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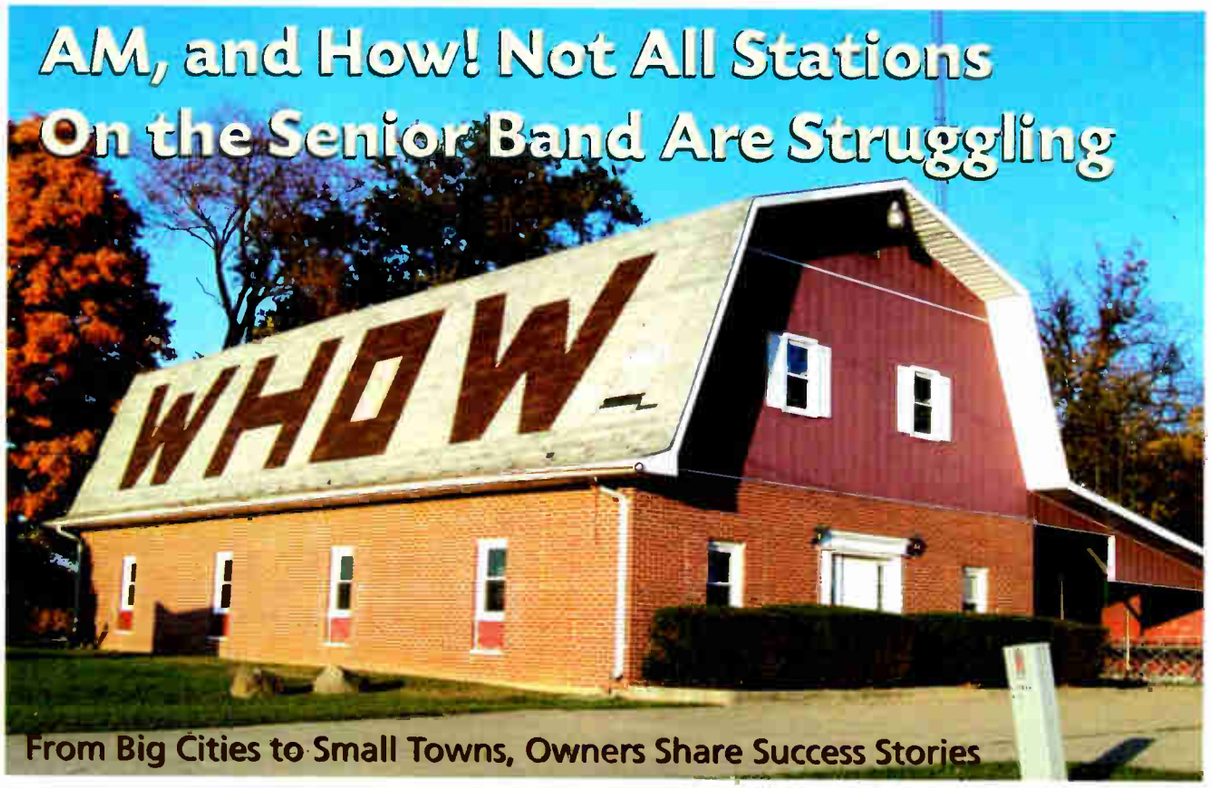
AM, and How! Not All Stations On the Senior Band Are Struggling



From Big Cities to Small Towns, Owners Share Success Stories

BY RANDY J. STINE

WHOW in Illinois broadcasts from a barn. Its tower is visible rear right.

This is one in a series of articles about AM radio, its challenges and successes. The first, "Is AM Radio Still Relevant?," appeared in the Sept. 1 issue.

Not all AM radio stations are struggling.

Indeed, Arbitron data from the largest markets in the United States show that some AMs are very highly rated. Revenue data from BIA/Kelsey, a financial and strategic advisory service, suggest that some are very profitable, too.

The same can be said for many small- and medium-market AMs, whether the content is local high school sports and agricultural news, music or strong local talent that bring in ad dollars.

Certainly, this is not the first time some radio broadcast observers have spoken of AM radio's demise. FM's success in the 1970s changed the radio business landscape, but AM survived. Satellite radio, MP3 players and Internet radio are just the latest technologies trying to topple AM, defenders say.

Without exception, successful AM broadcasters interviewed for this story say they focus on localism and connecting with their communities. Voice-tracking is limited, with local programming favored over syndicated national shows.

An examination of Arbitron ratings in the 10 largest radio markets in this

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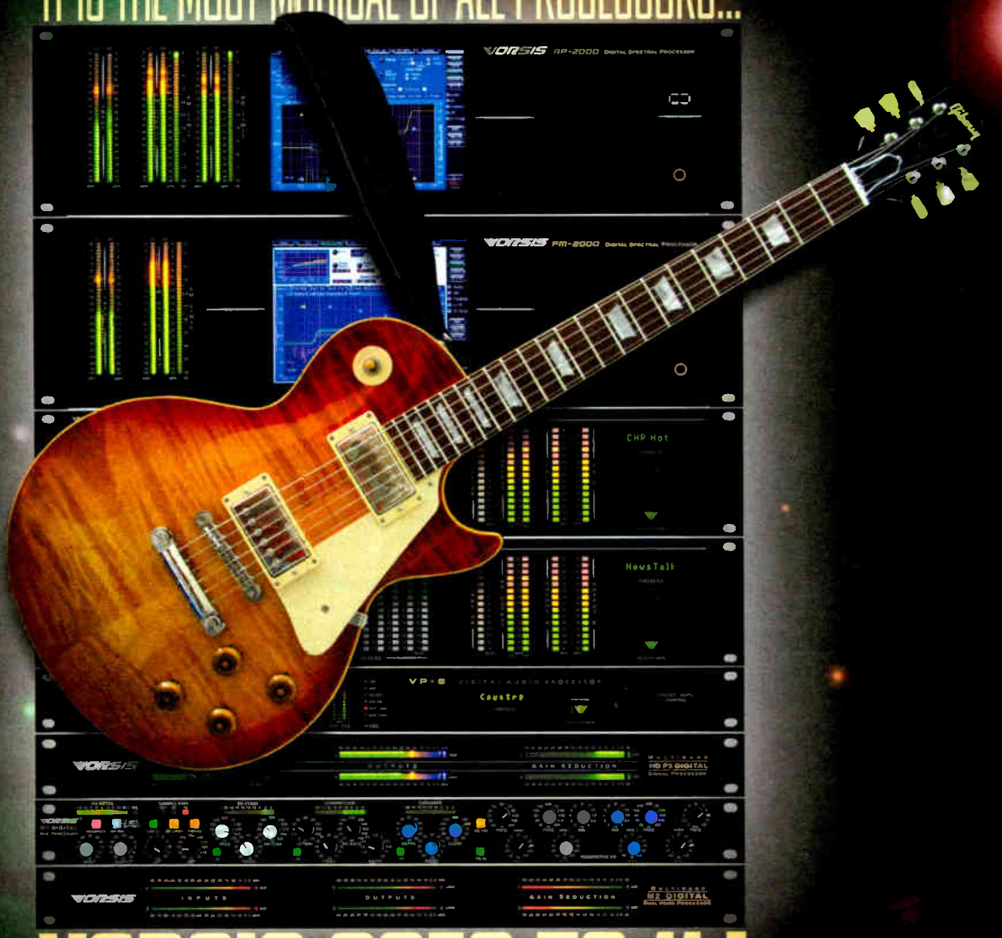

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NPR Labs Now Part of Tech Center

Researchers Align With PRSS; Network Plans Broader Marketing

BY LESLIE STIMSON

WASHINGTON — Think of it as a modern-day CBS Labs.

A new Technology Research Center at NPR is intended to expand the organization's research, consulting and testing for public radio organizations and to market those services more broadly to commercial customers.

Mike Starling, the vice president, chief technology officer and executive director of NPR Labs, will head the TRC, which operates under the auspices of the Public Radio Satellite System, part of NPR's Distribution Division.

NPR says the center combines "the satellite transmission expertise of the PRSS with the technical innovation of NPR Labs." In the past, NPR Labs has focused its efforts on NPR and member stations; now the Technology Research Center will be able to expand that effort to serve the entire PRSS. Those involved say the change also gives NPR Labs access to more resources and enables it to broaden the scope of its work.

Starling also said the center gives the broadcast industry more "research and development bandwidth."

A prominent radio engineering executive praised the move, describing NPR Labs as radio's only independent resource for testing, akin to the Advanced Television Test Center.

AFFINITY

"It's a great resource. It makes sense to take advantage of its capabilities," said Greater Media Vice President of Engineering for Radio Milford Smith, who also chairs the standards-setting National Radio Systems Committee.

NPR Labs will retain its name but becomes a self-sustaining unit within the new center. Details were still being worked out in October.

Given the economic climate, talks began months ago about how to increase efficiencies within NPR. There seemed to be an affinity between NPR Labs and Distribution, said Pete Loewenstein, vice president of the latter. He said both were focused on broadcast infrastructure and technology, so it made sense to align them more closely.

NPR Labs had operated as a kind of island; its personnel worked with PRSS occasionally but were not part of that division, according to Starling.

Loewenstein said managers are thinking of TRC as a new function within the Distribution division, which will be able to provide NPR Labs some back office support "for things they've had to do themselves" and giving its personnel more time to focus on technology research.

The Technology Resource Center, located at NPR's Washington headquarters, will build upon the work of NPR Labs, which has conducted several studies on radio technologies — including multicasting and accessible features — for the advancement of broadcast radio technology since its inception in 2005.

"NPR Labs will become a self-sustaining unit that will continue to provide system representation and technical expertise on regulatory and legislative issues important to the station and public radio system," the organization stated in its announcement.

