank NAB as well for considering the work of KJIL(FM), which is a small-market station.

It is remarkable that at the time the article appeared we had been hit by an ice storm that caused the top 250 feet of our

tower to fail. We not only lost the top of the tower, but also the antennas for KJIL and KHYM(FM). We were off the air for nine days.

However, I consider just being off nine days very remarkable. I want to praise the emergency services of ERI and Bell Tower Corp. for running to our aid and getting us back on the air. Considering the incident occurred on Dec. 31 and we were not able to contact people until Jan. 2, these companies got us back on the air in one week.

Our thanks to Richard Bell and Bob Pierce of Bell Tower Corp., who obtained a crew to inspect the portion of the tower still standing to verify it was satisfactory

GUEST COMMENTARY

'Perfect Storm' Stalled Minority Ownership

MMTC: Lack of Capital, GOP Congress Contributed To Stagnated Growth of Minority Station Ownership

by Tony Sanders

Social change takes place through positive action by individuals. Working together, like-minded individuals can band together to make changes happen more quickly. Sometimes that effort works well. Sometimes it doesn't.

Ultimately, it depends on the social and political climate. Are the legislators, regulators and citizenry primed and ready to accept some level of change? If not, then what might appear to be a fast-track to social change could end up looking more like a long, lonely, winding road.

That's pretty much the situation for minority ownership of radio and TV stations here in the United States.

Fifty years ago in 1956, there was only one minority-owned radio station that had been built from the ground up: WCHB(AM) in Inkster, Mich. At the time, according to my own research, there were no more than three minority-owned radio stations operating anywhere in the country.

Currently, according to the most recent data available, there are about 400 to 450 minority-owned radio and TV stations.

That may sound like a lot, but it's still a small percentage of the industry's total number of broadcast outlets. In fact, in 1995 minorities owned fully 350 broadcast outlets. Their growth in station ownership over the last 10 years — a time of rapid media consolidation — has been hampered by what some have called "a perfect storm" of events.

Still, as minority entrepreneurs continue on the slow road to broadcast ownership, they can take pride in knowing that some of the individuals and organizations that helped pave the way — such as the Minority Media and Telecommunications Council, and the Office of Communication for the United Church of Christ — are still working hard to finish their work and make it easier for anyone who wants to own a radio or TV station to do so.

The MMTC is the youngest one in this group, celebrating 20 years of hard work in 2006. The UCC's Office of Communications is now 50 years old.

And at the center of it all is Dr. Everett C. Parker, who celebrated his 94th birthday

in late January. Parker became active in minority broadcast ownership fully 50 years ago, first with the UCC and then with the MMTC. He is still active today.

Making waves

The MMTC was founded in 1986. According to MMTC Executive Director David Honig, that founding day was "the day after the FCC, to everyone's surprise, suspended two of the FCC's three minority-ownership policies."



MMTC Hall of Fame Inductee Leonard Baynes, MMTC Executive Director David Honig, MMTC Board Chairman Henry Rivera and HOF Inductee Bill Stephney

Honig was referring to three FCC policies designed to help minorities participate in broadcast ownership.

In a nutshell, those policies are: awarding tax certificates to licensees who sell a station to a minority; offering a preference to minorities in applications for new frequency allocations; and allowing licensees forced into a distress sale to recoup some of their losses through a sale of that license to a minority.

A decision in the late 1970s by the D.C. Circuit Court of Appeals said that minority applicants should receive additional consideration "when minority ownership is likely to increase the diversity of content, especially of opinion and view point."

Tax certificates and distress sales also were developed as FCC policy in the late 1970s, under the auspices of Dick Wiley, a Republican, who served as FCC chairman from May 1974 until October 1977.

When Democrat Jimmy Carter was elected president in 1976, the FCC's next chairman was Charles Ferris, who served in that role from 1977 until February 1981. It was under Ferris that the tax certificate policy was finally adopted.

The next president, Ronald Reagan, appointed Republican Mark Fowler as FCC chairman.

The Fowler FCC suspended minority-preferences for distress sales and new frequency allocations. Tax certificates, however, remained part of the FCC's policy until Congress repealed that policy in 1995.

Honig says the FCC's tax-certificate policy lifted minority broadcast ownership from 60 stations in the late 1970s to over 300 in 1995.

Henry Rivera is another co-founder of the MMTC. At the FCC, Rivera served as

one of the Democratic commissioners there from 1981 to 1985.

Rivera said minority broadcasters are suffering from a "perfect storm" of events that have stagnated station-ownership growth: "I think there has been a confluence of things that have happened in the last 20 years. It's sort of like the perfect storm. Bad Supreme Court decisions. We've had an economy that wasn't really great. We've had a Republican Congress for the last 12 years and they have not been particularly interested in helping minorities."

