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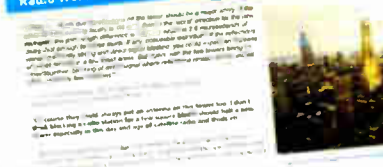


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Radio World Talkback



PPM Transforms Radio's 'Clock'

For Programmers, Monday Is the Most Critical Day; And the Entire Hour Is Important

BY RANDY J. STINE

COLUMBIA, Md. — It's a new world for radio programmers, thanks to the PPM. Consultants and PDs chasing rating success say new rules of thumb apply, thanks to Arbitron's Portable People

SPECIAL REPORT

Meter. But they also conclude that the process of learning the subtleties of the electronic audience measurement service is an evolutionary one.

PPM, which was launched in 2007, has replaced Arbitron's paper diary methodology in 43 of the top 50 rated markets. Scheduled for "currency" in December are Greensboro, N.C.; Jacksonville and West Palm Beach, Fla.; Hartford, Conn.; and Memphis, Tenn. With the additional five markets, this completes the current planned PPM rollout.

Despite some early stumbles, PPM has gained the respect of broadcasters and, more important, the radio advertising community, observers say. It now is firmly entrenched as the next-generation radio measurement service.

Arbitron's PPM technology encodes broadcasts with inaudible signals that are detected by software, which can be downloaded into a cell phone or a meter worn by research participants.

Early PPM beefs of programmers ranged from small sample panels to under-representation in samples of minority populations. Arbitron has said sample sizes are on track to increase approximately 10 percent in 2011; and the company has made changes to its recruitment methodology to address concerns expressed by groups including the National Association of Black Owned Broadcasters and the Minority Media and Telecommunications Council.

Some programmers also have complained about PPM "wobbles," seem-

ingly random rating swings, according to Harker Research. It found that "flipping a coin is directionally more predictive than looking at monthly PPM trends."

Arbitron has said it will address worries over these perceived wobbles by shortening the amount of time panelists carry a meter in some cases to smooth turnover.

As Radio World has reported, Arbitron also intends to roll out an updated meter, dubbed PPM360, in the field in 2011. Currently, panelists must dock their PPM each night at home and transmit the data back to Arbitron over a land line; the new wireless units don't need to be docked, and no landline is needed to transmit data to Columbia, Md.

NUANCES

Accurately interpreting the nuances of PPM is crucial to a radio station's

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Inside So. California Public Radio's New Facility at KPCC(FM)

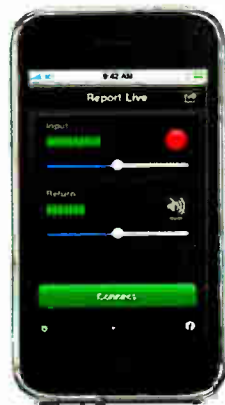
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Selected content from Radio World's "The Leslie Report" by News Editor/Washington Bureau Chief Leslie Stimson.

WHAT'S HAPPENING WITH EAS?

Engineers and others in radio have questions about what's happening with EAS. I asked public warning systems consultant and educator Art Botterell, also creator of the Common Alerting Protocol, a few questions via e-mail, one in a series of EAS/CAP Q&As you can read at www.radioworld.com/article/108516.

RW: How would a station know if its EAS gear can receive and/or send a CAP-enabled message?

Botterell: Well, their vendor will say so. But that may mean less than it seems, since vendors are giving priority to getting federal CAP alerts from FEMA's "IPAWS" servers. And IPAWS connectivity isn't necessarily the same thing as that used for state or local CAP relay networks.

RW: What is a "governor's must carry" message? An FCC working group has asked FEMA to clarify how "governor

One major example: Cell phones will be able to select where to alert people selectively in particular areas instead of having to interrupt service for their whole audience.

About Botterell's involvement with CAP: He tells me he came up with the concept in 1999, and organized the original open-source effort to define it in 2001. He then shepherded CAP through a series of field trials and revisions in 2002 and 2003, contributed the work to the standards-setting group OASIS, the Organization for the Advancement of Structured Information Standards, and edited the 1.0 version of the OASIS spec in 2004.

CEA ISO TECH ENTHUSIASTS

The Consumer Electronics Association is expanding its membership to include a special category of consumers. The association has added what it's calling a "tech enthusiast" membership category; see www.ceatechenthusiast.com.

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must carry" messages will be implemented.

Botterell: Basically, under the amended FCC rules, the state emergency communications committees in states that implement CAP relay networks (or decide to rely on FEMA's network, I suppose) can elect to give their governor and "designees" the authority, equivalent to the president's, to require stations to carry their EAS messages or else sign off the air.

The details will need to be spelled out by the SECCs and then approved by the FCC. We don't know what the FCC will or won't approve yet.

RW: Is there anything else stations need to know?

Botterell: I think the main thing broadcasters need to understand is that FEMA's IPAWS program is mainly focused on national security and the presidential capability of EAS. The particular office within FEMA that manages IPAWS has no responsibility for state and local public safety or emergency management. So if folks are concerned about AMBER alerts and other state and local functions, they need to get busy and contact those folks.

The other thing of which I'd remind broadcasters is that cellular alerting is coming in 2012. That's going to be a game-changer in ways that go well beyond the immediate politics of FM chips.

At his keynote opening the Consumer Electronics Show back in January, I remember hearing CEA President/CEO Gary Shapiro describing this membership category as one made up of early adopters, or "your best customers," he said, addressing manufacturers and retailers.

Ten months later he said: "Our entire industry will benefit from this new offering as our tech enthusiasts' expertise, thoughts and opinions will help inform everything from product offerings to public policy efforts."

The trade group says these new members will receive benefits such as online discounts from tech companies, beta testing opportunities and insider industry information on trends.

Aside from access to a members-only website and CEA material, one of the perks of joining is a "one-time-only" chance to attend the CES on the last day the show floor is open for the first 1,000 registered CEA tech enthusiast members. That last item is a big deal — and a good idea for any show, as the last day on an exhibit floor becomes a time for vendors to talk to each other as most attendees have started travelling home.

Now if Gary would just stop calling radio a "buggy whip" industry over the issue of mandating FM chips in cellphones, maybe some broadcast engineers would sign up.

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Radio, Page After Page

Book Titles You Might Consider
As a Gift or for Your Own Fireside

My mom recently bought me a Kindle for my 50th birthday. She did so with some trepidation, knowing how much I enjoy my books.

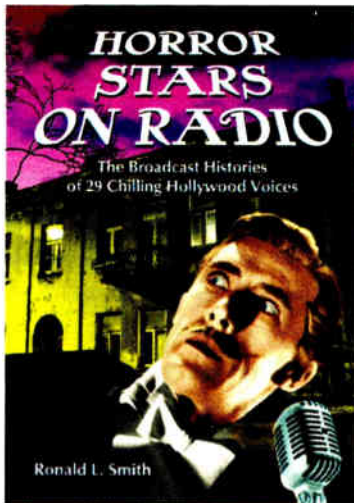
I'm putting this wireless reading device to good use — currently deep into "The Great Fire of London: In That Apocalyptic Year, 1666" by Neil Hanson, prompted by a recent memorable vacation in London — but I don't think I'll surrender entirely to the format. I just get too much pleasure out of hefting a well-made printed book, looking at its cover, flipping back and forth through the photos, smelling the pages.

Here are some titles you might want to know about this holiday shopping season.

"Horror Stars on Radio"

—I had occasion recently to spend time in the car with my colleague James O'Neal, whose hard drive is loaded with fabulous early radio content. We listened to an episode of "Suspense" featuring Vincent Price, and I was struck again by the master's remarkable voice, its uniquely unsettling effect.

But perhaps I should not say "unique." Here's a book, written by Ronald L. Smith, that explores radio performances of a couple dozen horror movie stars, including Price, Bela Lugosi, Peter Lorre,



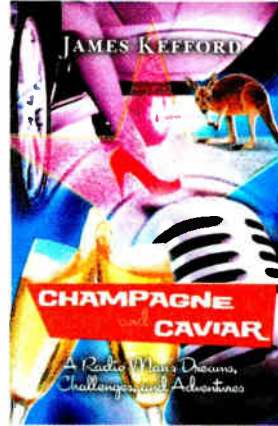
John Carradine, Basil Rathbone, Una O'Connor, Agnes Moorehead, Fay Wray and other "scream queens." It includes lots of photos. Retail price: \$45, a bit less on Amazon (and about \$16 via Kindle!). Published by McFarland.

"*Champagne & Caviar*" — James Kefford subtitles his book "A Radio Man's Dreams, Challenges and Adventures," and it is just that.

I've told you about other books like this, works by people with a passion for radio who thrived in one corner of the industry or another, stories (often self-published) unlikely ever to

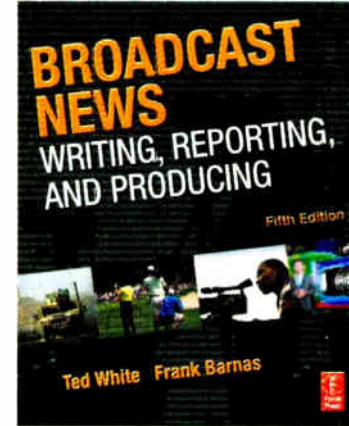
break the top 10 on Amazon but perfect should you like nothing more than "sitting down" with a fellow radio pro and hearing stories about their careers.

If you wonder what it was like to work at syndicator Drake-Chenault in the 1970s and '80s (Kefford became its president), or are curious how a 15-year-old DJ making \$1.05 an hour



might end up in community banking and philanthropy in Australia, here's one for you. The book is informal, sometimes unpolished, a quick, personal read. Kefford intersperses his text with fun lists of notable tunes for each year from 1947 to 2009 — from Sammy Kaye and Pat Boone to Alicia Keys and Black Eyed Peas.

Paperback, on Amazon for \$16.99 (or \$4.99 via Kindle). You can read a preview at www.jameskeffordmedia.com.



"*Broadcast News: Writing, Reporting and Producing*" — The fifth edition of a Focal Press title. Earlier editions were by the late Ted White; Frank Barnas has updated the text. This is a book for students, and is as much about journalism basics as it is about mic technique and how to avoid writing negative leads. Much is devoted to television; but with the convergence of video, audio, online and other new media, the book is for anyone who wants to learn the basics in this field.

Paperback, it retails for \$49.95 but I saw it for much less on Amazon, and there is a Kindle edition too for about \$25.

FROM THE EDITOR



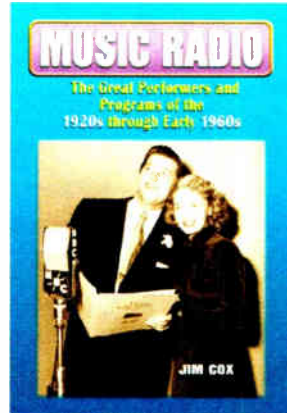
Paul McLane

"*Music Radio: The Great Performers and Programs of the 1920s Through Early 1960s*" — Also from publisher McFarland is a paperback version of Jim Cox's 2005 book "Music Radio: The Great Performers and Programs of the 1920s Through Early 1960s."

His book "encompasses the entire range" of musical programming over that time period. "Jazz, country, classical, gospel, pop, big band, western, and semi-classical forms are covered, as are the vocalists, instrumentalists and disc jockeys who made them available to listeners." This book is for the radio programming fan who differentiates "The Bell Telephone Hour" from "The Cities

Service Concerts" and "Your Hit Parade." It's a 380-page soft-cover, \$39.95 on Amazon. If you are ordering for the holidays, check availability; the paperback was due in early December as I write this.

And a special tip of the hat to McFarland & Co.,

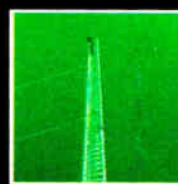


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NEWSROUNDUP

CPB FUNDING: The co-chairs of President Obama's National Commission on Fiscal Responsibility and Reform suggested eliminating federal funding for public media. But NPR says this would have a profound and detrimental impact on Americans. In a draft of a report, the co-chairs recommend zeroing out funding for the Corporation for Public Broadcasting. They would cut about \$500 million from the CPB funding that NPR and PBS combined receive for public stations. NPR stated it is imperative that funding continue. "In a time of media decline, especially in local, international and investigative reporting, public radio's role in fostering an informed society has never been as critical as it is today."

JELLI: Crowdsourcing platform Jelli has introduced an iPhone app, allowing users on the go to help program FM station and streamed affiliate stations. Jelli users vote for the artists and songs they want to hear, either online through the Jelli website or via the new iPhone app, creating dynamic playlists that determine in real time what will play online and on FM radio stations that use the service. At the recent Radio Show, Jelli CEO Mike Dougherty told Radio World many of the stations using Jelli do so in conjunction with their automa-

tion systems, adding spontaneity to their overnight or weekend programming. "Jelli on the iPhone helps make the radio more social and fun," says Dougherty.

SATELLITE: The attorney general of Washington state is probing how Sirius XM handles subscriptions and collections. Rob McKenna's office said it received more than 120 complaints. McKenna told KIRO(TV) in Seattle that most of the complaints came from people who tried to cancel the

satellite radio service. In several cases, KIRO reported, the satcaster put callers on hold or transferred them repeatedly without cancelling their subscriptions. Attorneys general in Arizona, Connecticut, Florida, Ohio, Tennessee, Vermont and the District of Columbia have similar investigations, according to Sirius XM's SEC filings. The satcaster has told investors it is cooperating with the investigations. In October, Missouri Attorney General Chris Koster won a preliminary injunction against Sirius XM, alleging the company had been violating Missouri's no-call list.

BOOKS

(continued from page 4)

which a while ago issued a promotional brochure focused *entirely* on its collection of books about radio. Most of the titles are about radio programming, but there's also some tech, ham, sales and other history topics. Its books include "Waging 'The War of the Worlds,'" a history of that famous 1938 broadcast, including the original script, and published in 2009; "Christian Radio: The Growth of a Mainstream Broadcasting Force" (2006); "Charles Herrold, Inventor of Radio Broadcasting" (2003); "The Audio Theater Guide," about vocal acting, writing and directing (2009); "The World of Ham Radio, 1901-1950," published in 2007; and "Cold War Radio," a look at American broadcasting in Europe during that time (2009).

If you need radio book gift ideas, go to www.mcfarlandpub.com and click on Radio, under Pop Culture & Performing Arts.

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HD Radio Is Part of Holiday Push

Focus for the Season Is on Auto Aftermarket and Portable Models

BY LESLIE STIMSON

These days, holiday promotions and sales prices begin well before so-called Black Friday.