"It will also focus on grant-funded work and expand its scope to include fee-based consulting services to public radio stations, industry partners and commercial clients. The TRC will serve clients by offering fee-based consulting services, including projects that address advanced broadcast coverage, listener assessment and developmental broadcast technology."

Revenues will be used to support distribution of content to public radio stations. One official estimated that NPR Labs is "nearly" self-sustaining at present, with revenues of about $1 million a year, within NPR's annual operating budget of about $145 million.

NPR Labs has already dipped its toe into commercial work. Starling said it completed a project for the Broadcast Traffic Consortium, of which NPR is a member along with several commercial radio groups. It conducted granular bit-rate testing of the HDC coder to confirm

(continued on page 5)

Photo by Leslie Stimson

Mike Starling, Ellyn Sheffield and John Kean discuss preliminary results of FM IBOC elevated power testing with attendees of the Association of Public Radio Engineers meeting before the NAB Radio Show in Philadelphia.

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World Radio History

AM: Talk About the Passion

For Many Readers, the Health of AM Isn't Just an Abstract Concept

FROM THE EDITOR

Paul McLane

In this issue Radio World continues our autumn theme of exploring AM radio, with Randy Stine's story on page 1. (We're using the term AM here to mean "the state and health of businesses on the AM band in the United States," rather than discussion of amplitude modulation itself.)

Few articles with which I've been involved have produced the kind of howling I heard from readers in response to Randy's piece "Is AM Radio Still Relevant?" in our Sept. 1 issue. I'd hoped to comment earlier but have had other business to attend to in recent columns.

One GM described that story as an editorial "raping" of the AM band, especially of stations in small and medium-sized markets. Among other things, he said RW implied that only AM operators have had trouble getting financing.

A dear friend of mine called the article "the stupidest I've seen in years" and wondered half-jokingly if someone had broken into our corporate offices and snuck the piece into print when I wasn't looking. "Whoever this guy is, call security. Keep him away from your computers."

He continued: "The FCC hasn't given up on AM. They still want regulatory fees from AM stations every year." My friend also points out that there are numerous ads in Radio World for AM-related products.

You saw more reader reactions in our special followup in the Oct. 7 issue, in which I provided space for five broadcast professionals to tell us their views about the strengths or failings of AM.

As an editor I certainly appreciate when a story sparks a strong reaction. However I get no joy if a reader thinks we've run an article simply to be provocative, that we're editorializing subversively in our news pages or that we're being sloppy.

We do not have a "new editorial policy attacking the mere existence of AM radio in any form," as one reader told me. I care about AM very much; indeed the article was intended not to criticize AM but to summarize reasons for the concern that is evident among both regulators and broadcasters. (And most of my own air work has been on AM, so I feel personally connected to it.)

ATTACK OR REPORT?

I conceived this series as a way to explore both the challenges and successes of AM, which have gotten less attention than they deserve.

It's fair to say that, taken on its own, that first article was unbalanced. Readers didn't get to see comments from believers who might point to AM's technical stability, receiver base, notable format successes, ability to cover distances, deep history and strong roots in many parts of the country.

Those are characteristics we should not ignore when judging the health of AMs. And I was pleased to find that so many readers have faith in its outlook.

However, I am troubled that many of their e-mails, while criticizing how RW explored some hard questions, failed then to address them.

For instance, what does it mean to AM's long-term viability if new consumer electronic devices include FM only? What does it mean that AM's role as an entertainment source for young consumers has become "almost non-existent," in the FCC's words? What does it mean that the market for AM station transactions has dwindled so much? What does it mean that prominent broadcasters and industry professionals like those we quoted are so gloomy about AM's outlook?

Radio World fabricated none of those issues or comments. While we can and should also acknowledge the successes that AMs enjoy, I hope businesses built on the AM platform are thinking about these questions for their longer-term viability. I'd like to hear their answers.

I remain committed not only to reporting on the world of radio but sharing your reactions to our work, even when you are critical. It's one of the strengths of Radio World. So write to me about this or any article at *pmclane@nbmedia.com*.

It's sobering to remember that we're not talking about an abstract concept.

One of the most heartfelt reactions came from a veteran engineer and consultant, someone whose name you may know but who spoke to me in confidence.

He called to share his grief over reading our story. Imagine what it would be like, he said, to spend one's career helping to build the AM infrastructure, designing and building AM stations, pouring one's sweat and sometimes one's blood into constructing first-class AM facilities, going without sleep for 30 hours at a time to get stations on the air — then to find the very relevance of AM being questioned.

His phone call was a reminder of the many people whose dreams, exertions and tears have gone into creating what we know as AM radio. To them I say: Thank you for your work and your passion.

SUPPLIERS SUPPORT BOSTON ENGINEERS

Photo courtesy Jim Peck

Four times a year Broadcast Signal Lab coordinates a social lunch near Boston for the radio engineering community in the area.

"Professional fellowship, networking and hearty cuisine are the only planned agenda," says Rick Levy of BSL. "Bring your latest experiences, concerns, war stories, advice and data for informal discussion and sympathetic sharing."

Here's a snapshot from a recent event. Bill Gould of Moseley Associates, left, picked up the tab for most of the lunch cost; Jim Peck, right, regional manager for SCMS (and freelance RW photographer), donated a Sony HD Radio tuner as a door prize.

Michael Saffell, director of technology for New Hampshire Public Radio, walked away happy. No word on the name of the comely lass at upper right.

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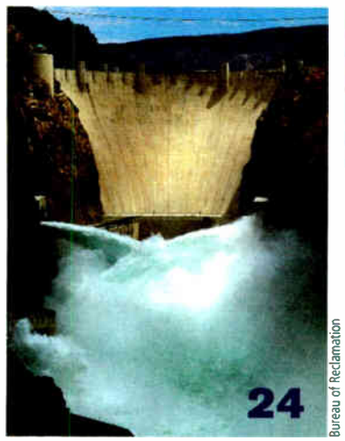

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NPR LABS

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that the IBOC datacasting stream had the capacity for stations to offer traffic information.

The work of NPR Labs has taken a high profile in the debate over whether the industry should raise digital FM IBOC power, with NPR raising cautions about possible interference while some commercial broadcasters questioned its methods and resources.

An interesting aspect of the broadening mission for the Labs will be how and whether commercial broadcasters will put the NPR research organization to work as a contractor.

MORE PROJECTS, RESOURCES

NPR Labs engineers and technologists join the new center. The lab has three full-time engineers and three project-based temporary employees, as well as audio consultant Dr. Ellyn Sheffield, a professor with Towson University.

NPR Distribution has 77 full-time employees including the lab personnel. There was no net job gain or loss with the change, though Starling said the lab might someday take on more people depending on the projects it takes on.

In the new arrangement, Starling reports to Pete Loewenstein, vice president of NPR Distribution, who in turn answers to Dennis Haarsager, senior vice president for System Resources and Technology.

Starling said the research center will enable his team to expand the type and number of projects and services it can offer.

He said NPR Labs becomes connected with a unit that will help it "deliver end-to-end technology," whereas before NPR Labs might have called upon PRSS on a short-term basis to back up a demo.

As an example of the sort of work that might be possible, Starling mentioned "a host of datacasting opportunities" in which Loewenstein's group has expertise. For instance NPR Labs helped Vermont Public Radio parse secure school closings that their stations wanted to put up on a PAD crawl on their IBOC stream. Starling says that project may have broader appeal and NPR Labs may now be able to support that kind of project on a larger scale.

PRSS gets benefits out of the move, too. Loewenstein said PRSS is now looking at what the system will need for its next generation of hardware and software in advance of the move of NPR headquarters. Regarding codec technology in particular, Loewenstein said, "There's expertise in the Labs group that we can tap into" as it looks into tech upgrades.

NEWSWATCH

NCE WINDOW OPENS: Sixty-seven noncom educational FM band allotments above 92.1 are available in a filing window opened by the Media Bureau of the Federal Communications Commission. The window will open Dec. 11 and close a week later. They include allotments as varied as a C3 for Bozeman, Mont., on 95.9; a Class B for Terre Haute, Ind., at 107.5; a C2 for Jackson, Wyo., at 106.7; and a Class A for Charlotte Amalie in the Virgin Islands at 93.1.

EAS PROTEST: Fifty state broadcast associations protested to the FCC about a proposed $5,000 fine against KWVE(FM), San Clemente, Calif., for an EAS mistake by a station staffer. They worry that such a high fine against a volunteer "Local Primary One" station will deter others from serving in that role.

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AM SUCCESS

(continued from page 1)

country showed that AMs were the top-rated stations for listeners age 6+ in three, Los Angeles, Chicago and San Francisco, and came in a close second in Atlanta and Boston.

Several large broadcast groups said AM remains profitable for them, even though AMs typically are more expensive to operate than FM broadcast stations.

"I'd encourage people to look across the country at the large number of successful and profitable AM radio stations people are listening to every day," said Rick Feinblatt, vice president of radio for Greater Media, which operates four AM and 19 FM stations.

"I think people tend to focus on only the ones that are not doing well."

Feinblatt points to the group's WBT(AM) in Charlotte, N.C., which is solid in the ratings and a profitable station.

"It's considered the voice of Charlotte, 88 years in format, 50,000 watts that can be heard from Canada to Cuba, and it is focused on localism."

Bruce Beasely, president and chief operating officer of the Beasely Broadcast Group, said, "Given the many successful news, talk and sports stations across the country and the benefits derived from HD broadcasts, we firmly believe that AM has its place on the dial."