As for the demise of tax certificates in 1995, Rivera said, "Part of that was our

from Clear Channel — just a few of the spinoffs required by the media ownership rules and in the wake of Clear Channel's multi-billion-dollar acquisition of AMFM.

In total, Clear Channel spun off more than 100 stations in the AMFM merger. Honig says the 40 stations minorities acquired were bought for a total \$1.65 billion.

By popular demand

Now, MMTC is poised to get involved again. Clear Channel announced recently that it would sell 441 radio stations and all of its TVs as it takes the company private in a leveraged buyout.

MMTC hasn't been content to wait for mega-opportunities like this to come along in order to help minority broadcasters get access to capital and deals. Every July, MMTC has organized an annual "fly-in" to help educate aspiring station owners in the finer points of broadcast ownership, station acquisition and capital formation.

But July is still a long way away and those Clear Channel spinoffs won't sit around for long.

In anticipation of all this, MMTC co-hosted a three-day conference in January to help put aspiring minority entrepreneurs in front of private equity firms, banks, communications attorneys and others. The event was sponsored in part by the NAB and Clear Channel.

"The significant thing is that the majority broadcasters who are interested in selling to minority broadcasters come to us now, because we have that reputation in the community of being connected with the entrepreneurs," said Honig. "That's just a reputation we've built over the last 20 years."

The other major project for this year is

The other major project left for this year is to bring back minority tax certificates. Now, with a Democratic majority in the House and Senate, the timing may be right.

fault. We've had some who took this thing to a point where it became a thorn in people's sides."

Rivera was referring to the mid-1990s proposed acquisition of Viacom's cable systems by an investor group headed by Frank Washington. If that \$2.3 billion deal had been finalized, Viacom would have been able to defer an estimated \$400 million in capital gains because the sale would have been made to a partnership controlled by a minority.

That deal didn't go through and it marked the very-quick end for tax certificates.

Ultimately, the ability to expand minority broadcast ownership boils down to money. That was true in the beginning and it's still true now. As Rivera put it, "The single biggest problem minorities have is access to capital. I chaired an advisory committee at the FCC when I was there and that was the case then. It continues to be the case."

To help solve that problem, MMTC established a brokerage business, MMTC Media Brokers, in 1997. The goal was to make it easier to put aspiring minority broadcasters in front of money people, either banks or private equity firms.

Three years after it was formed, MMTC Media Brokers was able to help minority broadcasters buy 40 stations in eight deals

to bring back minority tax certificates. The timing may be right. Tax certificates were killed by a Republican Congress.

The Democrat-controlled 110th Congress may like the idea of bringing back tax certificates. If so, that may be all that's needed because it appears that FCC Chairman Kevin Martin likes the idea of reinstating tax certificates too.

During a recent press conference, Martin said his commission continues to recommend that tax certificates be reinstated. Specifically, Martin said, "The commission has had [tax certificates] as a recommendation for legislative action for quite some time." He said that such a recommendation has been included regularly in the FCC's reports that are submitted to Congress.

Martin also said his commission "always tries to make sure that we're balancing the opportunity for minorities and diversity of viewpoint in the media realm. We value that as one of the core principles that the commission ends up fostering."

If our legislators are listening and opt to bring back tax certificates, they'll greatly contribute to transforming the road to minority broadcast ownership to a smooth, multi-lane highway.

Tony Sanders is part of the senior editorial team for MMTC's quarterly e-newsletter.

RUM ♦

to hold temporary antennas. They of course then put those antennas on the tower. I also want to thank the tower crews, led by Rick Lauchner and David Copeland. They are very brave men to do that kind of work.

ERI worked a shift overnight on the weekend and then drove antennas to our tower site to help in the work of getting us back on the air. My thanks to Tom Silliman and Ernie Jones and their employees for getting the job done.

Don Hughes
President/CEO
KJIL/KHYM
Great Plains Christian Radio
Meade, Kan.

◆ READER'S FORUM ◆

Hit One Out Of the Park

I enjoyed Mark Lapidus' article "Tune-Up No. 1: Marketing/Promotions" (Dec. 6).

We've been quite successful with our local Rookie League team, The Billings Mustangs, on an event called "Pack the Park." It has been super community exposure for our two stations, and over the years we've actually figured out how to make a little money off of it — or at least pay the bills.

We actually pay a flat rate for about 3,000 general admission seats on a given

out the community, and fire off our on-air promotional campaign. There is usually a mad scramble for remaining tickets the day of the game.