Topping several surveys for most-wanted gifts this year are toys and games, with consumer electronics generally somewhere among the top five.

An estimated 32 percent of shoppers plan to make a consumer electronics purchase this season, the Consumer Electronics Association believes.

While price-wary, they're looking to spend: The average American will spend \$232 on electronics gifts this year, according to CEA's 17th Annual CE Holiday Purchase Patterns Study — a gain of 5 percent from last year and the highest dollar amount in the history of the study. The trade group heard from approximately 1,000 respondents.

CEA said respondents listed notebook/laptop computers and Apple iPads as the most-wanted CE gifts, either for themselves or their kids.

Radios weren't on the list. A spokeswoman told Radio World participants weren't specifically asked about radio

in the survey, though they could have included it as an answer to one of several open-ended questions. CEA did



The NS-HD02 is the first HD Radio portable to feature Artist Experience, images related to a station, its songs or ads. Though the visual content is broadcast on few stations now, more are expected by the holidays.

not find a significant percentage of respondents included radio in their responses.

Research firm NPD said respondents pegged consumer electronics as number four, after clothing, toys, movies and books. Within the CE category, some 2,000 participants included items such as MP3 players, DVD players, cell phones and satellite radios on their shopping lists. NPD did not return calls asking whether participants were questioned about terrestrial or HD Radio receivers.

If new product offerings are an indication of the market, though, someone will be buying radios.

New offerings include receivers for HD Radio and Internet radio; some of the more notable are featured in this article and in the story on page 10. Next issue we'll look at devices with Pandora, cell phones with FM radio and other consumer electronics offerings on holiday shelves.

HD RADIO

iBiquity Digital Corp., HD Radio alliance stations and retailers partici-

pated in several high-profile promotions in recent months to build awareness and drive sales of HD Radios to consumers this holiday season.

For example, JVC conducted a campaign with Sears to promote the receiver maker's integrated HD Radio tuner. (See box, page 7, for other campaigns.)

The websites Amazon.com, Crutchfield and Sony Style are selling HD Radio products, as are retailers with both brick-and-mortar and online presence, like Radio Shack, Best Buy and Wal-Mart and regional sellers.

"This year we focused on automotive aftermarket and portables," said iBiquity SVP Marketing Steven Baldacci. "The more automotive aftermarket brand loyalty HD Radio can generate now, the better it is for HD Radio to build brand loyalty among young males," he said, which will make a difference when that demo buys new cars.

Portables — The next-generation Insignia HD, the NS-HD02, reached Best Buy shelves Oct. 24. While the NS-HD02 was backordered on the company's website in mid-November, its stores seem well-stocked, according to the retailer, and it hoped to offer more units online late November to early December.

This is HD Radio's first portable to

(continued on page 8)

Remote Up in the Air? Get it ON the Air with ACCESS!

"We were invited to ride along in a hot air balloon to help promote the Grove City Balloons and Tunes Festival near Columbus," says Matt Bruning of WTVN in Columbus, OH. "When I asked about doing a live shot from 2,000 feet up, our engineering department went straight to the shelf with our Comrex ACCESS on it. The unit did a great job...as we expected. Thanks so much for making a GREAT product like the Comrex Access - so easy even a news person can use it!"

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AD CAMPAIGNS HIGHLIGHT HD RADIO

Several ad campaigns this summer and fall sought to drive consumers into stores looking for HD Radios.

HD Radio Alliance stations are airing ads promoting new HD Radio receivers on some 600 stations in 100 markets through Dec. 28. The campaign includes separate ads tailored to drive consumers into Sears, Best Buy or Magnolia Home Theater stores for holiday offers and for new products bearing the JVC Mobile, Denon home audio and Best Buy Insignia house brand, the alliance said. The retailers collaborated with HD Radio partner brands JVC, Denon and Insignia and the HD Radio Alliance to launch products and holiday offers. Interactive and "drive to web" messaging is included and supported on relevant websites.

Kenwood collaborated with iBiquity on an ad this summer for its integrated HD Radio, the KDC-HD545U. Thirty-second ads aired on alliance station in the top 100 markets. The spots focused on HD Radio technology in general, including



Photo by James DeRidder, iBiquity

iBiquity demo'd HD Radio features as part of the My Lincoln Touch hands-free communications system in September in Washington.

iTunes Tagging and HD2/HD3 digital channels.

Kenwood USA Marketing Development Manager Tony Mercado told Radio World the spots were aimed at driving people into stores for a demonstration, or to

the Kenwood or iBiquity websites for details of the promotion. "We were happy with the results," said Mercado. "We maintained our sales velocity over that three-month period and got positive feedback from our dealer network."

iBiquity was part of a three-day event Aug. 29 through Sept. 2 with Lincoln at the Ritz-Carlton Hotel Georgetown in Washington. Lincoln invited automotive writers to test drive the 2011 Lincoln MKX and MKZ Hybrid.

iBiquity demoed the HD Radio features as part of the My Lincoln Touch driver connect technology. THX II audio systems are paired with HD Radio and DTS Neural Surround decoding in Lincoln 2011 models.

Senior Manager of OEM Marketing and Business Development James DeRidder said Ford asked iBiquity to make an interactive demo. iBiquity partnered with Clear Channel's WASH(FM,) which aired pre-recorded jazz content in the DTS Neural surround format on its HD2 channel. The station, which has a smooth jazz format, also broadcast custom Program Service Data, which is on-screen text information, including song title and artist information, as well as text that highlighted the event, he said.

iBiquity has participated in similar events with other automakers.

— Leslie Stinson



LIVE & LOCAL

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HD HOLIDAYS

(continued from page 6)

feature Artist Experience, which are images related to the station, its songs or ads. The unit retails for \$69.99 (prices in this article are as of mid-November). It features a larger screen than its predecessor, at 2.4 inches, plus the ability to cache up to 15 minutes of live programming. When transmitted by stations, the images make the receiver experience dynamic, iBiquity promises. When a listener tunes in a station, its logo pops up, branding the station with a graphic image. Once a song begins to play, the listener would see a pre-loaded image. Commercials can have related images as well.

The images can be synchronized with the audio, but they must be transmitted about 30 seconds or more in advance of that particular audio, so the receiver can store them for viewing. iBiquity is working on technical and album art licensing issues with automation vendors, stations and digital media company Gracenote.

"Stations are rapidly moving towards deployment in many major markets," according to Baldaacci, who adds the technology developer will have more to say about the stations transmitting the Artist Experience image data by the holidays. The technology developer believes the ability to transmit images will help stations with branding and bring in revenue from ads that include specific images.

The Microsoft Zune HD includes high-definition video output capabilities, an organic LED touch screen and an Internet browser. Zune HD is Wi-Fi enabled, allowing for streaming to the device from the Zune music store. The radio portion of the device features analog FM RDS and digital FM HD Radio song tagging capability. Best Buy offered the 32 GB version of this MP3 player for around \$230 and the 64 GB version for approximately \$350 on its website in November.

Automotive aftermarket — JVC has added HD Radio to more in-dash CD receiver models. The KD-HDR40 CD receiver features an HD Radio tuner, front auxiliary input and MP3/WMA playback. Crutchfield listed this unit at \$129.99.

The KD-HDR60 CD receiver features a built-in HD Radio tuner, front auxiliary input, USB 2.0 connection for iPod/iPhone control and iTunes tagging. The unit has MP3/WMA playback capability; Best Buy had it for \$159.99, while Amazon.com showed it for \$98.

The Arsenal KD-AHD69 includes the features of the KD-HDR60 and is satellite- and iPod-ready, with front USB port. The unit is MP3/WMA-



Kenwood USA's KDC-HD545U features an integrated HD Radio tuner and iTunes tagging.

compatible; Crutchfield sells it for \$159.99.

The JVC KW-NT3HDT navigation receiver includes an HD Radio tuner and features iTunes tagging and Clear Channel's Total Traffic HD Network, a free lifetime subscription with the purchase of the unit. Local weather conditions, sports scores and news headlines are also featured. The KW-NT3HDT navigation receiver is satellite- and iPod-ready and has a front USB port for iPod/iPhone control. The unit is MP3/WMA-compatible and features a front auxiliary input. Best Buy priced this unit at \$1,199.99.

Kenwood USA's integrated HD Radio solution for 2010 is the KDC-HD545U, with HD Radio and iTunes tagging. A front-panel USB input and mini-plug auxiliary input enables playback of external media. Mixed-preset memory gives

the user one-touch access to selected AM, FM and HD Radio. With an additional tuner, the unit can receive satellite radio stations. The KDC-HD545U is available through authorized Kenwood retailers like Best Buy, which priced the unit at around \$170.

Sony's first CD receiver with an integrated HD Radio tuner, and its first with iTunes tagging, is the CDX-GT700HD. Available for around \$180 from Sony and its retailers, like Best Buy and Amazon.com, the Xplod CD receiver features a detachable faceplate, front auxiliary input and MP3/WMA/AAC playback. A USB 1-wire for iPod, iPhone and MP3 players lets the user connect, charge and control a digital music player using the USB jack, as well as view metadata like song title and artist on the front display. Users can search and select songs by cat-

egory including artist, album, genre or playlist. Jump Mode allows the user to fast-forward through a music category in 10 percent increments. Best Buy and Amazon had it for \$179.99.

The Pioneer DEH-5200HD CD receiver features AM/FM radio and HD Radio, CD, CD-R/RW, MP3/WMA/AAC, front-panel auxiliary input and USB; the buyer can choose optional adapters for iPod control, Bluetooth connectivity and satellite radio. Amazon had it for \$135, Wal-Mart for \$220.

Tabletops — Sony XDR-S10HDiP HD Radio features an iPod/iPhone dock with a digital AM/FM/HD tuner. The alarm clock allows the user to wake to radio, buzzer, line-in source or iPod. It costs \$123 at Amazon and lists for \$149.95 from Sony.

The Dice Electronics HD Radio for the Visually Impaired, iTR-100-A, is based on the Dice iTR-100 tabletop HD Radio. It was designed with consideration for the visually impaired. Voice prompts and audible feedback have been added. Each button press is followed by an audio queue to help guide the user through actions such as station browsing or setting up the alarm clock. Buttons and knobs are arranged and spaced apart with ease of use in mind. Users can hear HD Radio or radio reading service audio. Walmart.com showed this unit for \$299.

See related story, page 10.

NEWSROUNDUP

BILL WEISINGER: Bill Weisinger died of cancer in early November. A broadcast engineer in the Cleveland/Akron area, he was 61 and a longtime member of the Society of Broadcast Engineers. The Bowling Green University grad held an FCC First Class License and was an SBE Certified Radio/TV Broadcast Engineer. He had been station manager and director of engineering for WSTB(FM), Streetsboro, Ohio, and programmed its program "Sunday Oldies Jukebox." Weisinger had been an adjunct professor at the school of Journalism & Mass Communication at Kent State University.

LARRY BLOOMFIELD: The founder of the "Taste of NAB Roadshow" and a radio/TV engineer and educator died. Larry Bloomfield was 72. He had worked for several broadcast outlets and owned an AM in Southern California. He also taught in California for six years and in Guam for three. In 2002, Bloomfield launched the "Taste of NAB Roadshow," a traveling event that provided a review of notable products introduced at the spring NAB convention, but was not affiliated with the NAB.

MARITIME: The Engineers for the Integrity of Broadcast Auxiliary Services Spectrum says it may have prevented a problem for Part 74 VHF RPU users in coastal areas. Co-Chair Dane Ericksen said that in July, the FCC Daily Digest carried an item seeking comment about recommen-



Bill Weisinger died in November at age 61.

dations from the commission's Advisory Committee for the 2012 World Radiocommunication Conference. One was a proposal for 19 maritime coastal station channels, 25 kHz wide, from 161.500 through 161.925 MHz. EIBASS, concerned that an allocation for co-channel maritime coastal stations could cause interference to 161 MHz RPU operations in markets with port operations, objected to the proposed allotment. A subsequent FCC Daily Digest carried another notice calling for comments to Docket 04-286; the attachments carried no trace of the proposal, according to Ericksen.

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World Radio History

Internet Radios Are Stocking Stuffers

Internet Radios Are Hot This Season; Here Are Some of the Significant Offerings



BY LESLIE STIMSON

Three Internet radios from U.K. designer Pure were to be available in the United States for pre-order at *Pure.com* in November.

NETRADIO

U.K. radio designer Pure describes Evoke Flow as a kitchen radio. The wireless portable unit features FM with RBDS.



Pure is introducing three Internet radios in the United States this year.

MAKE WAVES

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The company says the unit, which lists for \$199, gives consumers access to digital content from almost anywhere.

The bedside Internet and FM radio Siesta Flow features touch-sensitive controls, up to 365 alarm settings and a USB PowerPort, which provides power for USB accessories. A Wi-Fi connec-

tion lets you listen to Internet radio, podcasts and Pure sounds or stream music from a computer. The Siesta Flow lists for \$99.

tion lets you listen to Internet radio, podcasts and Pure sounds or stream music from a computer. The Siesta Flow lists for \$99.

For those who want to take their radio camping or to a picnic, the aluminum surround and rubberized seal of the Oasis Flow combines Internet connectivity with portability. The rechargeable Internet and FM radio lists for \$249.

The Sangean RCR-8WF Wi-Fi Internet radio has an LCD display large enough to show the time and other icons while having station and song information displayed below. The "no-tip, no-slip" design is designed for bedside use. Two programmable alarms can wake a user to a "kind" buzzer or a favorite Internet or FM station. The user can set a nap timer from 10 to 90 minutes; and the unit's sleep timer goes up to 3.25

hours. The Sangean can play MP3 files that are stored on a PC or file server. Features include Internet time, external Wi-Fi antenna for best reception, FM RDS, five presets, stereo headphone jack and line-input jack. It uses Reciva Internet radio technology. The model costs \$199.95 at C. Crane's website.

Grace Digital Audio is shipping a Wi-Fi Internet tabletop radio featuring Pandora. The GDI-IR2550p features one-button access to the thumbs up/down song selection and play/pause functions. Listeners can skip, play, pause and bookmark songs from the remote and front-control panel. The unit is available at www.gracedigitalaudio.com and www.amazon.com for around \$170.

The Livio Radio featuring Pandora offers that service's "thumbs up, thumbs down" controls on the front and via remote, helping users customize the music and programming. If you have a power source and a Web connection, the unit connects quickly and plays some 11,000 Internet radio stations through its own speaker, without needing access to a computer interface to operate, according to the maker. The Livio Radio lists for \$199.99 at the company's Web site.