Photos by Georgia-Carolina Radiocasting

The Toccoa Junior League All-Stars visit WNEG before they leave for the state tournament. Assistant Manager Todd Mayfield sits at center; the announcer is Connie Gaines, operations manager/morning show host. The studio can be viewed from the sidewalk and is across the street from a railroad depot, visible through window.

WNEG's Charlie Bauder and Buzz Tatham work the Stephens County High School Indian Tailgate Show in the fall of 2008.

AM IS MORPHING

His company, which operates 16 AM stations, continues to make prudent, return-focused investments in its AM stations, he said. "We believe those stations still represent an excellent complement to our FM operations."

WGN(AM) in Chicago is a ratings success and revenue juggernaut, according to Arbitron and BIA/Kelsey. The station, which has a 5.6 share for persons 6+ in the Arbitron PPM analysis released in August, is at the top of Chicago radio ratings by that standard. BIA Financial Network estimates WGN, a 50,000-watt AM, had revenues of $44.5 million from 2008.

"We all know AM is certainly not a growing medium, but it is morphing into a multimedia tool. AM is what it is. There are limitations to AM, but we deliver the best local content we can, with local expertise and local talent," said Tom Langmyer, vice president and general manager of WGN, which is owned by the Tribune Company.

Langmyer contends the future success of AM radio stations depends on reinvention of the product.

"It's great content on as many platforms as possible. Most great broadcasters realize that. It's podcasts, it's social media, the Internet. We use those tools to extend the WGN brand, which just happens to originate on the AM radio dial," Langmyer said.

WGN — which he said turned off its HD Radio earlier this year because of concerns it was causing interference — broadcasts the Chicago Cubs and Chicago Blackhawks, further identifying with this sports-crazy city, Langmyer said.

"We cume a million listeners. This is an AM market if there ever was one. There are a lot of great AM stations here and they drive a lot of people to the AM dial."

In fact, Chicago's top two radio stations, at least by one broad measure, are AMs. CBS Radio's WBBM is rated by Arbitron as the second most-listened-to 6+ radio station in the city.

However, good ratings do not always guarantee huge financial success, analysts say.

An indication of how the economy has affected the radio industry is seen in how revenues have fallen for some AM radio stations despite good ratings. The top-rated radio station in San Francisco, Citadel's KGO(AM), has seen revenue dip just over 21 percent since 2003. BIA/Kelsey estimates that KGO billed $29.4 million in 2008.

WSB(AM) in Atlanta, a solid second in overall 6+ PPM ratings in August and the top AM, had revenues of $17.5 million in 2008, down approximately 21 percent from 2003, according to BIA/Kelsey.

Small- and medium-market AM broadcasters, which work with significantly smaller financial numbers, face their own set of challenges, according to several small-market AM radio station owners.

But WNEG(AM) in Toccoa, Ga., with a population of 9,000, wins on nearly every front, from ratings to revenue to community acceptance, said Art Sutton Jr., president and chief executive officer of Georgia-Carolina Radiocasting, a group that owns 14 small-market stations in Georgia, South Carolina and North Carolina, including seven AM stations.

"Our cornerstone has to be local news. The newspaper here is weekly, so if people want news they listen to us. But it's more than that. We have a longtime legacy of being information-oriented," Sutton said. "The station has done local news since it signed on in 1956. I think the AMs that are successful have that kind of legacy and consistency."

SUPER-SERVING THE LOCAL MARKETS

The station, 500 watts daytime and 44 watts nighttime on 630 kHz, has $600,000 in annual sales and cash flows nearly half that, Sutton said.

Billing itself as The Voice of Northeast Georgia, WNEG plays some music and has a staff of six full-time and four part-time employees. The station is "part of the fabric" of the community, Sutton added.

"Our employees all serve the community in many different ways, from serving on local boards to running charitable events. They are very well respected in the community."

Sutton, who has owned the station since 2001, said consistent station ownership over the years is another key to his station's success.

Three Eagles Communications Inc., founded in 1994 by Rolland Johnson, owns 15 AM radio stations across Iowa, Minnesota, Nebraska and South Dakota.

"It's the breadbasket of the United States and we are doing very well with all of our AM stations," said Johnson. "We are local, live and relevant. We take very little syndicated product. Our focus is local news, sports, weather, agriculture, and every now and then we'll play a song."

KFOR(AM) in Lincoln, Neb., is the company's most successful station, Johnson said, but "all are profitable because we are totally in tune with our local markets.

"We are close to a 35 percent profit margin with our AM stations," Johnson said.

Three Eagles Communications, which purchased several underperforming AM stations from Clear Channel several years ago, believes in providing information to its communities of license when it is convenient to the public and not only when it is convenient to the broadcaster, Johnson said.

"We super-serve the local markets because it is good business. We know people will listen to us and respond to us, which means they'll advertise on us," Johnson said.

WHOW(AM) in Clinton, Ill., is in the middle of corn country, so it figures that the station broadcasts a format consisting largely of agricultural news.

"This was a station that was literally off the air in the fall of 2007 and now we are doing very well," said Randall Miller, president of WHOW.

The station, with a tradition of service to the farming community since 1947, lost its tower in an ice storm in 2006. The 5,000-watt daytimer rebuilt its 325-foot tower in early 2008 after Miller purchased the station and now features a local morning show and several regional ag radio programs.

WHOW, which broadcasts from "the big red barn" at 1520 kHz, is an independent and local radio station, a real slice of Americana, with a long history of serving the surrounding farming communities of central Illinois, Miller said.

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World Radio History

Stu Keeps His Eye on His Phasor

Why a Webcam Might Belong on Your Shelf of Diagnostic Tools

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

Stu Engelke is CE of New York City's WNYM, "AM 970 The Apple." The station has a Carl T. Jones phasor, controlled by a Kintronic phasor controller and indicator panel. Stu experienced an intermittent malfunction recently while the phasor was switching from Night to Day pattern. Stu used a USB webcam to troubleshoot the failure. Here's how it played out.

Every few days, the change from Night to Day pattern was not completing. Things would not switch properly. With all the contactors and relays, the problem could be anywhere. To make matter worse, each time Stu tried switching the system while he was at the site, everything worked perfectly.

Back at his office, Stu noticed a webcam that was not in use, sitting on a shelf. The idea hit him to record the status indicators of the Burk remote control and Kintronic phasor controller and indicator panel during the pattern change.

He set up the Web camera at the transmitter site. Mounting was simple; it just sat on the floor, aimed up at the rack so it could see the controller, the status panel and the Burk remote control.

A few days later, when the failure occurred, the results were not what Stu expected. He had set the PC to record from 2 minutes before the change to 10 minutes after. Here is what the camera recorded.

Fig. 1 shows the normal Night mode indicators, before the switch. Fig. 2 shows the status during the pattern change. In Fig. 3 we see what a successful switch to Day pattern looks like. But looking at Fig. 4, we see the contactor status indicators are all lit properly, but the status light to the remote control is not lit.

As it turns out, Stu thought he was going to see a contactor not switching. But this did not occur, as all the contactor indicators were green (seen on the bottom of the controller indicator panel). It turned out that a slave relay that Stu had installed to get the Day status to the Burk remote control was not activating. That relay has been replaced, and there have been no further problems.

The pattern had been switched properly, but the remote control did not know it, since the slave relay was not pulling in. Stu has the system programmed to switch back to Night, if there is an error, and that is exactly what the system did.

Stu writes that his next use for the camera is to find out who's taking his food out of the station refrigerator.

Stu Engelke can be reached at *sae@nycradio.com*.

We've had a lot to say about substituting LEDs for incandescent

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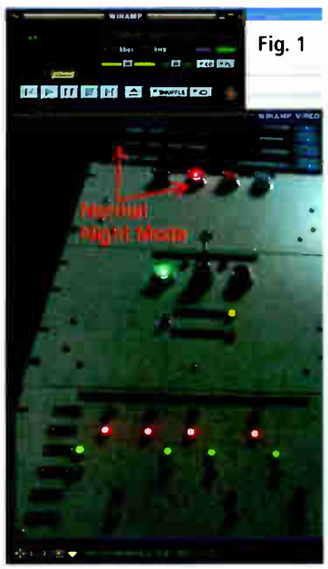

Fig. 1: A webcam is used to diagnose phasor switching. This image shows normal status before the switch to Day mode.

Fig. 2: Status indications during the switch to Day pattern.

Fig. 3: Indicators show a successful switch to Day pattern.

Fig. 4: The failed mode. Note there is no status indicator on the remote control.

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Four independent channels of intelligent audio gain control

Inovonics has packaged four channels of smooth-sounding audio leveling into a single rack space. The four channels may be used separately for microphone and phone-line leveling, or may be selectively linked for dual-stereo or split mono/stereo program audio control.

A unique combination of peak and average response to program dynamics combines the gain-riding utility of a gated AGC with the tight peak control of a fast limiter. This particular combination of long- and short-term level correction yields consistent subjective loudness without resorting to excessive dynamics compression that can lead to listener fatigue.

Operation of the 264 is entirely program controlled, and user adjustments have been restricted to a bare minimum for quick, set-and-forget installation. Operating entirely within the analog domain, the 264 utilizes colorless Class-D (PWM) technology for stable and transparent operation.

The 264 also provides alarm tally outputs to signal a 'dead air' or out-of-limits condition for each of the four channels.

Model 264

For full technical details, visit

www.inovon.com

Inovonics
1305 Fair Ave. • Santa Cruz, CA 95060
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www.inovon.com • e-mail: info@inovon.com

World Radio History

"Go ahead caller… you're on the air."

Note to people planning studios:

Have you read the new book Audio Over IP: Building Pro VoIP Studios with Livewire by Steve Church and Skip Pizzi? If not... let Axia buy you a copy.