We make additional income by selling Pack the Park packages to businesses that just like the idea and want to be part of it. They get mentions on an on-air baseball



Near the picturesque Rimrocks, Cobb Field has been the home of the Billings Mustangs since the club's inaugural season of 1948. Herm Elenbaas says his stations do well with the Pack the Park promotion.

night. We have a co-sponsor that picks up half of the cost; in exchange he receives signage at the entry gate, a co-mention on our on-air promos leading up to the night, and [he serves as] the main ticket pick-up location.

About two months out we contact all the churches in the community and let them know about the game and offer to save out quantities of tickets for them to come as a group. We are Christian stations so that fits our prime audience target quite well. We usually get 20 or 30 requests for quantities of tickets — sometimes as many as 200. We've had several churches take this a step further and do a free tailgate party at the ballpark 90 minutes before the game, giving out hot dogs, beverages, etc.

Then two weeks out, we release the rest of the free tickets through four on-air clients that are evenly dispersed through-

trivia game we play for the last ten days before the event. They also have the opportunity to contribute door prizes between innings of the game.

The night of the game, we have our station tent set up right outside the gate, and a station vehicle right where people wait in line to get in, and we do call-ins and giveaways to people as they come in the gate. We have one of the soloists from a local church do the national anthem. One year we had a man play a saw; another year a third-grade boy who nailed it. And several times the exposure these people have has opened the door for "anthem" opportunities at other sporting events around town.

Then I sit in the booth with the PA announcer and he gives me the mic to do giveaways between innings and I also promote upcoming station events to the crowd. Winners have registered at our

Window or Chaos?

The FCC has suggested that this spring we might see the first-ever "window" to file for new FM licenses in the non-commercial educational band.

It has been about nine years since the commission enacted a freeze on filings for new stations in the NCE band, which occupies the reserved spectrum from 88 to 92 MHz.

Held by colleges, high schools, public radio affiliates, churches and other non-profit groups, educational band licenses are allocated according to contour separations. This method of allotment, enhanced by directional arrays and low-minimum power requirements, has allowed a relatively small piece of spectrum to be packed with a large number of stations. Many serve tiny communities, as small as a college campus. On the other hand, the recent growth of public radio as a news source has made the noncommercial band well known to a mass market of listeners.

After a long freeze there exists great pent-up demand. The NCE band is under intense pressure from potential non-profit licensees.

The system of filing windows is new for the FM band. Such a window was created for translators a couple of years ago with disturbing results. More than 10,000 applications were filed in the translator window, many of which were defective in some way or conflicted with one another. It turned out that a few organizations with the ambition to create a national translator network had filed for thousands of translators in every open space they could find. This was not the intended outcome and does not seem to further local radio service.

Worse is the perception that many applications were filed by parties hoping simply to sell a translator to the highest bidder after award of the CP. The FCC ended up freezing many thousands of open applications, the disposition of which has still not been completed.

Now that we are on the verge of another window, we wonder if the FCC learned from the mistakes made on the translator filing window.

While the window filing system seems to put applicants on an equal footing to start, it has an unfortunate side effect: a tendency to force everyone interested to file for as many possible locations as possible. Existing licensees looking to protect the edges of their service contours will file preemptively in every direction that might allow an outside entity to start up a new source of interference. Aspiring broadcasters with no guarantee of a particular frequency or location will file possibly dozens of applications in order to improve their odds of finding one that does not conflict with another application. And there is still the unfulfilled desire to create national noncommercial networks, ensuring extensive filing on behalf of these parties.

The result could be another free-for-all.

We encourage the FCC to consider methods to discourage preemptive and speculative filing. One possible method would be the imposition of a minimal filing fee, affordable for stations looking to put in just a few applications but as a disincentive to massive, scattershot filings. An outright cap on the number of filings allowed by a single organization is another method that would work to limit applications.

The noncommercial educational band is a valuable resource, an incubator to new broadcasters and a radio service that provides an alternative to the types of programming provided by commercial broadcasters. Stations in the noncom band often are intensely local and deserving of protection from well-funded national groups. The FCC should consider how to launch much-needed expansion in the band without bringing it into chaos. Given the outcome of the translator window it would make sense to err on the side of caution.

— RW

booth before the game.

The last couple of years, I've gotten busy with my digital camera during the game and gotten a lot of crowd and people shots, which I post on the station Web site the day after the game.

The highest attendance of the year for this team is usually about 4,500, but our promotion is usually between 3,500–4,200. We obviously couldn't do this without a cooperative management staff of the ball club, and it's been a win-win

situation for us.

We've been at this for about 13 years now and the club usually calls us as soon as the schedule for the following season is out to see what night we want.

Just thought I'd share how we have been able to do a great community event with our local baseball team.

*Herm Elenbaas
General Manager
KURL/KMZK Radio
Billings, Mont.*

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