Grace Digital Audio is shipping a Wi-Fi Internet tabletop radio featuring Pandora.

The new NPR Radio by Livio, which the manufacturer and pubcaster say is the first branded NPR consumer electronics device, is an Internet radio that features NPR stations, programs and content in a special NPR menu. The

menu allows users to search, find and bookmark their NPR stations, podcasts and content, by topic or by program. In addition to approximately 800 NPR stations, the unit features the Reciva database of Internet stations and receives an additional 16,000 Internet streams.

While you don't need to have a computer to use the NPR Radio by Livio, you must have an Internet connection with a wireless router (or an available Ethernet port for a wired connection). The radio lists for \$199 from liviordio.com, \$159.95 at C.Crane.com or \$180 at NPR.org and just over \$130 at Amazon.com.

More radio-related consumer electronics devices next issue.

What new toy excites you most this holiday season? Tell us at radioworld@nbmedia.com with "Letter to the Editor" in the subject line.

The Smart Choice for Any Budget



Pilot LOGITEK

DIGITAL CONSOLE

Less than a decade ago building infrastructure at even the most modest radio facility was difficult and costly. Today, AoIP is making it possible to replace miles of cables and closed systems with routers that use standardized network protocols. The **JetStream Mini** brings you the benefits of this new technology, and nothing is easier to use, faster, or less expensive. Add a **Pilot** control surface that includes the basic operating features your staff will need and you have the most cost effective AoIP networked audio system available.

The Pilot is easy on the eye and the budget and like the **JetStream Mini**, Logitek has built it with ease of use and durability in mind. The Pilot is a tabletop control surface that includes all of the basic engineering features your staff will need- and more- including 4 Program busses, 3 monitor sections and 24 mix minus busses. It is available in frame sizes for 6 to 24 faders.



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Logitek

PPM

(continued from page 1)

ability to maximize ratings and revenue, according to experts. Radio World asked a half-dozen radio programming consultants whether any universal programming tactics work for PPM and what new challenges it has presented.

Cume — the number of different people tuning to a station — goes up for many stations using the PPM methodology, because the meter is passive; it does a better job of capturing media exposure than the diary system, which relies on human memory, several experts agreed.

And just as PPM reveals that people listen to more stations per week than previously thought, it also shows that people spend less time with each station, which is why two other statistics, time spent listening and average quarter hour, tend to be lower using PPM. As a result, programmers now work to get their listeners to come back for more visits, rather than emphasize longer visits for each occasion.

"I think most of us are generally satisfied with PPM, but it is a work in progress," said Jeff Johnson, senior vice president for Alan Burns Consulting.

"Obviously cume is much higher (with PPM), and stations that typically have a higher cume are doing better than those who do not. It's not important as much how long a person listens, but how often a person listens.

"Recall awareness is still a vital component of success," he continued. "Certainly some of the things that actually worked in the past still work now. However, more than ever, stations are being punished severely for unnecessary or unentertaining content, so streamlining your station is key."

As evidence of that, the experts point to a recent decision by American Comedy Networks to offer streamlined and shorter bits geared specifically for morning shows in PPM markets. Other program suppliers have begun customizing content especially for the PPM world, too, several of the program consultants said.

"In a world that has speeded up from sound bites and tweets, attention spans are short and PPM picks up on that. Programmers and talent are confronted with the challenge to get to the point as quickly as possible," said Alex Demers, president of Demers Programming Media Consultants.

Programmers are employing tactics that play to the strengths and limitations of whatever research is being used, said Demers, who specializes in rock formats.

"Stop-set placement has been altered dramatically, and there is an increased emphasis on significant commercial-free music segments.

PPM Markets Scheduled for Currency in December 2010

Currency Scheduled for December 2010

Pre-currency October and November 2010
Last Diary Survey Summer 2010

Greensboro-Winston-Salem-High Point
Jacksonville
West Palm Beach-Boca Raton
Memphis
Hartford-New Britain-Middletown

Current commercialization schedule available at
www.arbitron.com/portable_people_meters/PPM_rollout.htm



* subject to change

"However, PPM does not erode a station's reliance on its core P1 listeners. Therefore, brand building, consistency of execution and effective external marketing all remain important elements," Demers said.

One talk radio consultant senses PPM paranoia among FM music stations that they should "just clam up and play the music," and that, he says, plays directly into talkers' hands.

"The most successful music stations continue to be those who distinguish themselves by bonding with listeners with what is between the songs," said Holland Cooke, president of Holland Cooke Media. "And (talk) stations and hosts who quickly recognize what is relevant, quickly set the topics and avoid windy monologues, will do well with PPM."

Cooke said it's hard to pick formats that have been winners and losers with PPM, but that the system is demonstrating that execution of any format is really what matters, Cooke said.

Radio has to remember that people listen exactly as they always have, said another consultant.

"(We) are the ones learning a new language. It's really about real usage now," said Jaye Albright, consulting partner with Albright & O'Malley Country Consulting/Radio IQ.

"Having a solid brand is more important than ever — big brands. That really hasn't changed. However, consistent execution on a minute-by-minute basis every single quarter hour is crucial."

NO-TALK SEGUES

Albright said a winning PPM formula no longer includes getting someone to listen on Thursday morning at 7:20 a.m. in the hopes of winning thousands of dollars.

"Instead, you must increase the num-

ber of occasions that person listens. Today you have to try and get them to listen every day, three or four times a day. You can do it with cash and prizes, but it is much more efficient to do it with content."

Chris Elliott, president of Chris Elliott Consulting, said, "No-talk segues between songs have increased because PPM measures all radio that people are exposed to, compared to the diary's recalled listening. There also has been an increase of specific time 'appointments' as programmers attempt to simplify appointment tune-in for interviews, features and contests. Moreover, those elements can now be analyzed with more precision in PPM."

Truth is, there is a lot more beneficial information to decipher from PPM, Elliott said.

"For instance, it was surprising to learn that Monday is a much more important day of the week than we have thought, whereas the diaries had Thursday as the biggest listening day of the week," Elliott said.

"And listening occurs evenly throughout the hour. Diaries had implied the first quarter-hour was dominant, so therefore programmers would load up their best songs and promos in the first 15 minutes of each hour."

Cume is up and TSL is down, the consultants said; classic hits, CHR, country and AC formats have seen nice bumps from PPM, while urban and talk formats have suffered with lower shares.

"Cume has often doubled compared

to what was detected in the diaries. Time spent listening has become 'average time exposed,' and we are seeing that listeners listen in short bursts, evidently asking the question, 'What have you done for me lately?'" said Charlie Cook, vice president of country programming for MeVay Media.

PPM distribution concerns continue for Cook and other programmers.

"Arbitron is still finding their way to a good distribution of meters across age, ethnic and geographic areas. I think Arbitron has had a hard time enticing all demos to carry the meters," Cook added.

Distribution of meters was at the heart of the dispute between Arbitron and the PPM Coalition, which formed in 2008 to



Arbitron is testing its new meter, PPM360, and hopes to roll it out in 2011.

address concerns of minority broadcasters over lowered listening levels of their stations with PPM measurements.

The enhancements agreed to by Arbitron earlier this year, negotiated with the help of House Oversight and Government Reform Committee Chairman Rep. Edolphus Towns, included promises from Arbitron to include address-based sampling with targeted in-person recruiting to increase PPM panelist participation in key markets.

Arbitron has begun targeted in-person recruiting for PPM panelists in high-density black and Hispanic areas, including Dade County, Fla., Miami, Dallas and the New York boroughs of Brooklyn and the Bronx. In-person recruitment helps target population segments that are more likely to be reached by cell phone only, according to the company.

By the end of 2010, in-person recruiting is expected to be in place in high-density black and Hispanic areas for the approximately top 25 PPM markets.

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Use Phone to Speed Site Visits

You Probably Have a Logging Tool in Your Pocket Right Now

ArchTech Regional Engineer Ed Dulaney handles stations in Texas and Oklahoma. The past few weeks he has been experimenting with a new way to log transmitter readings.

WORKBENCH
by John Bisset
Read more Workbench articles online at radioworld.com

Sometimes when Ed visits a site he doesn't have a working pen or has used up the last log sheet and forgot to bring more copies. He started thinking about a different way to do the engineering logs.

Most engineers now carry a cell phone with camera. Why not put it to use?

Now, when Ed goes to a site he simply snaps a picture of each meter. Fig. 1 shows the frequency counter. In



Fig. 1 (above): A cell phone camera can be used to 'log' meters.



Fig. 2 (left): A photo of the transmitter power meter.

Fig. 2, a transmitter power meter value is displayed.

When Ed gets to his computer, he downloads the pictures into their appropriate station folders. He keeps a folder for each station on his computer, as seen in Fig. 3, and the photos are placed into the appropriate place as you see in Fig. 4.

An added benefit is that the camera records the time/date stamp with

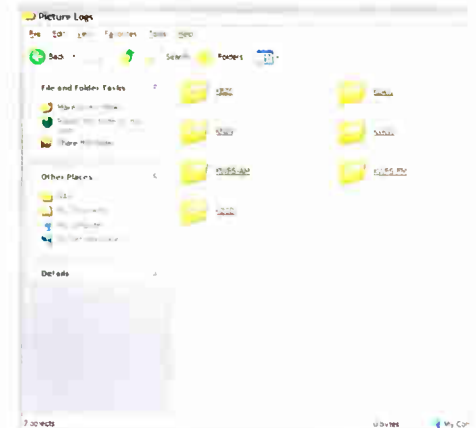


Fig. 3: Photos are stored in files for each station ...

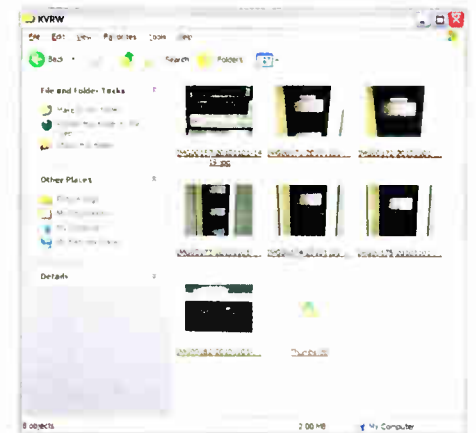


Fig. 4: ... and each folder holds the pictures of the visit's inspection.

each photo.

It's a novel approach to a mundane task. I imagine this could be relegated to a junior engineer, with the chief reviewing the photos.

Reach Ed Dulaney at eddulaney@archtechnical.com. Got a good idea of your own to share? Remember, that's

(continued on page 16)

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transmission cutoff characteristics or to emulate the response of typical AM radios.

Menu-driven from the front panel, the 525 tunes in 1kHz steps and has five station memories that can be preset to your own station and to market companions. The high-resolution, peak-holding LCD readout shows positive and negative modulation simultaneously, and also switches to display the incoming RF level and asynchronous noise to

Just how good (or bad!) does your AM signal really sound?

qualify modulation readings.

Two sets of peak flashers indicate both absolute and user-programmed modulation limits, and programmable front-panel alarms (with tallies) give overmodulation, carrier-loss and program audio-loss warnings. The 525 is supplied with a weatherproof loop antenna at no extra cost.

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WORKBENCH*(continued from page 14)*

what *Workbench* is all about. E-mail me at johnpbisset@gmail.com.

Bob Meister needed to run an AM transmitter on a dummy load for a while, in order to set up a station's IBOC parameters. The 1 kW transmitter has a female N connector output, but the dummy load was terminated in a 3-1/8-inch EIA bullet.

There were several solutions: First, he could buy the appropriate 3-1/8 EIA-

to-N adapter for about \$400. This was too expensive for something needed only a couple times a year.

Bob could connect a coax pigtail to the transmitter and use the clip leads from an operating impedance bridge to connect the coax to the EIA connector. However it's easy to forget to bring the OIB to the site.

The third choice was to make something cheaper that will work as well.

Bob figured that if the open wire connection made with the OIB was an acceptable load for the transmitter, a piece of coax attached directly to the EIA

connector also could get the job done.

To construct the cable, Bob cut a piece of RG-214 coax about five feet long (but any length should do) and crimped a male N connector to one end. This end would fasten to the transmitter output.

He prepared the other end by stripping 2-1/2 inches of outer insulation from the cable, then cut off the braid so about 2 inches of center conductor and insulation was exposed. Bob saved the braid, folded it flat, tinned it and wrapped it around the existing braid. He then soldered it to make a ground lead.

To that braid, Bob crimped and sol-



Fig. 5: Bob Meister's DIY connector adapter. Note the notch for the center conductor.

dered a ring lug, then cut it open to fit over the 3/8-inch stud on the EIA connector. Several layers of electrical tape were used to cover the braid connection. He then removed 3/4 inch of center insulation and flattened the inner conductors of the RG-214.

Bob then cut a 2-inch piece of copper pipe that previously had been used

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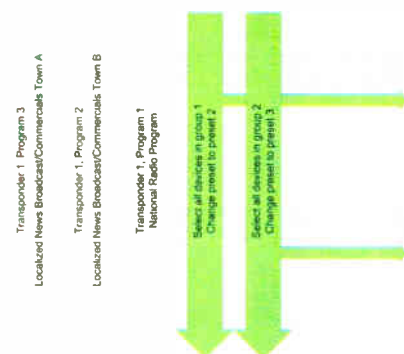
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MARKETPLACE

SATELLITE COMMAND: 2wcom's Satellite In-Band Control (SIC) System allows users to manage and service a satellite receiver network remotely without a physical network or Internet connection. By injecting the network control data into the MPEGII transport stream at the uplink, the data can later be extracted and processed by the receiving 2wcom DSR01 or DSR02.

This method is useful when managing equipment in remote locations that have unreliable or poor outside connectivity. Also, SIC enables users to target devices by device type, by group or as an individual device. This is helpful when, for example, a new configuration needs to be distributed to a greater number of devices.

SIC can be used to switch external devices connected to one of the DSR's



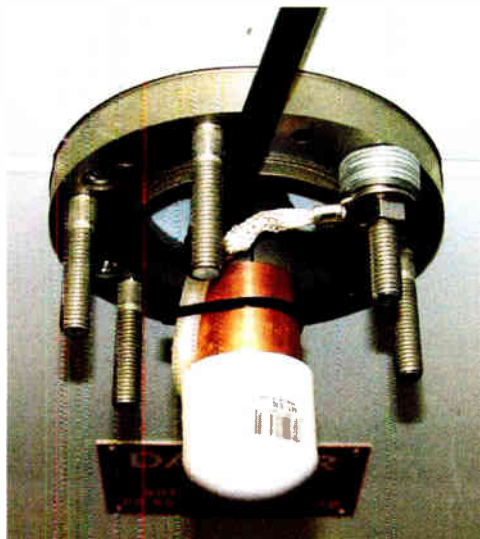


Fig. 6: The connector adapter is installed on the dummy load flange.

as the center conductor in a 3-1/8 EIA environment. This pipe measures 1.225 inches inside diameter and 1.325 inches outside diameter. He cleaned the outside of the pipe first with emery paper, then

some Noxon brand metal cleaner.