AxiaAudio.com/book/

Telos Nx12: 12 lines. No waiting.

Telos was first to use Mp3 technology, first to see the possibilities of ISDN, first to bring a DSP-based product to broadcasting, a hybrid by the way. Breakthroughs and innovations adopted years later by everyone else.

So, let's take our next call, shall we?

It's the Nx12, our most powerful performer, giving you the one-two punch of the latest Telos hybrid technology and audio processing by Omnia for the cleanest, most consistent call quality ever.

Nx12 has four advanced digital hybrids, each with its own AGC, noise gate, and caller override dynamics using carefully tuned DSP algorithms. Each also includes DDEQ, a sophisticated multi-band equalizer, which analyzes and adjusts received audio spectral characteristics so that calls sound smooth and consistent despite today's wide variety of phone sets and connection paths.

Let's face it, most people today are calling in on a cell phone. We get it. So, the Nx12's hybrids incorporate special echo cancellation for tricky cellular and VoIP calls. Unique to Telos, the Nx12 has an adaptive function that reduces the possibility of feedback in open speaker applications. So go ahead….put that talkshow on remote with an audience.

Available in analog or ISDN Versions. Nx12 can connect to as many as 12 analog POTS lines or up to 6 ISDN BRI lines (which would provide 12 caller channels). A digital switch matrix inside the Nx12 connects the lines to hybrids. The Nx12 works with all Telos control surfaces including the Desktop Director, Call Controller, and Console Director. Talent and producers benefit from the unique Telos features, such as our exclusive Status Symbol visual call management icons which clearly show line and caller status.

And, it's backed by the best support team in the business. The highly caffeinated 24/7 support techs.

Telos

AUDIO | NETWORKS

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World Radio History

Enhancing Our Way to Popularity

Tagging and Other Convergent Systems Could Help Radio Attract Future Audiences

THE BIG PICTURE

Skip Pizzi

The term "enhancement" has been used a lot lately in broadcast circles. No, I'm not talking about those TV commercials promising increased manliness, but about the addition of new functionality to radio that makes it — well, OK, sexier. (So maybe there's a connection there, but that's not the point ...)

We're talking about things like tagging, RadioDNS, a radio electronic program guide, social networking and mobile radio applications like Radiolicious, WunderRadio and iHeartRadio. These are all items we have discussed here individually in the past; but when viewing them all together, some important common threads emerge.

Analyzing these patterns may help us better understand the general path to future success for radio, and help promote development of additional — perhaps superior — solutions along the same lines.

ALL THINGS CONNECTED

The most obvious and fundamental property shared by those developments is their "connectedness" — they all involve some convergence of radio and the Internet.

Both radio and the Internet have extremely deep penetration (sorry, didn't mean to go there again), yet users of each service usually require separate terminals to access them today. So it's no wonder that there's much interest in development of systems and devices that could leverage an intersection of these separately popular mediums into a powerful, converged überservice.

Technically speaking, achieving this is almost trivial, given the amount of processing power and connectivity we have in our homes, offices, dashboards and pockets today. The real trick is gaining traction in the marketplace, which starts with getting all the necessary players involved to synchronize their efforts.

This is harder that it looks (OK, now just stop that!). The businesses that have established themselves around each component have their respective — and sometimes opposing — priorities and revenue models. Both technical and business elements must align for any convergence to take root. Only then can the process of motivating consumers' uptake of the service begin.

One solution is the creation of a new entity with no legacy interests, which drives the involved incumbents toward a commonly attractive goal. A great example of this is the process called "tagging."

THIRD-PARTY-DRIVEN

Basic awareness of tagging is fairly widespread in radio, but its precise operation is less understood. Because it represents a relatively successful, early instance of radio convergence, clarity on its operation is worthwhile. Here's how it works:

> **Both technical** and business elements must align for convergence to take root.

The third party driving music tagging today is a Seattle-based company called Jump2Go, founded by radio veteran (and RDS expert) Allen Hartle. The Jump2Go recipe includes the following ingredients:

- Music-formatted radio stations with metadata-broadcasting capability (FM RDS or HD Radio datacasting)
- Online music stores (iTunes and Zune Marketplace)
- Music players with FM or HD Radio tuners, including metadata reception and song-marking capacity in memory
- A backchannel method of connecting the devices to the stores (the Internet)

These items are then assembled via the following process:

1. Jump2Go works with Apple and Microsoft to obtain their current music catalogs, which contain unique IDs for each song they respectively carry. Jump2Go holds these IDs in databases, updated frequently.

2. As a participating station airs a given song, it sends the song title/artist data to Jump2Go in real time via a secure Internet connection. Jump2Go then sends the station back the corresponding (encrypted) Apple and Microsoft IDs in the form of a proprietary RDS ODA (Open Data Application) field, which is inserted in the station's RDS signal, and/or a corresponding HD Radio datacast field. (Jump2Go may also return scrubbed and reformatted title and artist data in the RT+ format for RDS, in or the PSD format [ID3] for HD Radio, plus additional rich data, like album cover art, for use in online streams. Note, that the music stores' song-ID tags themselves are *not* carried as RT+ data but in ODA fields.)

3. A listener with a tagging-enabled device (today these include Zunes running V3 or later software, iPod Nano V5 or one of several HD Radio/tagging-equipped iPod docks) listens to a participating station and tags a certain song. In addition to the song ID, the tag also includes a unique identifier for the radio station.

4. The listener then connects the device to the appropriate online music store, either via syncing it through a computer, or in the case of Zune, directly via a WiFi connection. All tagged songs are then displayed on the PC or device, and the user can choose to purchase and download them from the online store.

EVERYBODY WINS

By this process, the online record stores make additional sales, and the radio stations from which the tags originated get a cut of each sale (reportedly about 5 percent) as "affiliate" members.

It's a pretty straightforward process for all of the players. The online music stores utilize existing "Affiliate" programs to assign each station an affiliate ID that Jump2Go embeds in the Tagging ODA so the appropriate stations are given their earned commissions. Neither the music stores nor the stations have to deal with each other directly to complete these transactions, or worry about formatting/broadcasting the proper data — Jump2Go manages that for them.

Physically, the process is enabled by a small hardware device (not a PC) called the "JumpGate" that connects via USB or Ethernet to the station's automation system, its RDS encoder (plus its HD Radio Importer and streaming Web servers, if desired), and the Internet — for secure access to Jump2Go's data center. Stations buy these devices from Jump2Go, and pay the company a monthly service fee, for which Jump2Go provides rich metadata for the songs a station plays — including the tags that enable stations to collect new revenue via sales commissions from online music stores. (The JumpGate product also enables RT+ on RDS encoders that do not natively support that new format extension — in other words, pretty much *all* encoders in the field right now.)

Thus a single third-party operator

(continued on page 12)

WORKBENCH

(continued from page 8)

bulbs in the last few columns.

Paul Sagi, a broadcast engineer from Kuala Lumpur, Malaysia, offers a reminder. When the bulb being replaced is powered by AC, Paul has used a capacitor to limit the LED current. This application works well in higher-voltage situations.

Paul also uses a bi-polar red/green LED. When fed with AC, it glows yellow. In order to save space, Paul uses a tantalum capacitor. To make it bipolar, he connects two tantalum capacitors in series, negative to negative. The capacitors are about two times the value he wants. This is because they are in series. If a uni-polar LED is used, a diode must be placed in inverse parallel with the led so the capacitor has AC through it.

As mentioned, this works well when the AC voltage is high enough that a series resistor would dissipate too much power. Paul cautions to be sure the capacitor voltage rating is high enough, usually a minimum of twice the supply voltage.

Also remember that placing two capacitors in series gives the advantage of double the voltage rating.

One nice thing about LEDs is the many colors available. You can light your rack up like a Christmas tree. The colored meter faces are impressive to visitors to the station. Be sure to dim the lights!

Paul Sagi can be reached at *pksagi92@gmail.com.*

John Bisset has worked as a chief engineer and contract engineer for 39 years. He is international sales manager for Europe and Southern Africa for Nautel and a past recipient of the SBE's Educator of the Year Award. Reach him at johnbisset@myfairpoint.net. *Faxed submissions can be sent to (603) 472-4944.*

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

World Radio History

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

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World Radio History

Selected content from Radio World's "The Leslie Report" by News Editor/Washington Bureau Chief Leslie Stimson. To receive the free, bimonthly e-mail newsletter, subscribe at www.radioworld.com/subscribe.

SBE REVAMPS JOBS SERVICE, INDUCTS NEW OFFICERS

Outgoing Society of Broadcast Engineers President Barry Thomas, ending his second one-year term as president, said during the society's national meeting in central New York that he sought during his term to make lasting improvements.

Thomas mentioned several ways the organization has stepped up its education efforts for members, such as offering online certification courses.

In October, the SBE launched a revamped JobsOnline service, which is searchable by criteria, he said. More than 80 jobs were listed at the time. Users can have an e-mail sent when new jobs matching preferred criteria come online. Employers can post a job for free and those stay online for 60 days (unless they're filled before then.) Members see more information than non-members, an incentive to join the society.

In fact, Barry said, he found his current job as vice president of technology at Lincoln Financial through the SBE job bank. "I'm not only the president; I'm a client," he quipped.

New officers were inducted, with Vinnie Lopez moving from vice president to president of the society for a one-year term. Lopez is director of engineering for WYST(TV) and WNYS(TV), Syracuse, N.Y.

Ralph Hogan is now vice president; he's director of engineering for KJZZ(FM)/KBAQ(FM), Tempe, Ariz. Ted Hand is now serving his third term as SBE national secretary. Hand is chief engineer of WSOC(TV) and WAXN(TV), Charlotte, N.C.

Andrea Cummis, a broadcast consultant based in Roseland, N.J., is the new treasurer.

For the first time, the national SBE meeting was streamed over the Web, which I found helpful, and I bet members who could not attend the event did as well. The meeting was held in Verona, N.Y., at the Turning Stone Resort and Casino. Chapter 22 of Central New York State hosted the national SBE meeting, held in conjunction with Chapter 22's annual Broadcast and Technology Expo.

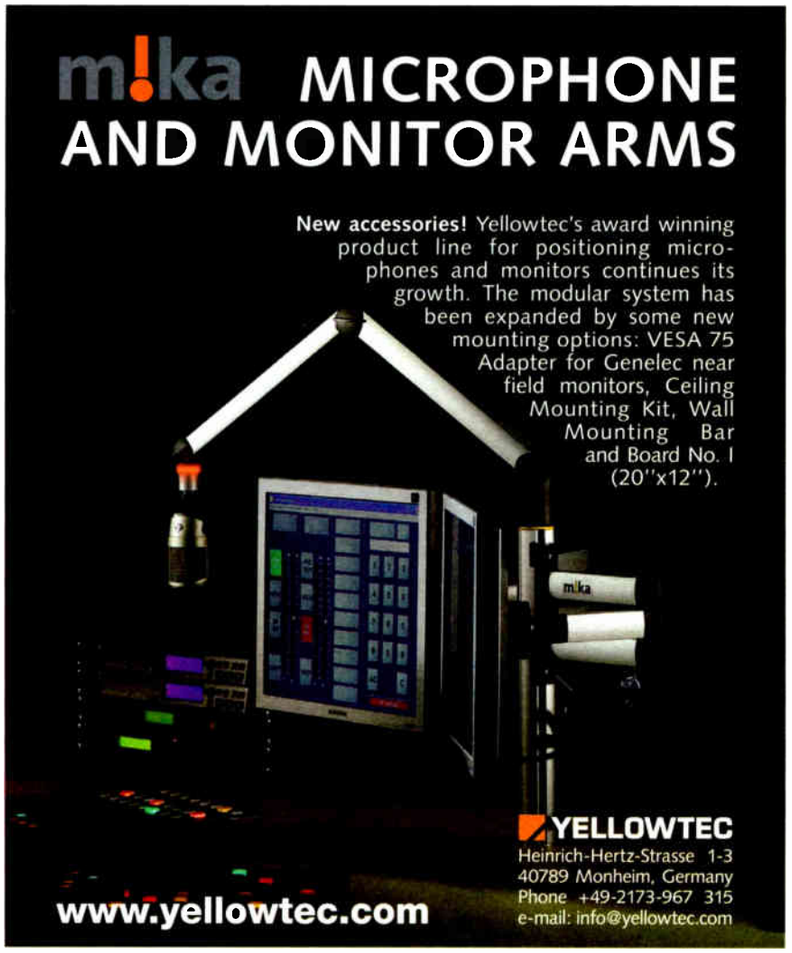
SBE EAS COMMITTEE GETS NEW CHAIRMAN

Clay Freinwald is stepping down from the board of the Society of Broadcast Engineers due to term limits and leaving his post as chairman of the EAS Committee.

That was one of the nuggets of news to come out of the national SBE meeting.

Clay, who is identified as closely as anyone in the industry with EAS (and who is a past recipient of Radio World's Excellence in Engineering Award), says he's served on the SBE board and chaired the EAS committee for a decade. He will continue working with the committee, "as will others" under the new chairman, Ralph Beaver, Freinwald said. Beaver operates Media Alert based in Tampa, Fla.

To sum up the latest regarding FEMA's 180-day "shot clock" — the turnaround time in which stations will have to install equipment that can handle the new Common Alerting Protocol — Clay said that clock will probably start ticking away in mid-2010 and that equipment manufacturers have said they will have enough supply. The new equipment will be easier to work with, once station personnel are trained on it, he predicts; it will be networkable and IP-addressable.



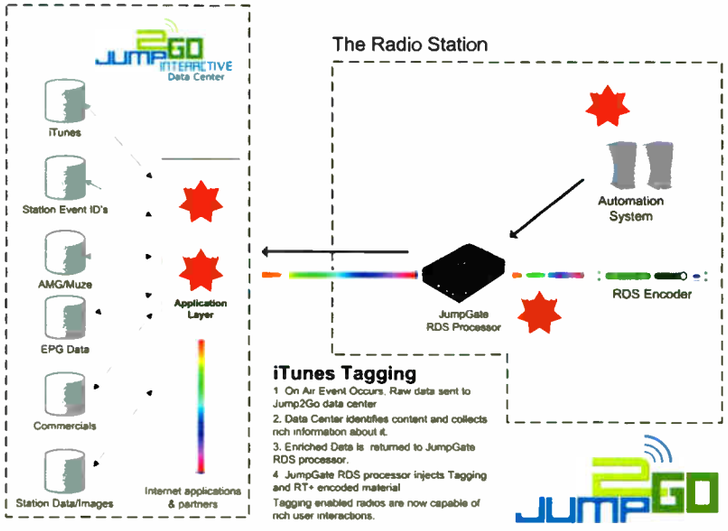
ENHANCEMENTS

(continued from page 10)

enables and adds value by streamlining the system for both ends of the process, acting as an aggregation agent or "clearing house" that links the songs radio stations play with rich metadata forms — including some that provide ecommerce opportunities via tagging.

This is the just the kind of model that is required to motivate all the necessary players in the value chain. It may sound innovative, and the specifics of it certainly are, but at its heart it's really no different than any traditional retail process, whereby a vendor markets and sells product through a series of other parties, each of which gain some benefit.

The power of converging two extremely popular but as yet largely disconnected media — radio and the Internet — will likely bring forth other examples of such "enhancements" in our future, and we'll continue to cover them here. (Seek help immediately if you find yourself reading about them for more than four hours.) More on this — and less innuendo — next time.



This is how Jump2Go explains the tagging services it provides.

Skip Pizzi is contributing editor of Radio World. Follow him on Twitter at http://twitter.com/skippizzi.

World Radio History

EVERYBODY WANTS ONE.

And who could blame them? Omnia ONE is the most flexible processor ever built. Yes, it can be used for FM processing. Or AM processing. Or netcasting or even studio production and mastering. Everybody wants more for their money. Omnia ONE delivers. And of course, the ONE has the smooth, punchy, brilliant sound that has made Omnia the #1 processor brand in radio. Everybody can now sound amazing. And we do mean everybody. In less than two years, we have sold more than 2,000 units, making ONE the most successful new processor introduction of all time. Go ask a broadcaster who has an Omnia ONE. You won't have any trouble finding ONE.

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World Radio History

PowerStation: the new console system from Axia.

COOL STUFF AWARD Radio World 2009

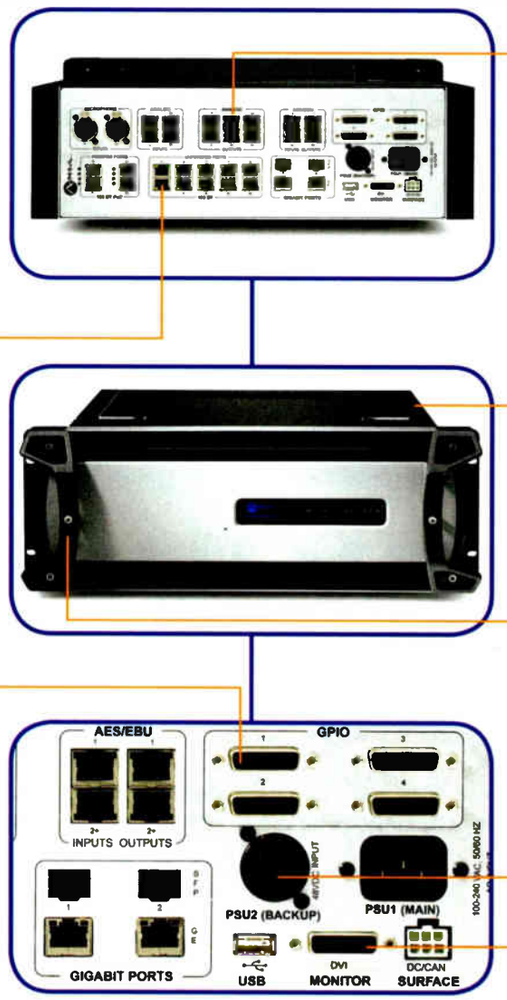
Because there's no such thing as too much uptime.

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

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

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

Everything's included • Yeah, we said *everything*: PowerStation combines half-a-dozen essential tools into one compact unit. No hidden extras to buy, no "gotchas" after purchase. Inside that muscular chassis you'll find a **bulletproof mixing engine** capable of handling consoles up to 40 faders, a beefy power supply (with optional **redundant power**), machine control ports, and **audio I/O**, all in one box. And of course, since it's from Axia, the IP-Audio experts, a studio built with PowerStation can stand alone — or it can become a part of a large network quite easily. Thanks to **PowerStation Simple Networking,** you can daisy-chain up to 4 PowerStations directly for easy multi-studio installation without the need for a separate core switch. Just another way Axia makes IP-Audio easy.



You're covered • Axia has the most comprehensive warranty in the industry — **5 years parts and service.** And (not that you'll need it), **free 24/7 technical support,** 365-days-a-year. We've got your back, my friend.