Bob's Weller 325W soldering gun had no trouble heating the end of the piece of pipe. Bob flooded about a 1/2-inch area on the outside surface at one end with solder, then stuck the end of the RG-214 coax into the puddle, added more solder and let it cool off. The excess flux scraped off easily.

Bob used a 1-inch PVC smooth pipe cap, which fit snugly over the copper pipe. He cut a notch in one side about 1/2-inch wide so it could be positioned around the center insulation of the coax, as seen in Fig. 5. Some clear RTV sealant then was

applied liberally around the pipe cap and over the connection to offer some margin of safety. A tie wrap was used to secure the coax to the copper pipe.

Installation was straightforward. The pipe fit snugly over the center conductor of the EIA flange connector. The six studs coming out of the EIA connector aren't threaded all the way down to the flange, and this was something Bob hadn't planned on. A bunch of flat washers were used to build up the thickness so the nut would tighten down on the solder lug. See the photo of the attached adapter in Fig. 6.

The best part was the total cost: about \$10, most of which was the RG-214 coax and the crimp-on N connector.

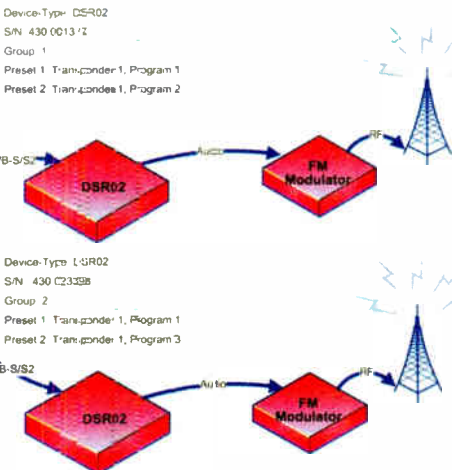
Robert W. Meister, WA1MIK, can be reached at walmik@comcast.net.

John Bisset marked his 40th year in radio in broadcasting recently. He works for Tieline Technology and is a past recipient of the SBE's Educator of the Year Award. Reach him at johnpbisset@gmail.com or (603) 472-5282. Faxed submissions can be sent to (603) 472-4944. Submissions for this column are encouraged and qualify for SBE recertification credit.

relay outputs, change presets, change audio output to internal or external backup sources, transfer files to internal memory, update configurations and update the devices firmware remotely.

The example shown explains how the system can be used to deliver localized content on a national broadcast. Here two programs are delivered by the same satellite. At the beginning of each hour, a national news broadcast is made (program 1), followed by a localized news broadcast and localized commercials (programs 2 and 3). As soon as the national news broadcast is complete, the DSRs in both groups 1 and 2 get the command to switch to preset 2. Devices equipped with the optional audio fading make this process smooth. After the localized news and commercials, the DSRs get the command to switch back to preset 1.

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The Man Behind the (Ribbon) Mic

Some Old Microphones Never Die; They Make Their Way to New Jersey

BY JAMES E. O'NEAL

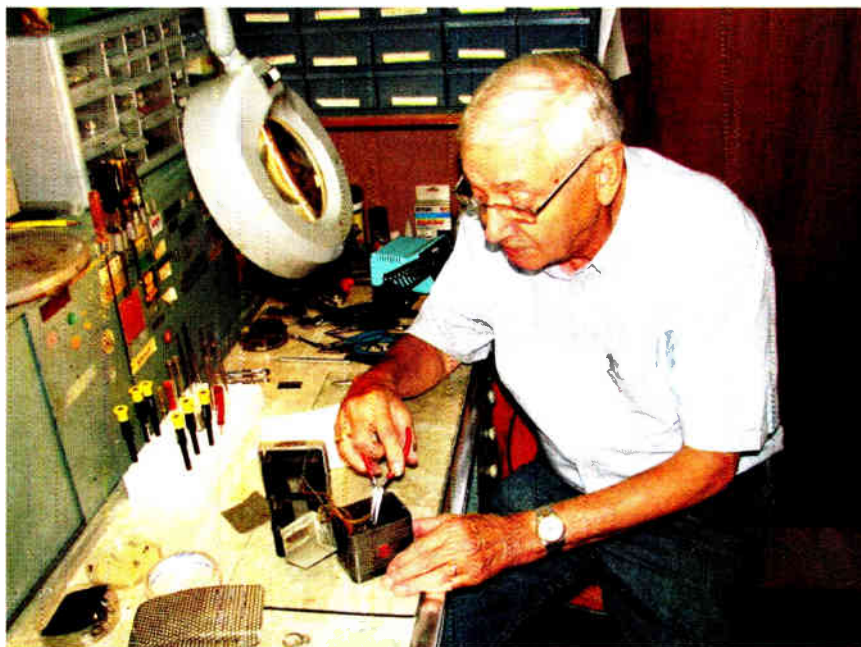
PITMAN, N.J. — Clarence Kane possesses a skill set that may make him unique in this age of “if it’s broke, throw it away” and “nothing’s made in America anymore.”

NEWSMAKER

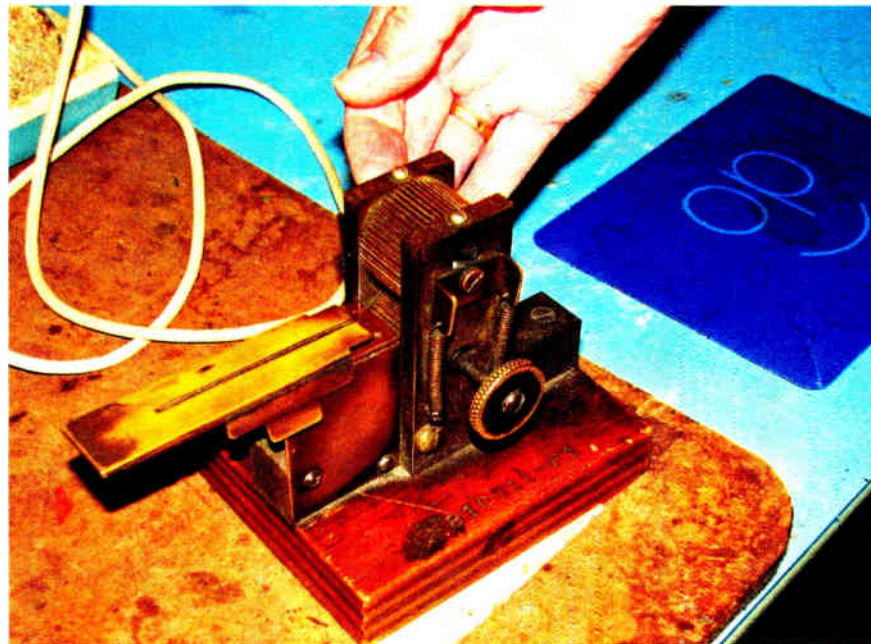
He repairs ribbon (or, more correctly, velocity) microphones, and has been doing so for more than 30 years. Kane’s customers have included Les Paul, Chet Atkins and Pixar Animation Studios.

While Kane repairs and rebuilds all types of ribbon mics, the overwhelming majority of his business centers around classic RCA issues, even though the last of these was sold more than 30 years ago.

Business is good. On average, Kane rehabs two microphones per week, or around 100 per year.



Clarence Kane plies his trade of more than three decades of microphone repair.



This machine was created to corrugate the ultra-thin aluminum strips used in ribbon microphones. It dates to the 1930s and is still used by Kane to fabricate replacement ribbons.

The curious thing is that he didn’t start out as a microphone repairman. In 1946, when Kane signed up for GI Bill classes at the Radio Electronics Institute in Philadelphia, he wouldn’t have thought he’d ever have much if anything to do with mics.

“I was hired by RCA in 1952 and wanted to be a lab technician or wireman for the company,” Kane said. “After I finished my two-year electronics training, I worked for a scientific glass firm and then installed TV sets and antennas for a furniture store. I even

worked for a while with a contractor in building houses.”

Kane’s career track changed with his association with RCA, as he eventually became a field rep, traveling around the country — and the world — as part of the company’s service organization, installing broadcast equipment at radio and television stations.

“I worked on installing gear at places like WPIX, KTVU and WCAU,” Kane said. “In one case, I put in a complete FM station on the upper floor of a private home that was being used as a

assigned to help out with microphone repair. Finally, I was asked if I would do this on my own time, with RCA referring their microphone customers to me. I repaired microphones on the weekends.”

In 1986, RCA’s overall business and financial state had declined to the point that led to the takeover of the company by General Electric. Kane decided that this was a good time to part with the firm that had been his employer for some 34 years.

He purchased all of the remaining specialty microphone tools and parts, including the extremely thin aluminum material used as the element in such microphones as the 44s, 74s, 77s and BK-5s. The “ribbon” was sold in “books” of 20 sheets each and is a mere 1/10,000 of an inch thick. Even though Kane has been using this supply steadily since starting his own company in 1986, he still has a bountiful supply.

ENAK Microphone Repair (the acronym is Kane spelled backwards) started out sharing space with an audio company in a commercial building; when the other operation moved out, Kane

RCA Commercial Communications
Systems Division
Broadcast Systems

Kane
Bates
Kennedy

Date June 28, 1978

Number BA-3

Facts and Features

Subject

77DX MICROPHONES

TO: All Domestic and International Field Salesmen

We have sold the last of the venerable 77DX microphones. Please do not accept any further orders for this item.

The appropriate substitute item is the Electrovoice model number RE-15. This item is listed on page 3 in the Audio section of your price book.

Don Massa
Don J. Massa
/nt

The announcement from RCA’s chief of sale, Don Massa, announcing the end of the line for the company’s popular 77DX microphone. He recommended steering business to Electro-Voice and its RE15 mic.

business office by a Realtor who wanted to go into radio.”

MIC REPAIR

Kane’s career shifted again in the 1970s as RCA’s business began to change.

“The company had kept seven or eight people — mostly women — busy repairing microphones, but by the late ’70s, that part of the business was really falling off.

“I was working on things like TP-7 projectors then and was occasionally

couldn’t justify the large space and relocated the mic repair business to his home in this small New Jersey town.

ORIGINAL EQUIPMENT

Kane still uses the same repair bench at which he worked 40 years ago in RCA’s broadcast division in Camden, N.J., and has plenty of room for the tools of his trade.

These include a small “anechoic chamber” for sweep-testing mics, the original hand-powered machine first

(continued on page 22)

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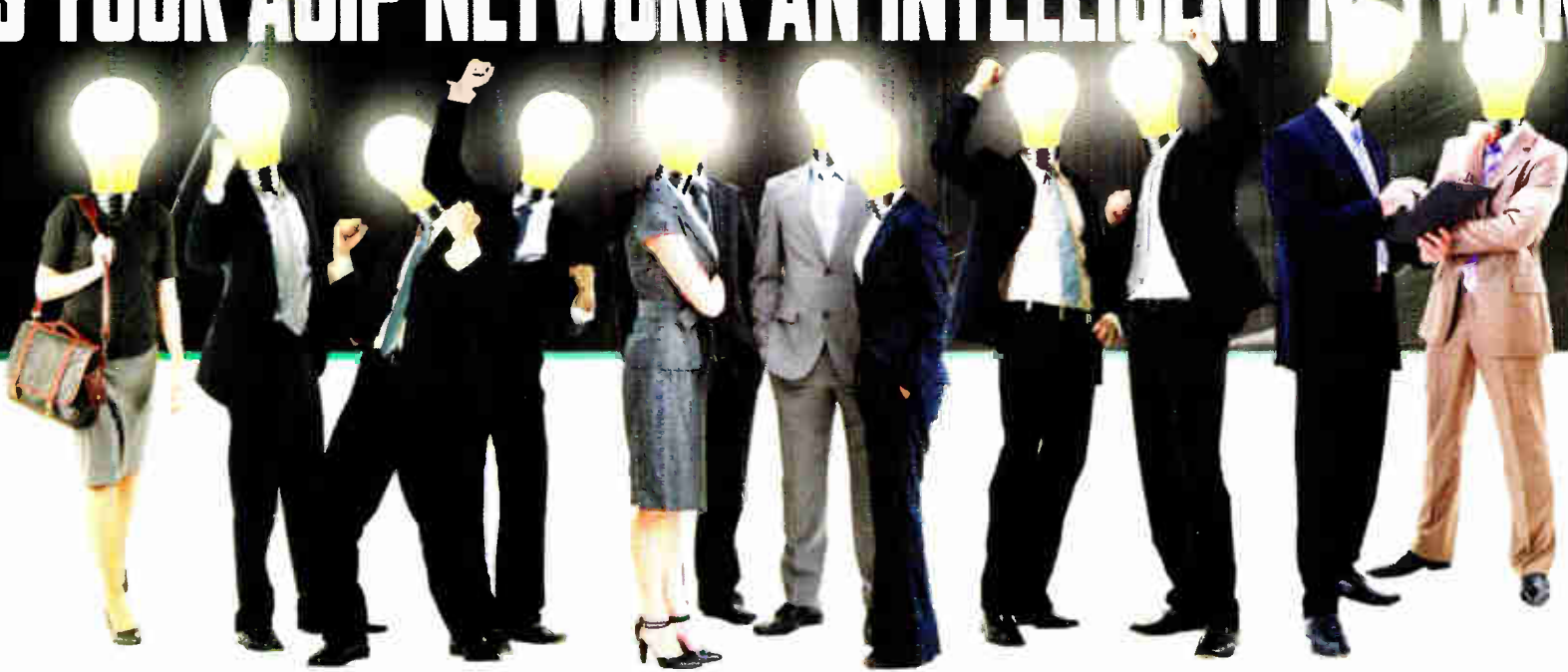


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World Radio History

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2. WheatNet-IP Intelligent Network is self-healing.



WheatNet-IP offers as many points of recovery as you have BLADES in your system. In the exceptionally unlikely event that a BLADE should fail, just plug an alternate in and you are up and running. Since each BLADE has the entire WheatNet-IP Intelligent Network's configuration embedded in its DNA, the new BLADE inherits its function immediately and you are back up and running. Pretty cool, eh?