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

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

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

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

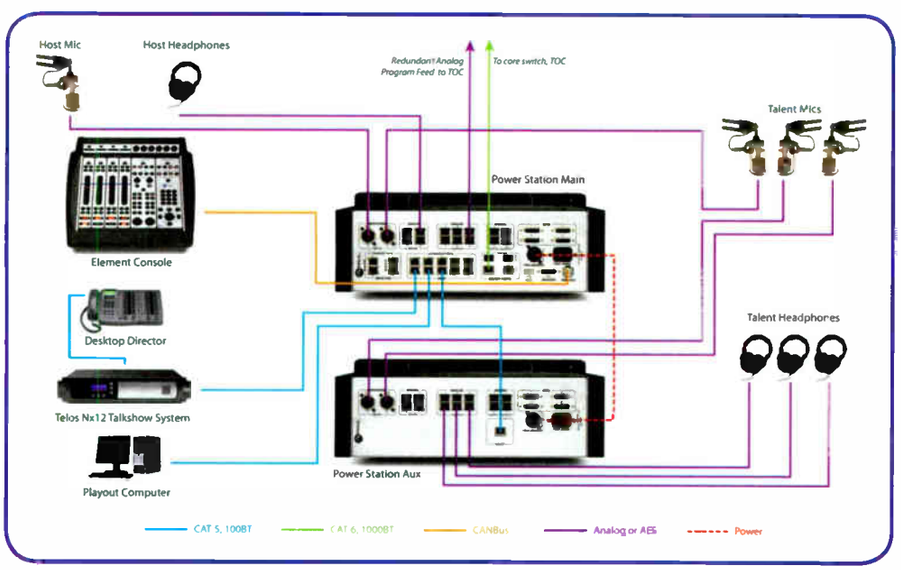
Screen play • Yep, that's a DVI connector. **Your favorite monitor** – standard or widescreen – plugs in to present the console operator with Axia's "so easy an overnight jock could do it" **info-center display.** Meters, timers, fader assignments, mix-minus settings and more, all on-screen, on-demand.

World Radio History

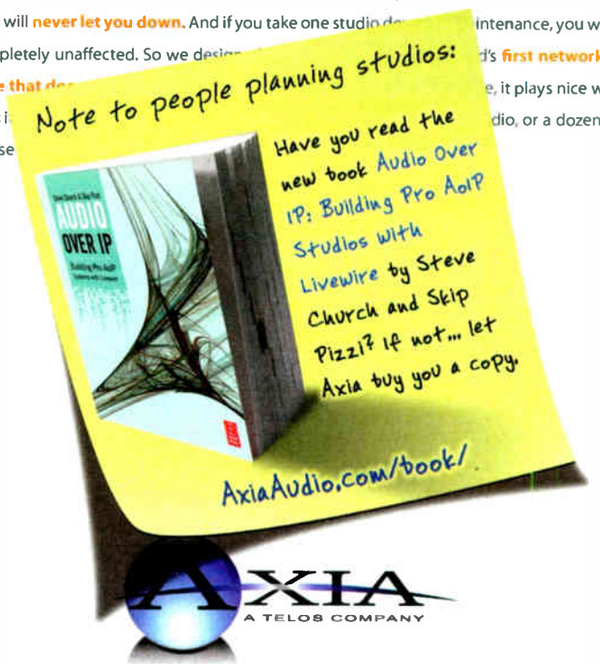
Element shown in Silver/Charcoal color w/wrap. Also available: Bronze/Charcoal and Warm Gray.

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

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



The standalone network • You want your console to be more than just reliable — you want it **built like a battleship.** You want the absolute peace of mind that comes from knowing your gear will **never let you down.** And if you take one studio d… intenance, you want the rest to be completely unaffected. So we desig… d's **first networked broadcast console that do**… e, it plays nice with others, but unplug i… dio, or a dozen, at any pace you choose…



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World Radio History

Photo of Pulsecom circuit board by Jim Peck

This special section of Radio World highlights new and featured products that were on exhibit at the fall NAB Radio Show in Philadelphia. RW welcomes news about new products to radioworld@nbmedia.com.

BELAR HAS THE SOLUTION

Belar Electronics Labs calls the soon-to-ship FMCS-1 the "FM Solution." It even says so on the front panel.

Designed to be available in a basic model or a more feature-filled configuration, the FMCS-1 handles FM RF carrier measurements, AM and sync AM noise measurements, variable BW digital IF and composite filtering, RDS injection/phase and data decoding, peak and RMS measurements. The RF input is frequency agile.

The "complete" unit adds items such as a spectrum analyzer for RF, composite and FFT analysis and dual SCA decoders.

An RJ-45 connector links the FMCS-1 to the Internet for remote monitoring. A headphone output allows for local monitoring.

Info: www.belar.com

Center Stage Live With CSRDS

Includes 18 tools to create, capture, schedule, format and deliver copy

"The listener's display, 'comes alive' with rich content"

COO/Sr Engineer Ben Barber - Inovonics

Capture RDS Content with Center Stage Live

- One or more Automation Systems for different day parts
- Station, Date, Day-of-Week, Time-of-Day and "Triggered" Text Scheduling
- Local Weather Forecast from the Web

Output Text Messaging with Center Stage Live

- RDS/RBDS Encoders
- HD Radio Systems
- Web Sites
- On-Line Streams
- Other Applications

COOL STUFF AWARD Radio World 2009

Go Green with Center Stage Live

Cut printing costs and help the environment click on www.arcticpalm.com for details

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AUDIOSCIENCE CARD CERTIFIED BY IBIQUITY

In synch with one of the themes on the NAB Radio Show floor, namely HD Radio, AudioScience announced that its ASI8914 tuner card has met iBiquity Digital's HD Radio requirements.

The four-channel PCI card offers independent operation of each channel and each is capable of handling HD Radio tasks.

It will decode HD Radio PAD information along with RDS/RBDS data for FM analog. PAD Main Program and Secondary Program services can be accessed separately.

Output from the tuners can be recorded in PCM, MPEG Layer II or MP3, with a sample rate of 8–48 kHz. Windows and Linux drivers are available.

Richard Gross, president of AudioScience, said, "The ASI8914's certification is very timely. The HD Radio market has grown immensely since we introduced our HD Radio-capable card."

Info: www.audioscience.com

ENCO PRESENTS NEW PRESENTER

ENCO Systems had several things going on at its booth at the fall NAB Radio Show. One was a demo of the new Presenter digital radio automation platform.

Don Backus, VP of sales and marketing said, "Presenter is designed to be used easily. We wanted more than just big buttons and bright colors, we wanted to deliver substance behind the style, and that is where Presenter excels."

ENCO also showed the latest tweaked DAD. And the company recently announced a plan to team up with Dave Scott to provide legacy servicing to SS32 radio automation systems. Scott said he'd rehired a "number of my best techs" who'd subsequently worked with Google until that firm departed the radio automation biz. "We'll support and tune up software for SS32 systems. Scott-ENCO will provide new options for this great gear."

Info: www.enco.com

COMREX UPGRADES ACCESS FIRMWARE

Codec maker Comrex announced a firmware upgrade for its Access rackmount and portable codecs.

Photo by Jim Peck

Version 2.7 includes a number of features including BRUTE — for "BRIC UDP Transmission Enhancement." BRUTE takes Comrex's BRIC technology and adds the codec signal equivalent of collision detection to optimize performance over congested networks.

Also added in the upgrade is N/ACIP IP codec interoperability, HTTP streaming, 3G wireless compatibility and FLAC capability.

The upgrade is a free download from the Comrex Web site.

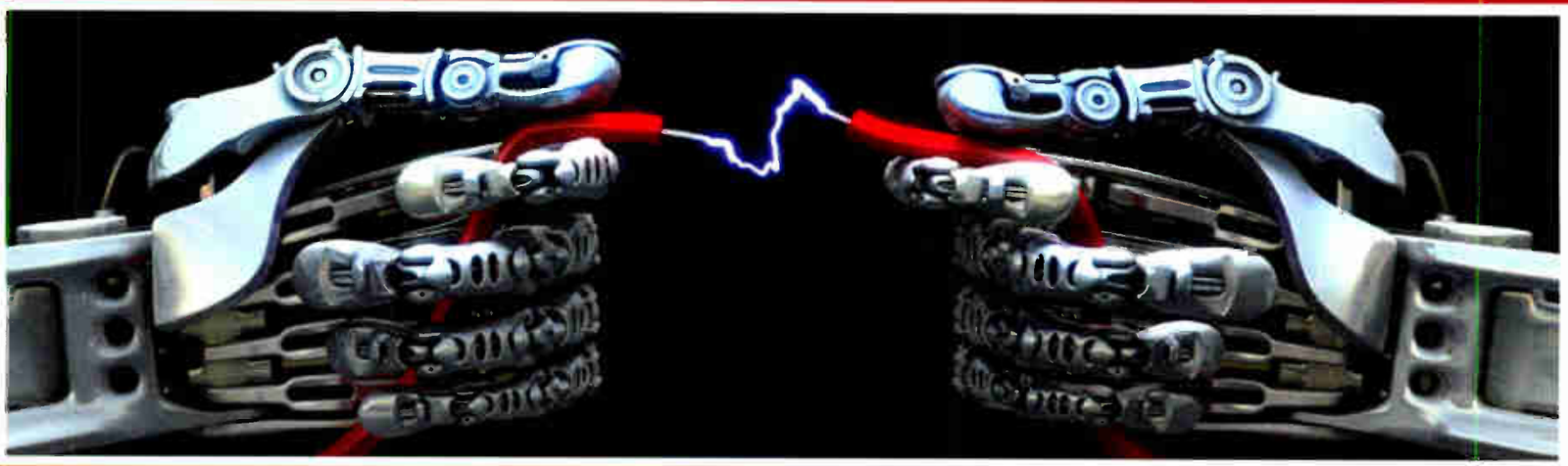
Shown, Kelly Clark of Comrex demonstrates the Access Portable to Pat Delsi.

Info: www.comrex.com

World Radio History

Automation

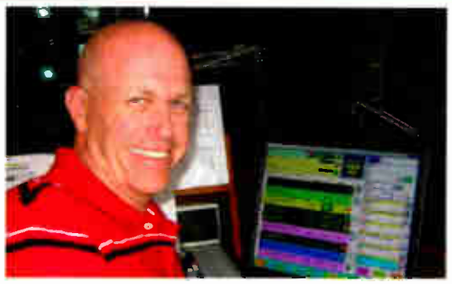
Simple • Powerful • Redundant



Not since Axia audio-over-IP was introduced to the broadcast industry have we at BGS been so excited! It is with great enthusiasm we'd like to invite you to take a look at the new Op-X Radio Automation delivery system for any single or multi-station cluster. Op-X works seamlessly with Axia IP-Audio networks or as a stand-alone system.

*"The merging of traffic and music logs takes a mere :30 seconds, making it among the easiest I have ever worked with. Once you get used to your adjustable personal color scheme, everything is pretty easy to follow. The best part about this system is the LACK of "dead-air" or "hangups" during automation. PD's will breathe a sigh of relief at this. Another thing that stands out is the absolute ease with which you can build your personal hot keys for each air talent. If you organize your show properly ahead of time and know where you are going, this system will make your show much easier and let you concentrate on *sounding good* on the air."*

~ Jim Franklin, Program Director
WVBO, Appleton/Oshkosh - Wisconsin



"Opx is very functional and easy to use. One the best features is the log merge. On our old system it took minutes and with Opx it takes only seconds"

~ John O'Dea , Operations Manager
WNNK-FM, Harrisburg - PA

"A fast paced station needs a system that can keep up and is easy to use. Op-X gives us the tools we need to deliver the sound Houstonians have come to expect from KRBE."

~ Leslie Whittle, Program Director
KRBE, Houston - TX

If you're looking for an audio delivery system~ you owe it to yourself to find out more about Op-X. Give us a call or email info@bgs.cc!

Broadcasters General Store

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BGS

Op-X RADIO AUTOMATION

BSI

AXIA

World Radio History

BSI UPGRADES RADIO AUTOMATION PACKAGES

Broadcast Software International had two new radio automation goodies in its booth, Op-X and Simian 2.0.

Many NAB attendees got their first look at the most recent iteration of Broadcast Software International's Op-X automation package.

Op-X handles most automation aspects including production, scheduling, content management, engineering and maintenance.

It is designed for use with touchscreens though it can also be used with a traditional keyboard/mouse pairing. A single server package can service multiple stations. Op-X also works for voice-tracking operations.

The latest in Simian is a 2.0 version.

Info: www.bsi-usa.com

BURLI DEMONSTRATES PODDIO LINK

Canada's Burli Software took advantage of one of the hottest items at the convention, the VeriCorder Poddio iPhone recorder package, by demonstrating how it interfaces with Burli's Newsroom news production system.

Working with the Newsroom system, Poddio users can send audio files and text directly into the system for use by station personnel or anyone remotely accessing the system.

Burli also showed the latest version of the networkable Newsroom system. Featuring ingest, editing and content management modules, Newsroom handles the latest in new media technology such as one-click podcast creation, interfacing with Internet Web sites and RSS. It also offers a prompter module for reading finished copy.

The ingest module has been enhanced to accept many different media formats such as newswires, FTP files, MP3, XML, RSS, e-mail and faxes.

Info: www.burli.com

ARMSTRONG SHOWS AM AND FM TRANSMITTERS

Armstrong Transmitter had both sides covered at the fall show, with AM and FM transmitters.

At 35 kW the FM35000T2 is the latest and strongest of Armstrong's T2 line of FM transmitters. Features include single-tube oscillation-free, neutralization-free, long-life operation, as well as power amp arc detection and temperature sensors in the power supply. The T2 range goes from 10 kW to 35 kW.

The X1000AM is a 1 kW member of

Photo by Jim Peck

the X family of solid-state low-power AM transmitters. Designed for low maintenance, the X series claims 80 to 90 percent efficiency and can be mounted in seven rack spaces. It is also HD Radio-compatible.

Shown, David Skalish of CBS Radio Philadelphia, Steven Hemphill of Solid Electronics Labs and Kevin Smith of Armstrong discuss the product line.

Info: www.armstrongtx.com

DAVICOM UPGRADES MACS

Davicom has announced upgrades to its MAC remote control/monitor line of products.

Leading the way is MacNet 5.30, multiple site alarm management software. New in version 5.30 is Unicode compatibility for handling foreign languages; bit map compatibility for improved display; bidirectionality with multiple modems; ability to present and address multiple MacComms concurrently; alarm forwarding via e-mail, pager, SMS and printer; mapping compatibility with MapPoint 2009 software and Windows Vista and 7 compatibility.

A firmware upgrade, 5.40, is expected to be available soon for MAC units. The highlight of the upgrade promises to be compatibility with MODBUS devices.

Info: www.davicom.com

BARIX/STREAMGUYS UNITE TO INSERT ADS

Internet streaming company StreamGuys and IP audio equipment manufacturer Barix, with a little help from Barix's Swiss neighbor MOH Technologies, have developed an IP audio system with the capability of handling local ad/spot insertions painlessly.

Showing a system at the NAB Radio Show, Barix and StreamGuys claimed to have solved a key problem. Generally, it is difficult to insert local ads into a live audio-over-IP stream. It usually requires delaying or holding the IP audio in a buffer while the local ad is played and then restarting the IP audio stream.

This system offers the luxury of an almost hands-free operation for a local station, they say. The key is MOH's Adiosys middleware and the Barix Real-Time Protocol (BRTP) IP audio standard.

The operation goes something like this: A station uses a Barix encoder like the Instreamer 100 to encode a station signal and send it to a StreamGuys server. That server has MOH's Adiosys loaded onto it along with a station's local spots, jingles, FX (if necessary), etc. Without having to decode the digitized audio, Adiosys is capable of inserting the ads, spots, everything on the fly according to a schedule provided by the station.

The spot-loaded (and FX-assembled if necessary) audio is redirected back to the station, transmitter and/or Web streaming server where it is decoded by a Barix decoder such as the Exstreamer 100. According to Barix latency is kept to a minimum.

Info: www.barix.com, www.streamguys.com

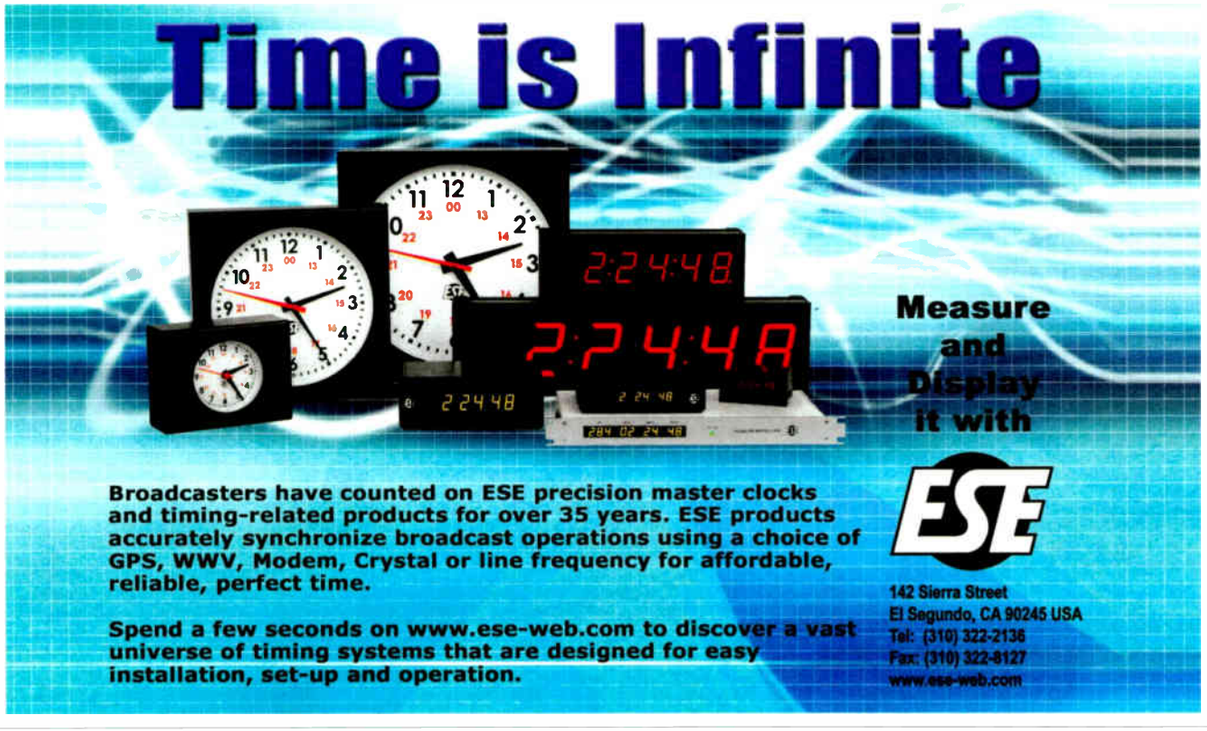
COAXIAL DYNAMICS WATCHES THE WATTCHMAN

Coaxial Dynamics showed its Advanced Wattchman monitor/alarm system.

Advanced Wattchman is capable of monitoring forward and reflected in two transmission lines. Whether the lines are analog or digital does not matter. FM, IBOC, DTV, CDMA or CW formats are covered as well.