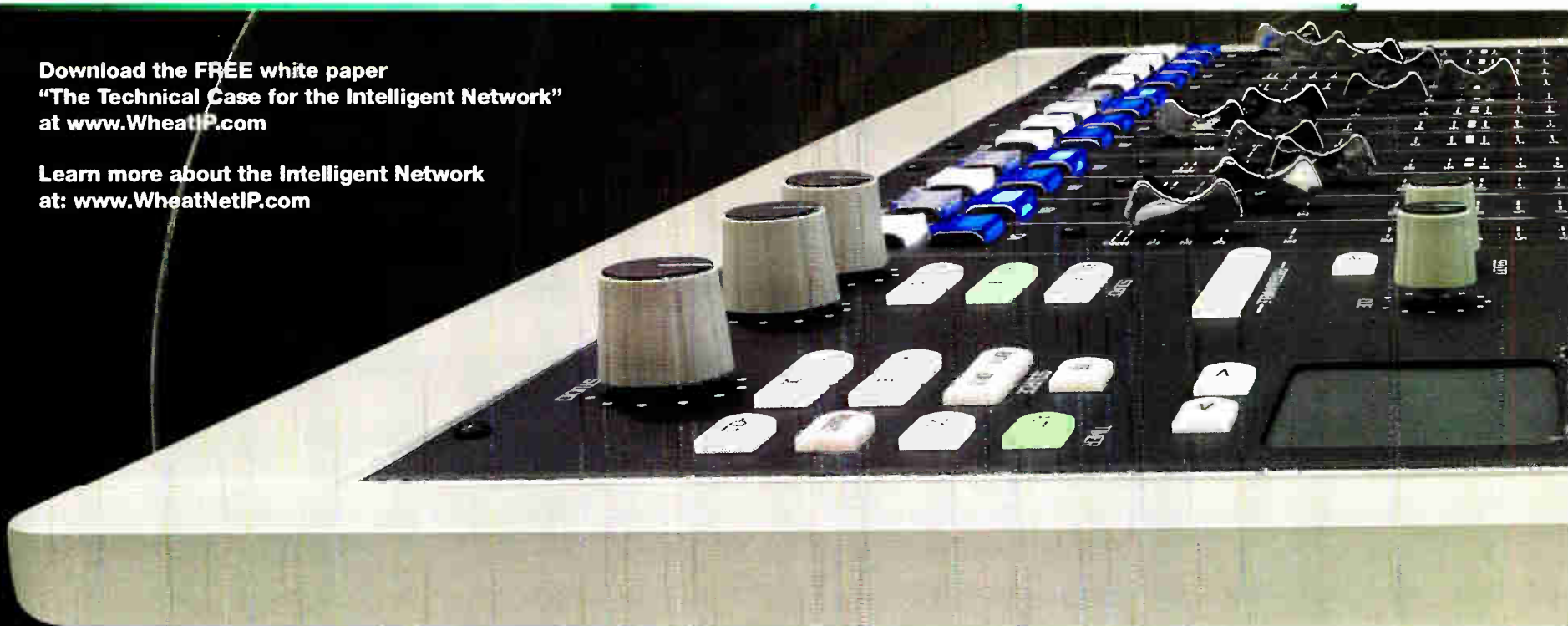


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4. WheatNet-IP Intelligent Network is NOT more expensive.



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KANE

(continued from page 18)

used in the 1930s for corrugating aluminum ribbons for the early velocity microphones designed by RCA's legendary audio guru, Harry F. Olson, as well as a number of special dies for cutting ribbon material to exact size for a variety of mics.

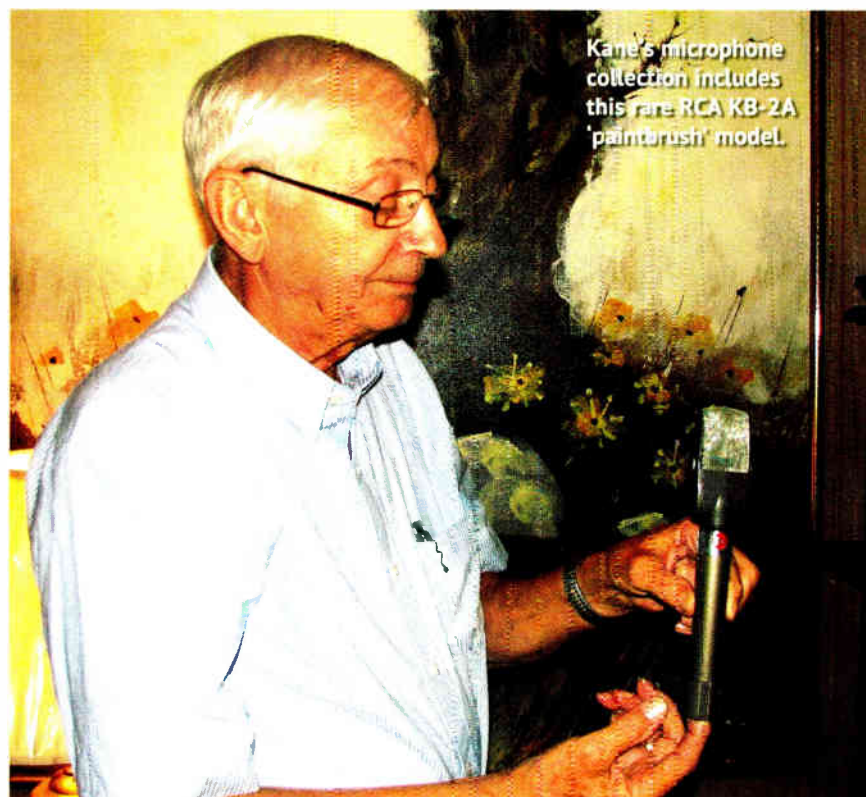
Kane has most of RCA's ribbon mic documentation too, including engineering blueprints for the model 44A, which dates to 1932.

Even though the last of the RCA 77s

was sold in 1978, there is still a great demand for the microphone, due to its unique double-domed shape and its performance characteristics. (It appeared as the desk mic during Johnny Carson's reign over the "Tonight" show and is seen on "Larry King Live.") This particular microphone also is revered by a number of recording studios and performers.

HOPE FOR THE HOPELESS

When asked if he has ever turned away a microphone as a "basket case" or otherwise just too damaged to repair, Kane hesitated slightly, then answered



Kane's microphone collection includes this rare RCA KB-2A 'paintbrush' model.



Kane with another of his ribbon mics. The device behind him is used for sweep-testing the frequency response of repaired microphones.

For sure, it's not a smartphone.

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MAYAH

COMMUNICATIONS

"just once." This was a microphone of Italian origin, the ribbon design and structure of which were impossible to emulate.

"I've never given up on RCA mics, though," said Kane. "I received a 77 that had been underwater, with everything completely corroded. It took a lot of work, but I was able to save it."

As it's been more than three decades since RCA stopped making microphones (and replacement parts), Kane maintains a business relationship with a machinist who can accurately emulate many of the fittings and small parts used in the mics. This extends to replacement screens (grilles) and yokes for some models. Ditto the special silk cloth used

under microphone openings.

Kane only repairs ribbon mics and has grown fond of this subset of acoustic transducers over the years. He maintains a nice collection with such rarities as RCA's miniature "paintbrush" ribbon and even some microphones (ribbon, of course) from other manufacturers such as Amperite.

Kane celebrated his 84th birthday in August and was asked if he was considering retirement.

"Never," he responded. "I'm going to keep doing this for as long as I can."

Frequent contributor James O'Neal is technology editor of *TV Technology*. He wrote here about Mary Day Lee in May.

FEATURES

MARKETPLACE

ANALYZE THIS: U.S.-based audio analyzer manufacturer Audio Precision began shipping the next addition to its APx analyzer range, the APx515, at the end of August.

Designed as an entry-level product in the APx range, the APx515 is an affordable integrated test and measurement solution, retailing for \$6,200.

The system offers many of the functions of more expensive members of the APx range, and brings typical THD+N of -106 dB, 24-bit FFTs and 192 kHz digital I/O.

The APx515 lacks the modularity of the other



members of the APx range; it is fixed at two channels of analog inputs and outputs, plus the two-channel digital

I/O. It lacks the ability to add expansion options such as AP's high-bandwidth functions, an I²S serial-level interface or AP's analog signal generator add-on.

But the 515 runs the same core software as the other APx models, and T&M routines designed to work on other APx analyzers are compatible with the APx515, within the limits of its functions and I/O.

AP says this compatibility was included with an eye to making the 515 suitable for production-line testing.

The idea was that a design department could create a manufacturing T&M routine on one of AP's more expensive analyzers and then port the same routine to a series of less-costly APx515s on the production line.

The same concept applies to broadcasters, who might use one of AP's more fully-featured APx analyzers at a broadcast hub, and equip regional centers or transmission stations with the more affordable system.

The 515 can be integrated into larger test systems controlled by LabView if required, and offers the APx High-Speed Test option. This is popular in broadcast circles as the analyzer can make audio measurements required to test a station in less than three seconds, minimizing on-air time devoted to testing.

Info: www.ap.com.

SAGE+GSS: Sage Alerting Systems and Global Security Systems are working together, expanding their respective offerings to organizations seeking to build new alerting infrastructures.

Sage makes alerting equipment including EAS gear. GSS is a systems integrator, satellite service provider and manufacturer of an FM radio-based alert system. Now Sage can offer dissemination of emergency alerts through the GSSNet Satellite Network in addition to Internet delivery and station-to-station relay capabilities. The companies said a regional installation in Texas is the first product of their partnership.

Info: www.sagealertingsystems.com and www.gssnet.us.

PLAY ME: Talk about product categories that didn't exist a few years ago ... Musical device maker Korg's MP-10 Pro calls itself a "Professional Media Player." It plays MP3 and MIDI



files stored on a jumbo 120 GB hard drive. Dual internal "players" allow for DJ-style operation (e.g., cueing, cross-fades). Programmable buttons allow for effects/clip triggering.

Other fun features include a vocal remover, XLR and 1/4-inch mic inputs along with video outputs to provide a karaoke cornucopia. Onboard effects and a TC Helicon vocal processor are included. The MP-10 also touts substantial such functions for dealing with large amount of content that can accrue on a 120 GB hard drive. A QWERTY keyboard input allows for song data input and customization. Price: \$2,700.

Info: www.korg.com.

Digital I/O (Without the side effects)

At Lynx Studio Technology, we make it a habit to be unaffected. That is, our line our PCI and PCI Express audio cards have no Digital Signal Processing (DSP) effects added to them. No EQ, no limiting or compression, no time-scrunching, no loudness processing - nothing. So the sound you put into them is the sound you get out of them.

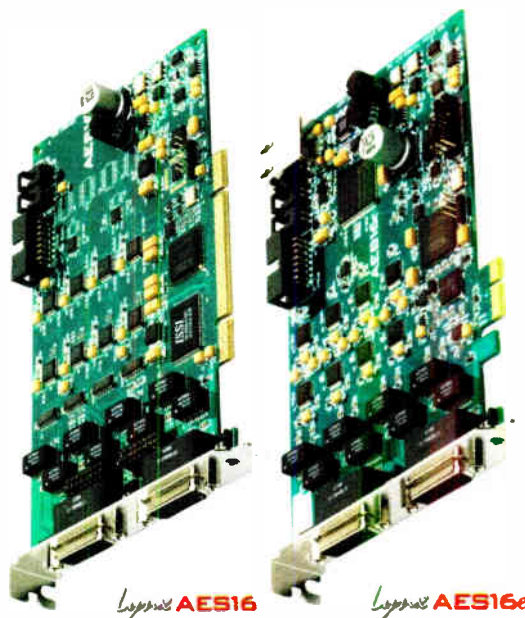
Why is this important to you? First, most of the audio applications that power your radio stations now have extensive DSP built into the app or available as plug-ins. These software tools give you more control, customization and recallability than

comparable hardware tools. Plus they are easily updatable.

Second, how would we know what DSP would be ideal for you? AM, FM, online, digital, analog, talk programming, type of music genre? You have all those answers, we don't.

Third, why should you pay for the cost of DSP that you probably don't need and won't use? At least that's what they think at companies like Dalet, Harris Broadcast, Sirius/XM Radio, National Public Radio, HBO, CBC (Canada), TSA Telefonica (Spain) and many, many others. Lynx audio cards' sound quality, driver stability and rock-solid reliability are the crucial elements for these discriminating customers.

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AVAILABLE AT



He's the Man in the Van

For Contract Engineering Work, A Van Is Superior To a Pickup or Car

BY MARK PERSONS

One thing I have learned over the years is what kind of vehicle best fits my business for getting the radio broadcast engineering job done. It is a Chevy/GMC Savana van, similar to what a plumber or electrician might drive. Ford has a competing model.

TECHTIPS

I feel a van is vastly superior to a pickup truck or car because of its ability to carry huge amounts of gear inside, out of the weather. There is room for objects even 10 feet long.

The van I drive has a sliding side door on the passenger side, which is better than swinging doors in the garage at my office. For protection in an accident, the van has a metal wall between the passenger and cargo compartments.

One downside is limited visibility at the rear when backing up. To help solve that problem, I use a backup camera, which cost about \$75.

This van comes with all-wheel drive, similar to, if not quite as good as, four-wheel drive. For me, in mostly flat-land Minnesota, it is excellent; I haven't been stuck yet.

My van's gross vehicle weight rating fully loaded at 7,300 pounds results in only 17.1 miles per gallon, when measured over 5,000 miles of driving, at an average of 41.7 miles per hour, though this is a small price to pay when getting the job done. Also, it is a two-passenger vehicle so it isn't a family car.

It won't win any beauty contests either.

TRICKED OUT

I remember an auto salesman telling me that a new car is a "chick magnet." He said young women will do almost anything to ride in a new vehicle.

Well, when buying this most recent van, it didn't happen that way. I think the car salesman lied to me! But maybe it is because the van is far less than a sports car. Regardless, I am sold on this kind of transportation for this kind of work.

There was a fair bit of radiated



engine electrical noise in the factory AM radio in this van. GMC apparently has turned a blind ear to this problem. It probably has everything to do with the Vortec engine. I put bonding straps to the body on the exhaust system, on two computers in the engine compartment and on the engine hood. This tamed the problem down so it is acceptable.

Inside the van are rows of shelves with cardboard boxes measuring 13 x 7 x 3.5 inches. The boxes hold parts and are labeled accordingly.

The parts include F connectors, D connectors, N connectors, RJ-45 connectors, crimp terminals, tie wraps, heat shrink tubing, AC wall power supplies, DC wall power supplies, AM coil clips with strap, ceramic insulators, high-voltage rectifiers, semi-conductors, three boxes of

telco parts, two boxes of relays, computer cables, EAS system parts. Sine Systems parts ... and the list goes on.

One box is an emergency overnight kit with shaver and toothbrush.

Tools include binoculars for looking at tower problems, spectrum analyzer, Chris Scott AM loop antenna, AM field intensity meter, EIA cable adapters, return loss bridges, AM operating impedance bridge, AM receiver/generator, satellite alignment tools, oscilloscope, audio generator with distortion analyzer, frequency counter, transistor

tools arranged in pockets for easy availability. I hope to tell you about that in an upcoming article.

The van floor has test equipment in travel cases, cable, boots for walking in AM swamps, a shovel, an electric heater (remember, I work in Minnesota) and a set of six drawers from American Van that contain more parts such as cable connectors. On top of those drawers is a space to put equipment that is coming from or going back to a client station.

It all makes perfect sense for someone who spends a lifetime repairing radio stations.

READY FOR THE CALL

Power for extra devices in the van is supplied by an MFJ-1124 12 volt distribution panel. Connected to it are some ham radios, a spectrum analyzer outlet and lighting for the interior of the rear of the van. The extra light is a custom-built project with four ramps, which are turned on with one of two pushbuttons and turned off automatically by a two-minute timer. It works great at night when I'm rummaging for parts.

Knowledge on how to repair a radio station is required; but so are tools and parts to get the job done.

It was in the U.S. Army that I learned to keep the van gas tank above half most of the time; the phone can ring at any moment with a request to go out to fix a dead transmitter, and I like to be prepared.

The author wrote about backup power generators in October. For more good ideas, visit radioworld.com and click on the Tech Tips tab under Columns.

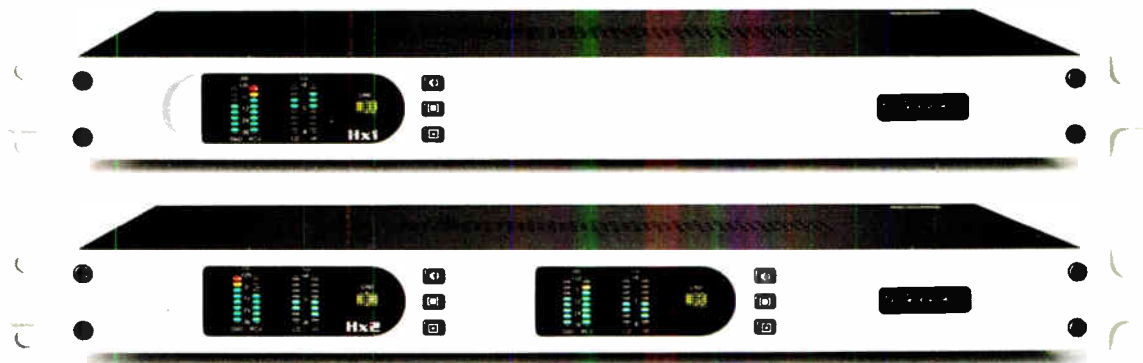
Mark Persons, W0MII, is a Certified Professional Broadcast Engineer and has more than 30 years experience. His website is www.mwpersons.com.



tester, Sencore Z-Meter, FRS two-way radios, camera, huge wrenches, spare hand tools in case there is a problem with tools in my tool and much more.

The tool kit I carry looks like one that a telephone repairman might have used years ago. It has all of the usual hand

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World Radio History

KPCC Moves, Expands Facilities

SoCal Public Radio Station Deals With Trains and New Infrastructure

BY DOUG JOHNSON
 Director of Broadcasting
 KPCC(FM)

PASADENA, CALIF. — KPCC(FM) is licensed to Pasadena City College, but since 2000 it has been operated and

FACILITY PROFILE

managed by Southern California Public Radio through what is essentially a non-commercial version of an LMA.

SCPR is a member-supported public radio network that operates KPCC at 89.3 MHz in Los Angeles and Orange County, KUOR at 89.1 in the Inland Empire and KPCV at 90.3 in the Coachella Valley. It reaches approximately 680,000 listeners every week and is the most listened-to public radio news service in Southern California.

SCPR is associated with American Public Media in St. Paul, Minn., which owns and operates Minnesota Public Radio and other for-profit and nonprofit businesses.

KPCC's transition to SCPR management is a fascinating story. In short, KPCC's role as a college and community radio station prevented it from developing a coherent program schedule, which in turn kept it from becoming

a significantly competitive station in the Los Angeles market.

After SCPR took over operation of the station, it established a program schedule based on public radio's signature programs, and began to build a significant local news department.

Capital and technical expertise from St. Paul were critical in the early stages of the transition, as was the recruitment of a new CEO, Bill Davis, a former manager of WUNC, Chapel Hill, N.C., and a vice president for programming at NPR.

REDESIGN

The station facility at Pasadena City College was not designed for a full-time

news operation. KPCC quickly outgrew those cramped quarters on the lower level of KPCC's main library building,

and made the decision to develop a new off-campus facility.

In order to ease crowding, many employees were moved to an office in downtown Los Angeles, which KPCC shared with American Public Media's Marketplace Productions. Eventually, only daily broadcasting staff was left



Top: Master Control

Left: Talk Show Booth



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www.gorman-redlich.com

257 W. Union Street, Athens, OH 45701
 Phone: 740-593-3150

at PCC, with most of the news, sales, development, marketing and management staff in the downtown office. As you can imagine, communication and coordination were huge challenges for us.

In 2005 we began looking for a new building suitable for broadcasting and large enough to house our staff in one location. Contractually we were limited to moving within the college's operating district in Pasadena, but its large and evolving business districts presented numerous options.

We established several criteria for our new broadcast center.

First, it needed to be large enough to accommodate the station staff, which had grown to about 80 full-time employees, and large enough to accommodate planned growth.

We wanted two large talk show studios with control rooms, a news host booth, production studios, editing booths and a master control studio for monitoring various tech systems and running the station during off hours.

We also wanted a large auditorium suitable for community and station events, as well as live or taped broadcast events.

Early in our search we found a two-story building with 30,000 square feet. It was located near downtown Pasadena and convenient to three major freeways, always an important consideration in Los Angeles.

LESSONS LEARNED

Here are a few lessons I learned from this experience.

1. Be careful of soft "plug-in" or "place-holder" numbers in the budget planning phase. These have a way of becoming hard numbers over time, with the budget manager holding you accountable for the costs.
2. Manage expectations with your staff long before transitioning to the new facility. At monthly staff meetings I reported on the project status and always included design or functionality cuts made due to budget restrictions.
3. Locate a secure area on the job site for equipment storage and staging. We were given this piece of advice from our Minnesota colleagues and took it to heart. We created a large caged area in our underground parking lot. Unfortunately the contractors needed to get into the space to reinforce beams for the new auditorium construction. Within days a brand-new Honda portable generator was stolen from the "secure" storage.
4. Involve a high-level IT network administrator. For several months after going on the air with our Axia system we experienced unusually high traffic on our corporate network. Eventually we discovered that some of the ports on our Cisco switches were configured incorrectly and data packets from the system were flooding on to our corporate network.
5. As soon as you begin broadcasting from a new facility, you move directly from the construction phase to the maintenance and troubleshooting phase, whether or not your building is actually finished; ours was not.
6. You can plan to the finest level of detail only to discover your on-air/production staff will have requests you didn't consider. Monitor placement, chair types, keyboard trays, speaker locations, etc. Understand that changes in design are inevitable; this will help reduce stress.

There was a hitch, though. The fairly new Metro light rail line connecting Pasadena to Los Angeles ran immediately behind the building, with the tracks only a few feet from the back wall.

We hired Veneklasen Associates in Santa Monica to take vibration and noise measurements. They concluded the noise could be controlled successfully with appropriate construction methods, so the decision was made to purchase the building.

The next few years were spent ramping up a capital campaign to raise money for the broadcast facility; secur-

ing architects, general contractors and integrators; and choosing broadcast technologies.

Architectural responsibilities for the project were divided. Design for the building itself was done by the architectural firm of Chu/Gooding in Los Angeles; studios were designed by the Russ Berger Design Group of Dallas.

Pasadena has a strict architectural and historical review board requiring new construction to adhere to the town's architectural heritage and image. Having a local firm made it much easier to interact with the city and guide us

through the permitting process.

Given the challenge of building studios next to a light rail line, we wanted to use a top-level studio designer, and the Russ Berger Design Group has a well-deserved reputation for excellent sounding broadcast booths. Its team monitored studio construction, paying close attention to the floating floor, designed to mitigate ground vibrations from the passing train.

We selected L.E. Waters of Los Angeles as the general contractor for construction. We had worked with L.E.

(continued on page 28)

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GEAR CHOICES

A sample of the station's equipment. Much was purchased new for the install:

Make	Model	Item
Audemat	Relio	Remote control system
AudioScience	AS6585	Audio interface cards for Axia network
Axia Audio	Element	Surfaces, nodes & accessories
Balsys	Global Dist. Portal	Universal audio interfaces
Broadcast Electronics	IDI 20	HD Radio data importers
Cisco	Catalyst 3560/4500/6509	Routers (broadcast and nonbroadcast duties)
ClearCom	Eclipse Digital Matrix	Intercom
Comrex	Access/Matrix	Codecs
DaySequerra	M3	AM/FM/HD Radio monitor
Dell	Dimension	DAW computers
Dell	Optiplex 170	Studio and other workstations
Denon	DN-C620	CD players
Digidesign	Digi 003	DAW interfaces
Dorrough	40 AES/280-D3	Digital loudness meters
Dorrough	1200	Stereo signal test set
Electro-Voice	RE27	Microphones
ENCO Systems	DAD Pro 32	Automation system software and hardware
ESE	ES-185U	Master clock/timecode system
Fostex	6301 BEAV	Monitor
Furman	M8DX	Power conditioners
Genelec	8030A/8040A	Speakers
Genelec	7050B/7060B	Subwoofers
Harris	HD Link STL	Digital microwave STL
Harris	Intraplex	T1 STL system

Make	Model	Item
Henry Engineering	Multiphones II/Minipod	Headphone master/slave system
Hewlett Packard	Proliant DL 360/380	Servers incl. Web duties
HHB	CD-882 Dual Burn	CD burners
Int'l Datacasting	SR 2000 Pro	Satellite receivers
Moseley Broadcast	LanLinkHS900	STL LAN link
Orban	Optimod-FM8500	Processor
Radio Systems, StudioHub	Hub HUBB-DC	Eight-channel hub
Sage Alerting Systems	Digital ENDEC	EAS encoder
Shure	Beta 87/ KSM32SL	Microphones
Sony	MDS 12	MiniDisc recorder
Sony	PCM R-700	DAT recorder
Symetrix	Air Tools 6100	Profanity delay
TASCAM	122 MKII	Cassette recorder
TASCAM	CDRW901SI	CD burner
Telos	One + One	Dual digital hybrid
Telos	2101	Studio interface
Telos	Desktop Director	Control surface
Telos	Zephyr	ISDN codecs
Ultimate Support	TS-100B	PA speaker stands
Wheatstone/Vorsis	M1	Microphone processors/preamps
Yamaha	Stagepass500	Portable PA system
Yellowtec	Various	Mic/monitor arms, pole mounts

Among other gear not shown are Chatsworth and Electrorack racks, Popless filters and Windtech wind-screens for the EV mics, ProCo mic cables, On Stage Stands desktop mic stands and Sony headphones.

KPCC

(continued from page 27)

Waters on construction at our downtown studio location, were confident in their work and had good management relations with the company.

By 2008 it was time to make key technical decisions.

Some choices were clear. We already owned and used a robust ENCO Systems play-to-air system and were satisfied with its operation and technical support. We

upgraded to their new single RU workstations and added several more workstations for the larger facility.

EQUIPMENT CHOICES

We also already used Digidesign Pro Tools as our primary studio DAW and upgraded to the Digi-Rack 003 in the new studios. Over the years we have tried many different CD players and burners and were happy with Denon products. We had long experience with Electro-Voice RE27 microphones and chose to install them for guest positions,

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Technical Operations Center

but decided to use higher-quality Shure SM32SL condenser microphones for the host positions.

In the end, the biggest decision, and the one creating the most debate, centered on control surfaces. We narrowed our choices to four and visited stations using those systems; each manufacturer visited us to make their pitch. We selected Axia Livewire, in part because our colleagues at Minnesota Public Radio recently had completed a \$50 million construction project using Axia, allowing us to build on their experiences.

We contracted with Harris' millwork division to design and build studio furniture. The designs included hydraulic adjustment for the host positions in key studios allowing for either stand up or

sit down configurations.

The next technical hurdle was identifying and hiring a systems integrator. There are several good integrators in the area, but few had experience with the Axia systems. Since Axia is assembled more like a voice and data network, traditional integration approaches do not work.

In the end we chose to work with Tom Nelson and his technical staff from Minnesota Public Radio. They had deep experience with Axia products, had recently completed a similar project and were familiar with our personnel and structure. Tom is a top-notch RF/studio technician and has general construction experience.

Having someone on staff who can read blueprints and converse with gen-

eral and subcontractors (especially electrical contractors) was valuable. We also knew it would be a great experience for our local chief engineer, Lance Harper, to have an active role in building out a facility and knowing its internal structures.

MIGRATION

One of the biggest operational challenges was how to transition our various signal paths to the new location without service interruption.



SCPR Chief Engineer Lance Harper and Doug Johnson

The design includes an auditorium for community and station events, press conferences and broadcast shows.

We settled on a temporary T1 connection between our new facility and the existing transmitter location. This allowed us to transition to the new building methodically. We began with early-evening test broadcasts from the new studios. Once we were confident we could broadcast from the new location, we began to increase broadcasts from the new building over a two-week period.

In early February of this year we made the permanent change to the new facility. That weekend we moved our Pasadena based staff to the new location. A week later we moved in the L.A. staff.

Once in the building our first issue was with our Pro Tools interface. With our old analog consoles it made little difference what the Pro Tools session parameters were set for. But with our new Axia consoles we set 24-bit/48 kHz as our default digital reference. This required all Pro Tools sessions to be set to the same configuration.

News sessions worked well with this system setup, but many of our reporters and producers needed access to old sessions with noncompliant session parameters. We quickly sorted out the transfer protocols within Pro Tools and came up with a tutorial, but for a few days we had some unhappy content producers.

It's been eight months now and we have sorted most of the gremlins from the studios. The only ongoing issues we have are related to problematic KVMs and buggy call-screening software that randomly drops data. Most of the technical teams have returned to their former responsibilities, feeling withdrawal from an exciting construction project.

I have said to more than a few people how much I would like to start a new project applying all the lessons I have learned so I could avoid the pitfalls. The general contractor superintendent summed it up best by saying, "There would just be a whole new set of problems you didn't count on."

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'We Are Defined By What We Offer You'

Radio One Aims to Be Multi-Platform Choice of Black/Urban America

BY JAMES CARELESS

For 30 years Radio One has prided itself on serving black and urban Americans. Today, the company has 53 stations in 16 U.S. markets and bills itself as being "the largest radio broadcasting company that primarily targets African-American and urban listeners."

But radio is just the beginning. The footprint of its family of brands — local radio, syndicated radio shows, digital assets and TV — makes its content available to 82 percent of the U.S. African-American audience.

"We take a true multi-platform approach to reaching our people whichever way we can," says Dan Shelley, the radio division's GM of digital. "These days, having a multi-platform approach is just the cost of doing business — and we are definitely here to do business."

Radio One's properties include Interactive One, creator of interactive online communities for black/urban Americans; and it has stakes in TV One, a cable/satellite TV channel, and Reach Media. The latter is built upon the "Tom Joyner Morning Show," which is in approximately 105 U.S. markets, and featuring the popular



Dan Shelley

website blackamericaweb.com.

The company has launched sophisticated websites in support of its radio properties, and is rolling out iPhone, Blackberry and Android apps so that listeners can stream its content to their mobile devices.

"Even though we only

have 15 apps on the iPhone and Blackberry platforms available so far, we

have seen tens of thousands of downloads for our mobile player," Shelley says. "Even before we started promoting these apps, 23,000 had been downloaded by listeners who had discovered them online."

As far as Dan Shelley is concerned, the Web is a natural extension of any station.

"At Radio One, we pride ourselves on interviewing every major black artist who comes into our markets.

And when they are here, we conduct separate video interviews with them as well. Those videos draw in more people, and give our radio DJs something more to talk about on air. The result is that the two feed each other."

Interactivity is at the heart of its multi-platform strategy, not just via exclusive online content but interactive sites such as Interactive One's BlackPlanet.com.

"BlackPlanet is the world's oldest social network," says Shelley. "It's a place where black men and women can interact in cyberspace, and where we can reinforce the utility of our brands to them."

According to Radio One's research, BlackPlanet.com attracts adults 18-34, with a 45 percent male/55 percent female mix. Other Interactive One sites include TheUrbanDaily.com (entertainment news), NewsOne.com (news), HelloBeautiful.com (lifestyle; targeted at Africa-American women), GiantLife.com (music and lifestyle) and Eve18.com (health, gospel music and inspiration).

The company might be more aptly named Multi-Platform One. But beyond this diversity is a noteworthy integration: The platform divisions work with one other, to derive the most benefit from content and distribution.

"In fact, Radio One's Digital Division is housed at the Interactive One headquarters," Shelley says. "This allows us to work together



The site mypraiseatl.com, right, is from Radio One station WPZE(FM) in Atlanta, while hellobeautiful.com is Interactive One's website for black women.

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very closely, and to provide cross-platform consistency and performance."

Radio One's success in the multi-platform arena offers some lessons:

First, such a strategy must have buy-in all the way up. At Radio One, Cathy Hughes, the chairperson, founder and secretary, and Alfred C. Liggins III, CEO, president and treasurer, "are solidly behind our approach," Shelley says. "Having this level of support makes a big difference in making things happen."

Second, real money must be devoted to mobile and Web platforms. This is what has happened at Radio One, resulting in the Interactive One division that has so many viable Web properties.

Third, broadcasters must stop defining themselves in terms of technology distribution and focus instead on content. That's the approach that Radio One has taken, which is why it has such a solid stake in the Web and wireless.

Though the radio business has been bumpy and Radio One has seen its share of those troubles, the company's

(continued on page 32)

Small budget? Big deal.



Your budget keeps shrinking while your responsibilities grow. You're doing more with less. And you've realized some console companies think that because you're cost-conscious, you'll settle for scraps. They toss you a stripped-down, featureless, lightweight toy of a console and expect you to feel grateful just because it costs less. Like they're doing you a favor. Wall-wart power supplies? Really?

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World Radio History

Radio and Location-Based Social Media

Looking for Something Different? Games Represent a Potent Opportunity

BY JAMES CARELESS

The phrase "location-based social media" is quite a mouthful, but it is one that radio broadcasters should know and understand. The reason: By combining

NEW MEDIA

the allure of social networking, mobile phones and the fact that these users are always going somewhere (hence the location aspect), location-based social media are the Facebook generation's new form of real-time collaborative play — and a heady trend into which radio can tap.

Popular location-based gamemakers include Foursquare, Brightkite, SCVNGR and Gowalla. Facebook, Yelp and other networks have also added location-based features to their services over the past year.

GEO-AWARE APP

"These games can be as simple as checking in via geo-location-based mobile applications and broadcasting those activities via social networks, or as elaborate as location-based activities that share a consumer's level of activity in a specific place and giving them incentives for doing so," said Pierre Barbeau, CEO of mobile solutions company Moblico.

"By taking advantage of these types of social-mobile opportunities, radio broadcast outlets open up a new opportunity for themselves to attract and engage listeners and advertisers — and maintain them."

Most location-based social networks have a similar dynamic. Users sign up for an account and download an app to



Photo Courtesy: Foursquare Inc.

their smartphone. They then check in to venues as they go about their day, earning points and badges or pins for their activity. Some allow frequent visitors to become mayor or king of a venue; most of the time such titles are solely for the bragging rights, but some venues offer discounts or special deals to location-based social media users.

"Location-based marketing is not going away; in fact, it will become a standard part of retail's marketing mix very quickly," adds media analyst Scott Sands on his blog.

This said, Sands wonders why radio isn't capitalizing on games such as Foursquare, a location-based social media game where players earn "rewards" for exploring their cities and sharing their travels with friends.

"VH1 is on Foursquare. Bravo is on

Foursquare. So is The History Channel," Sands writes. "[But] I can't find a single radio station or band with a Foursquare presence."

Maybe not. But Alice Radio in San Francisco recently teamed up with Gowalla to raise money for Haiti.

CHECK IN

"When a Passport [Gowalla's term for its mobile app] holder used Gowalla to check-in at one of three selected locations, two Peet's coffee shops and a Barenaked Ladies concert during a specified time, Gowalla donated \$50 in that person's name to the American Red Cross for each check-in," said Gowalla Communications Manager Pia Arthur. "Two morning show hosts from Alice Radio appeared alongside Gowalla co-founder Josh Williams at the check-in destinations throughout the day."

SCVNGR offers a twist on the above two scenarios, by working old-style scavenger hunts into the mix. "SCVNGR is a game about going places, doing challenges and earning points," said Seth Priebatsch, chief ninja and CEO at SCVNGR.

"Challenges are quick, fun activities that people can do at the places they visit to earn points and unlock real-world rewards; checking-in is just one of many challenges a user/player does at the location. Businesses and individuals can script custom challenges on SCVNGR at their locations to engage customers with product, boost sales, and create a powerful brand connection by harnessing the power of fun and leveraging game dynamics."

To date, no radio stations have tapped into SCVNGR for location-based social

gaming. But Priebatsch can cite lots of reasons why they should. "Broadcasters can use SCVNGR to expand their connection with listeners beyond the point when they shut off their radio," he said.

"By building challenges at locations of sponsors, brand partners or featured content (think: a stadium for a sports radio program), listeners will be able to connect with on-air personalities or station themes when they visit these places in their everyday routines. Offering rewards at these locations — a free hot dog at the ballpark for 20 points — will offer further incentive for engagement, and boosts 'talkability' for on-air reads."

OPPORTUNITIES

Gowalla's Arthur also sees location-based marketing opportunities for broadcasters who join forces with her company.

"There are currently several things radio stations can do to become active on Gowalla," she said. "Radio stations can create trips for certain events, and they can do giveaways for check-ins to their events and concerts. Through comments, stations can also receive feedback from listeners about events they are hosting."

For radio stations looking to do something different — and to capture the attention of the social media savvy Facebook generation — these games represent a potent opportunity begging to be taken.

"[The goal is] to give listeners a great experience while sponsors and broadcasters benefit from more personalized engagement with the audiences they want to reach," said Moblico's Barbeau. By linking radio to location-based social media games, "we turn radio into a '3D experience' that expands reach for everyone. In the end, this drives revenues to new levels."

SHELLEY

(continued from page 30)

online revenue has been a bright spot. Liggins said in the company's latest financial statement, "Our Internet business continues to grow, with revenues up 24 percent this quarter compared to the third quarter of 2009, and we continue to believe that our online platform will be a major source of revenue and EBITDA growth for the future."

When some other form of technology arrives, you can expect the Radio One brand to migrate there too. "We are defined by what we offer you," Shelley says; "not by how we get it to you."

This is one in a series about how radio station managers are putting new media tools to use.

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Seven Keys to Profitable Car Remotes

Automotive should be one of your most lucrative categories for station revenue. With a sour economy and full lots, it may be time to consider the good old-fashioned car remote.

Before you balk, consider off-hours and a unique plan outlined below.

NOPE

"It's not going to work," I say to the account executive. "Nobody is stopping at a car dealership remote on a Sunday night! People have to get up in the morning. Who shops for a car after 7 p.m., when most dealerships are closed?"

I thought that rhetorical question would put an end to the discussion but the sales rep remains adamant, explaining that if we don't play ball, we'll lose the remote fee — about a grand — plus we'll miss a \$10,000 spot buy that goes with the deal.

End of argument.

As I pull into the dealership Sunday night, it starts to rain — and what little hope I had of trying to get a few people to come vanishes.

During the first break, I do my best to pretend I'm having a great time as I rattle off reasons for people to come visit: free food, prizes and unbelievably low prices on cars.

The next thing I know, there are five listeners walking in, saying hello. Then 10 ... then 12 ... and I can't quite believe it, but everyone seems to be having a good time.

More people come. By the end, the dealership has sold two new cars and a

used one.

I mulled it over many times and came to a few conclusions that helped me succeed in similar circumstances. Perhaps you'll be as lucky if you put these items on your remote check-list:

✓ **Free Food!**

Reasonable quality is as important as quantity. Fresh subs cut into sandwiches; hot slices of pizza; hot dogs with ketchup, mustard and pickles; and lots of soda.

Keep the food warm, the drinks cold, and do not run out of anything.

Smart account execs can trade this out for on-air mentions; but if they can't, the dealership should purchase the food.

It never ceases to amaze me just how obligated customers will feel to listen to a sales pitch if you simply feed them. Eating also means they can't run in, grab a prize and exit quickly.

✓ **Attention-Getting Prizes!**

On my special night, I had a pair of NFL tickets to give away. I milked that for two hours, drawing the winner at the end.



Sure, I had a few T-shirts, CDs and lots of key chains; but it was the tickets people wanted.

Another prize that works consistently is lottery tickets with a huge payout. There's something special about mentioning large sums of money, even when nobody wins.

State lotteries are almost always willing to give you tickets for the promos; if they won't, you can score them for just a few bucks.

✓ **Private Invitations!**

I discovered that the dealership had sent private invitations to the remote from their list. They hyped the NFL ticket giveaway, the free food and pricing that was good only for that evening.

✓ **A Sales Staff That Knows the Game!**

I could tell by watching the auto sales staff that the manager had prepared them for the type of traffic he knew would be walking in the door. They didn't pounce on people. They warmed each person up before steering the conversation to cars.

PROMO POWER



Mark Lapidus

✓ **Short On-Air Breaks!** Because frequency with radio works, it's better for you to do short breaks with lots of music during your time there. If you are also able to make the stop-sets shorter during a remote, do it. Each live break should at least take the place of a unit.

✓ **Park Something Visible Outside!**

Make certain your station truck is parked, lit and visible from the road. If you don't have a truck, have some sort of signage created.

Listeners may feel uneasy about pulling in unless they can find you easily.

✓ **Go Social!**

Consider how Facebook and Twitter may be used at least to advertise the prize incentive you're using as a hook at the remote.

While you won't necessarily sell cars at every event, it's important that dealership owners realize remotes help build their brand and can move product for them over the following few weeks.

So let's hear it for radio: it's been selling cars for more than 70 years and remains the strongest local advertising medium available to steer people into dealerships.

Mark Lapidus is president of Lapidus Media. Reach him at marklapidus@verizon.net

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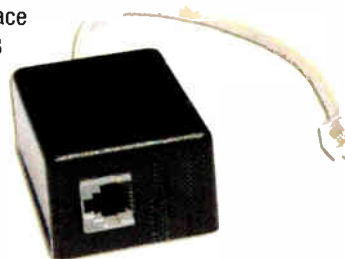
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Looking for a broadcast excerpt of a San Francisco Giant's taped off of KSFO radio from 1959, interviews with Willie Mays, Dusty Rhodes & some play by play excerpts, also features a homerun by Willie Mays and Felipe Alou stealing second base, running time is 18:02, also looking for SF

Giants games and/or highlights from 1958-1978 also taped off KSFO Radio. Ron, 925-284-5428 or ronwtamm@yahoo.com.

Looking for KFRC signoff radio broadcast from 1930 Andy Potter, running time is 0:22 & also the KLX kitchen the program guest is Susanne Caygill, a discussion of women's affairs with a long promotion for Caygill's appearance at a local store. Anne Truax, Susanne Caygill, running time is 13:44 Ron, 925-284-5428 or email ronwtamm@yahoo.com.

Looking for KTIM FM radio shows from 1981-1984 if possible unscoped. R Tamm, 925-284-5428 or ronwtamm@yahoo.com.

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NCE FM Stations Have Options

Looking to Upgrade? Here Are Some Possible Solutions

COMMENTARY

BY LAURA M. MIZRAHI

For the foreseeable future, there will not be a filing window for new full-service NCE FM facilities in the reserved band.

The FCC does periodically open filing opportunities for new NCE and commercial FM stations in the non-reserved portion of the band. But if you manage a reserved-band station, you also should be aware of possible ways to improve or upgrade your existing facility.

The first and most recent is that with the DTV transition, TV Channel 6 protection requirements that have hamstrung many full-service NCE stations are no longer an issue for a number of these facilities. A previously non-viable power increase or site change now may be possible.

An example of such an upgrade is a recent CP granted to KCSS, Turlock, Calif., based on engineering undertaken by our company, Communications Technologies Inc., increasing the ERP of the station from the prior 400 watt vertical only to 6,000 watt circular polarization. This modification resulted

in an increase of nearly 150 percent of population within the station's protected 60 dBu coverage contour.

Other than a power increase or site change on the existing frequency, an adjacent (minor) channel change can also be explored for possible additional improvement potential.



MUTUAL, UNILATERAL BENEFITS

Additionally, there still are a number of grandfathered Class A, 3 kW facilities in the commercial band (regulated under Section 73.213 of the FCC rules) that may be able to take advantage of a mutual upgrade with another involved 73.213 station if such a mutual upgrade can be determined to be "in the public interest."

In the absence of an agreement between these grandfathered Class A facilities, it is still possible to effectuate a site change that may be beneficial to one station if the proposed unilateral station modification remains the equivalent of a Class A, 3 kW facility in the direction of the other involved grandfathered station.

These allocation studies typically are fairly complicated, involving a number of variables; but if engineered carefully, they can afford such stations an upgrade that is worthwhile from both

FCC theoretical and real-world coverage standpoints.

Other existing upgrade possibilities include a review of your station's prior and current allocation picture, which can include an in-depth frequency study of the station's minor change channels (i.e., three channels above and below the station's current channel as well as the two intermediary frequencies).

From this study, a determination can be made of the maximum ERP possible on any given frequency from the existing transmitter site. Should the allocation study show that an upgrade on the current frequency and/or at the existing site location is not feasible, possible alternatives can be studied.

If your station can afford it, consider allowing the consultant to perform a study that may permit moving a limiting co- or adjacent-channel facility to an alternate frequency. If effectuated, this change may allow the station to upgrade at its licensed site location.

Finally, a transmitter site change for your station could significantly enhance coverage potential if the allocation situation is improved at the new location and the site is well chosen.

Additionally, the commission has granted waiver requests in specific circumstances involving second and third adjacent-channel overlap of existing facilities where grant of the waiver

would "increase the flexibility available to noncommercial stations to make significant improvements in service."

The commission believes that under certain allocation scenarios, it may be acceptable to permit some small amount of prohibited overlap to or from an adjacent-channel station, where potential service gains warrant this consideration. While the outcome of this avenue is not assured, this may be worth exploring if there are no alternative upgrade options available.

Finally, the commission adopted a modification in its technical rules in December 2000, changing the interfering contour for second adjacent-channel relationships from the prior 80 dBu to the less restrictive 100 dBu interfering contour for full-service noncommercial facilities.

In addition to providing a common interference prediction standard between the commercial and noncommercial FM services, the adoption of this less-preclusive standard created opportunities for NCE FM (and FM translator) stations to potentially increase power and coverage as well as provide them with greater site selection flexibility. Should your station fall into this category, this could be a cost-effective way to enhance the station's coverage area.

Laura Mizrahi of Communications Technologies Inc. has been involved in broadcast consulting engineering for more than 20 years. Questions of a broadcast technical nature can be sent to lmizrahi@commtechrf.com.

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Radio World Talkback

Comments shown were posted by readers to stories that appear at radioworld.com.

"I doubt multipath due to reflections off the tower should be a major worry. If the distance from existing facility is 1/4 mile, then in the 'worst' direction for the new multipath, the path length difference is 1/2 mile, which is 2.6 microseconds of delay. Not enough to cause much, if any, noticeable distortion? If the reflections were significantly strong and direct signal blocked, you could expect an increase of picket-fencing in a few small areas. But again, with the two towers being so close together, blocking of direct signal where reflections remain strong should affect relatively few locations?"

— on "'15 Penn Plaza' Skyscraper Could Affect FM Signals."
See www.rwonline.com/article/107530

"Of course they could always put an antenna on this tower too. I don't think blocking a radio station for a few square blocks should halt a new tower especially in this day and age of satellite radio and iPods etc."

"I'll be first to request at least that as an auxiliary backup to [the Empire State Building], and if it turns out to work better, swap ESB with the new building as the prime antenna location. A building that tall would be foolish not to rent out the roof to several broadcasters."

Building renderings by Pelli Clarke Pelli Architects



(Stockphoto/Andrew Johnson)

"Paul hits the target. This article was used to convince more involvement by a station in this region. The CE used it to great sales advantage."

— on "Your Station Can Be the Hero," regarding station involvement in EAS.
See www.rwonline.com/article/108308

"We could start a broadcasters' club of disaffection. We could spread the word by EAS and HD1 and then no one would know about it."

"The FM modulators in the XM & Sirius hardware [are] garbage now — way underpowered — and they weren't hurting anybody with their old FM modulators. ... Now the FM modulators are so anemic you actually have to put a wire clip on your car antenna — if you still have a metal rod antenna that you can get to. What a scam."

— On "FCC Stands by Sirius-XM Merger."
See www.rwonline.com/article/108116

"As a car listener to FM HD Radio, any time it fades back to analog, it makes me wonder how analog has survived this long. Analog is fine when I'm at home plugged into my rooftop antenna, but I really I just don't do that anymore. My one-hour commute is the only time I listen to local radio, and I think the pros of digital outweigh the negatives. That's just my opinion as an everyday non-technical Joe who likes to see local radio survive."

— on "Elevated HD Power, Part II," a white paper by Dave Hershberger of Continental Electronics in *Radio World Engineering Extra*.
See www.rwonline.com/article/108074

"What a sad, sad shame. This would be analogous to KDKA signing off in the States. What a sad and needless loss."

— on "Fall of a Titan: 89-3/4 Years of CFCF."
See www.rwonline.com/article/108628



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READER'S FORUM

IT'S APPEASEMENT

I couldn't disagree with Paul McLane more on this entire issue of performance royalties ("In Defense of the NAB Terms Sheet," Nov. 17).

I also was amused by Dennis Wharton's response that history will show the NAB's wisdom on this issue ("Michigan Owner Says No Thanks to NAB," RW Online).

The musicFirst coalition claims that artists don't need radio anymore and Paul McLane opines that "radio's bill has come due." If that's true, someone should put in a call to the Dixie Chicks, and ask them if they'd like to back up to just before radio stopped playing their songs! It would also be interesting to see which other artists would volunteer to have their music expunged from radio. If there are no other volunteers, perhaps radio should select one to re-test "the Dixie Chick effect."

This offer to pay musicFirst by the NAB board was made without consulting the membership and positively smells to high heaven of being a backroom deal. It was laid out under cover of darkness, to be finished off after the election. There wasn't enough political will to even bring a bill to the floor of either the House or the Senate last session, but broadcasters need to be alert because that could change suddenly.

Paul McLane suggests the NAB's offer was the better part of valor for the industry, but I believe most members of Congress are savvy enough to realize they don't want to face the next election in their home state or district after redistributing radio's revenues to the record companies.

NAB must also be frustrated that as soon as they offered to settle, musicFirst refused, called the NAB's bet and raised them immediately. The NAB Radio Board now finds itself stranded on an island: no deal with musicFirst, and no tenable route of retreat.

The "deal" musicFirst seeks is total surrender; and the NAB's offer has given them all they need to hang tough and take as big a bite out of radio's revenues as they wish.

With all due respect to the board, we simply can't afford it; and Congress needs to know the NAB's offer doesn't represent the vast majority of radio broadcasters. Mr. Wharton says no one else is quitting the NAB, but I don't believe it.

It's time for the real radio broadcasters to step up and make ourselves heard. It's obvious to me the NAB board vision for the future is to appease — and history has shown that doesn't tend to work out well. Perhaps a refresher course is in order for NAB leadership. I recommend they check the library under Neville Chamberlain.

Charlie Ferguson
Northern Broadcast Inc
General Manager
Kalkaska, Mich

FOR THE LOVE OF RADIO

I don't know who enjoyed Big Jim Williams' article ("We Stayed While the Door Revolved," Sept. 8) more, my husband or myself.

We laughed and compared the small-town radio stations we owned and operated during the 1950s through 1993. We both have great stories to add to his about our employees throughout the years.

We owned and operated an AM and a FM, and experienced

some of the same problems while trying to keep our sanity and work from early to late. My husband opened the station every day at 5 a.m., I was the news person and we both sold advertising.

I know every profession has their dogs; but radio seems to attract more of them. Thanks for sharing and bringing back some good memories for us.

Erma and Preston Bridges
Benton, Ark.

THE MAJOR ... AND COMPANY

Gary Frost's book, which James O'Neal reviewed ("Armstrong Wasn't the Only One," Sept. 8), is indeed a fresh look at what most of us have considered old and established FM history.

Mr. Frost has certainly proved that Major Armstrong had inside knowledge of RCA's privileged engineering information, which may very well have influenced the Major's work in the final development of wideband FM.

There are many other interesting historical facts detailed in this book. I must admit that I was more than a little shaken when I read it.

Now I can better understand why Jeanne Hammond, the Major's niece, told me that he had wanted to write his own life story, just to clear up all of the many misconceptions concerning his legacy.

It's not that he was trying to change history's record; it's just that others, including Lawrence Lessing, author of the Major's biography "Man of High Fidelity," were not getting things right. (As RW has noted elsewhere, Lawrence Lessing's name in the article was wrongly referenced as Lansing Lamont.)

The Major himself was always quoted as saying, "It isn't ignorance that causes the trouble in this world; it is the things that folks know that ain't so."

I'm an Armstrong historian; I'm also one of the curators at the Armstrong museum in Alpine, N.J., where the Major built the world's first FM broadcast station.

Any truthful information concerning the Major's involvement with the development of wideband FM should be known and explained. I feel that Gary Frost's book does exactly that. I would recommend its reading to anyone interested in the history of FM broadcasting.

Steve Hemphill
Owner
Solid Electronics Laboratories
Lehighton, Pa.

Advertisement for 'Armstrong Wasn't the Only One' book by Gary Frost. Includes a schematic diagram of a transmitter and promotional text for Kintronic Labs.

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HOW'Z ABOUT **FIVE** EXCEPTIONAL REASONS?

AirAura Distortion-Managed Final Clipper

The other guys have been trying to crack this one for years and they still aren't even close. You've never heard anything like our Final Clipper before. Wait! Yes you have! On your original program material - complete with its full dynamic range! With AirAura, we've created a final clipper that other processors can only dream about. Perfect loudness with perfect fidelity. We are pretty sure it doesn't get any better than that. Why do we do it? Because we can!

Your Audio **PERFORMS** Like This



But **SOUNDS** Like This



AirAura 31-Band Fine Grain Processing

The Beatles, The Rolling Stones, The Who, The Beach Boys, Jimi Hendrix, Metallica, Pearl Jam, Nirvana, Bruce Springsteen & The E-Street Band, Led Zeppelin, Van Halen, Queen, The Eagles, U2, Rush, Genesis, Steely Dan, The Allman Brothers, ZZ Top, Cream, Dire Straits, The Grateful Dead, Red Hot Chili Peppers, Talking Heads, The Clash, Tool, Korn, Alice In Chains, Little Feat, Spinal Tap, R.E.M. That's 31 bands who will sound better on the air with our 31-Band Fine Grain Processing. But the truth is EVERY band will sound better. And solo acts, too. AirAura's final limiters perform precision spectral energy control without generating the artifacts you're used to trying to squash with your old processors. Bottom line, your music sounds like music rather than a bad cell phone call (YOU know what we're talking about...)



AirAura Sweet-Spot Technology

When you think about the 'sweet-spot' you need to think about this: Every song or album (yes, a CD IS an album) is mastered differently. Record companies are having their own loudness wars. Of course, this can play havoc with your on-air processor, which essentially is 'mastering' the signal you broadcast. Sweet Spot Technology (SST) has been uniquely designed by Vorsis to manage the behavior of the multi-band AGC as program content density changes, something a typical broadband AGC simply cannot do. It effortlessly handles transitions between the hyper-compressed recordings of today and those of the past that have considerably more dynamic range. SST achieves uncannily natural-sounding consistency in both on-air loudness and spectral balance regardless of density variations in the incoming source material.



Vorsis Bass Management System - v2.0

Want to make a good, impactful impression? Nothing does that better than perfectly tight bass that isn't walking all over your music. Or should we say swishing through. From the sound of things, the other guys got bass (rhymes with ace) confused with bass (rhymes with donkey). We take care of that - VBMS enhances bass impact without affecting the clarity of mid and high frequency program. In fact, bass detail and the clarity of higher frequency audio are actually enhanced by this powerful, innovative algorithm. With VBMS operating in conjunction with our 'Fine Grain' limiters, on-air bass has never sounded so good and so natural.



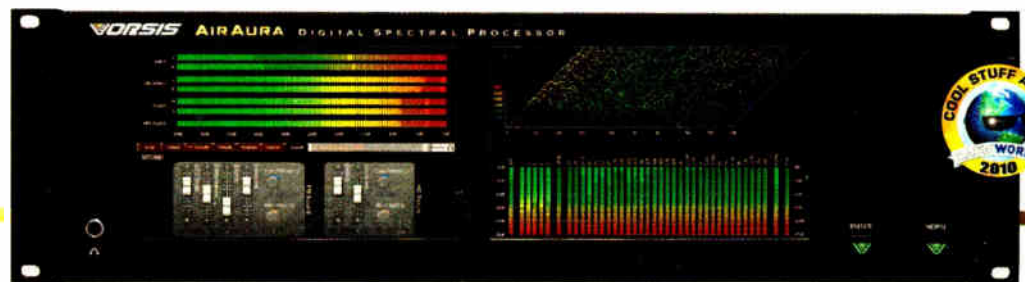
Vorsis Smart Stereo Enhancement

Sure your email box is overflowing with offers of enhancement. But how many are offering Smart Stereo Enhancement? Hmm? With THIS kind of enhancement, your music sounds more natural than ever. It provides a smooth, natural, wide listening experience without triggering multipath effects, delivering an extremely stable 'on-air' stereo image that's exciting to listen to. This, alone, is responsible for a lot of people going back to their drawing boards.



AIRAURA SUPER DIGITAL AUDIO SPECTRAL PROCESSOR

The BEST reason to switch processors is to make YOUR station stand out by sounding better than the competition. The Vorsis AirAura lets you do exactly that, in exactly the way you want. Don't take our word for it... try it risk-free and see. No pressure from us. It's your ears that'll have you running for your wallet. And then your sponsors running for theirs...



W H E A T S T O N E
VORSIS

IT'S TIME YOU WON THE RATINGS WAR.™

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World Radio History