The system can handle lines as large as 6-1/8-inch, power up to 100 kW and frequency ranging from 2 MHz to 2.3 GHz. Alarms can be audible and sent via e-mail.

Info: www.coaxial.com



World Radio History

"WOW, I COULDA HAD A VP-8!"

VORSIS VP-8 IS THE BEST AUDIO PROCESSOR FOR UNDER $3K. PERIOD.

The Vorsis VP-8 Digital Audio Processor delivers clean detailed sound at a great price. In fact, you can easily spend two to three times more and still not match the VP-8's performance.

Installation and setup takes only minutes. The VP-8 is loaded and ready to go for FM, AM, FM-HD, AM-HD, streaming, and studio processing. It's great sounding presets are carefully tailored for your format and media. No need to spend endless hours tweaking, the VP-8 will make your station sound great, right out of the box.

For FM stations, expect a sound that easily holds its own with your high-power major market competitors. Listeners comment that with the VP-8 they now hear the rest of the music! AM stations often experience a dramatic increase in coverage area along with greatly improved intelligibility and sound quality.

The VP-8 is also ideal for streaming audio, studio processing, as a versatile backup processor or as an STL protection limiter.

Of course, if tweaking is your thing, VP-8 lets you under the hood with a complete toolset – in the VP-8, nothing is hidden. With its 4-band AGC/compressor and 8-band limiter, the VP-8 boasts more bands than any other processor in its price range to give you a very clean, loud, competitive sound that doesn't destroy the music.

It also includes features rarely found even on top-of-the-line processors: a reference-grade stereo encoder for FM, built-in test oscillator, diversity delay, multi-point headphone monitoring, and extensive metering.

The bottom line? The Vorsis VP-8 gives more bang per buck than any other audio processor in its class (and then some). And since Vorsis is designed and built by Wheatstone here in the US, you know it'll hold up and be supported 24/7 for years and years.

Intrigued? Call us or visit us on the web to learn more or set up a demo. You'll be happy you did. Vorsis—more listeners listening more.

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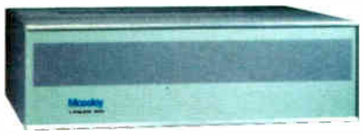
STIMULUS SALE PROVIDES SAVINGS ON MOSELEY LANLINK

Moseley Associates promoted its license-free STL products at this year's NAB Radio Show.



The Event 5800 is a high-capacity bidirectional STL capable of moving audio and data for nine radio stations. Moseley also announced the kick-off of the LanLink Stimulus Sale by taking $1,000 off the list price.

"This will make it affordable for budget-strapped broadcasters to take advantage of LanLink's savings and the efficiency of network solutions like IP control, security surveillance, Internet and e-mail by extending the LAN to the transmitter site," the company stated.

Info: www.moseleysb.com

NAUTEL'S NX LINE GOES LONG

Canada-based transmitter maker Nautel has added to its NX line of transmitters a model modified to handle long-wave transmission.

The NX300-LW output range matches ITU Region 1 LW Band (148.5 kHz to 283.5 kHz). The hardware is based on the current NX300 and shares the rest of its features and power specs (330 kW). It's a solid-state transmitter with hot-pluggable power modules.

Photo by Jim Peck

It has Nautel's Advanced User Interface control scheme, accessible through a front-panel 17-inch LCD touchscreen or remotely via IP. AM adaptive precorrection and 2.7 mega-sample/sec Direct Digital Modulation are part of the package. An onboard spectrum analyzer is included as well.

Nautel's Hal Kneller, right, discusses the company's offerings with Jim Duff and Bruce Wahl of NPR Distribution.

Info: www.nautel.com

ATI ADDS TO SERIES 3 DISTRIBUTION PRODUCTS

Audio Technologies Inc., maker of utility boxes, converters and distribution amps, showed the MCDA-208/WC106. In ATI-speak that is a master clock distribution amplifier with dual 1 x 4 AES/EBU outputs and a 1 x 6 word clock distribution amplifier.

The sample rate line-up consists of 44.1, 48, 88.2, 96, 176.4 and 192 kHz. All outputs are isolated for independent activity. The unit also accepts external clock input.

Photo by Jim Peck

Also shown was the DDA-416/WC106, a four-output AES/EBU digital distribution amp with a 1 x 6 word clock distribution amplifier tossed in for good measure. External clock inputs and loop-throughs expand capabilities. XLR and BNC connectors are used.

Shown, Robert Weiss with the School District of Philadelphia hears from Art Constantine of ATI about the introductions.

Info: www.atiaudio.com

RCS GSELECTOR UPGRADES

RCS has released version 3.12 of its GSelector scheduling package.

Enhancements include the capability to add and access more than one database at a time. Another is a modification to the music selection search parameter that provides for an alternative "hour-centric" search and selection process. It also adds a "search depth" setting.

Previous History Maps are now more than merely viewable but rather accessible and can be clicked on to provide information.

The Import/Export Web Service has been broadened to allow third-party development.

Info: www.rcsworks.com

DAYSEQUERRA WHEELS OUT DIVERSITY MONITOR

One of the eye-catching booths in Philadelphia was DaySequerra's. It had a 2010 Lincoln MKX with a tricked out THX II-certified 5.1 surround sound system demonstrating DTS Neural-encoded programming from American Public Radio. Brittney Day is shown with the vehicle.

Photo by Jim Peck

Also shown was the M4DDM Diversity Delay Monitor, which automatically synchronizes analog and main HD Radio channel broadcasts, solving the problem of drifting over time. It was a Radio World "Cool Stuff" Award winner this spring.

A DSP-based algorithm called TimeLock measures the HD Radio analog and digital program diversity differential with accuracy to one audio sample. (This also is the first product to incorporate DaySequerra's latest DSP architecture.)

Using a selective off-air tuner, the M4DDM measures the MPS analog and HD1 digital audio diversity, calculates the number of audio samples that must be added or subtracted to synch the two audio streams, determines the level offset required and generates a continuous stream of correction vectors to keep the A and D audio time- and level-aligned.

The correction vectors can be processed internally by the M4DDM to delay the digital program audio or sent via Ethernet to an Embedded Exporter or audio processor to provide the necessary adjustments to the analog audio delay.

Info: www.daysequerra.com

A NEW ROTOTILLER FOR ERI

From ERI is the latest in its Rototiller Axiom series of broadband FM antennas. Now available is a four-bay version, SHPXA-4.

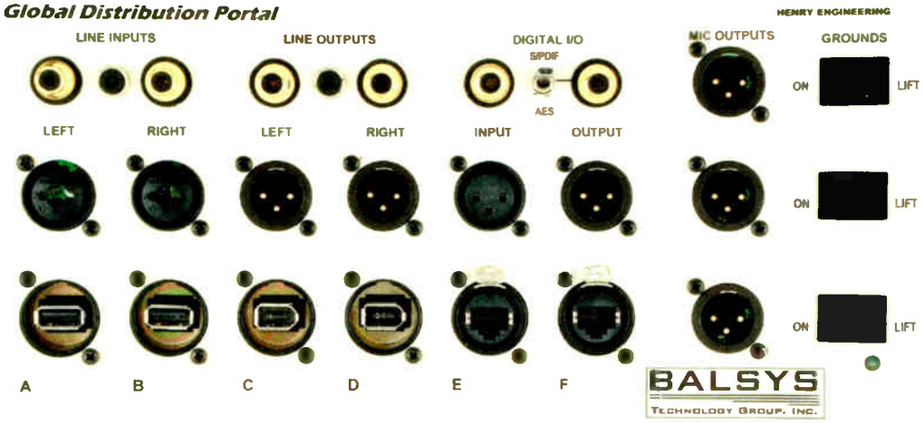
The four-bay covers the full FM band

Universal Studio Connectivity

Don't Build A Studio Without One!

The Global Distribution Portal provides convenient two way interface between any Studio / Central Audio System and external equipment. Active circuitry supports both Analog & Digital Stereo I/O in both Professional & Consumer formats, utilizing the most commonly encountered audio connectors.

3 Mono Summed Output Feeds at Mic Level. Independent Ground Lifts. Spaced to permit use of Wireless "Butt Plug" Transmitters.



6 Utility Feedthrough Connectors. Standard configuration is 2 each USB, Fire Wire, and RJ-45, but all are interchangeable and can easily be field configured as desired.

3RU High - Rackmount Adapters optionally available.

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World Radio History

and handles RF input power from 39 kW to 112 kW. It will operate in single- or multi-channel configurations; as a main antenna or backup. It is designed for side-mounting.

Photo by Jim Peck

Using brass, it is lightweight and its "rototiller" design minimizes wind resistance. De-icing heaters are optional.

The company also promoted its range of RF products and services. Shown, Michael Reath and Jeff Twilley of Delmarva Broadcasting discuss an HD Radio project with ERI's Bill Harland.

Info: www.eriinc.com

V-SOFT TRAINS AND UPDATES

NAB Radio Show attendees didn't have to visit the V-Soft booth to encounter V-Soft personnel. Mr. V himself Doug Vernier, John Gray and Kate Michler were conducting training sessions for V-Soft test and measurement software in rooms adjacent to the show.

Meanwhile, back on the floor the latest in V-Soft software was on display, notably on Probe 4, AM-Pro 2 and FM Commander. The V-Soft personnel also explained their recent server upgrade and any required program reinstallations. The new servers are more secure, better performing and more reliable, according to V-Soft.

Info: www.v-soft.com

WIDEORBIT INCORPORATES GOOGLE

WideOrbit showed off its big recent acquisition, Google Radio Automation.

Now called WO Automation for Radio, the automation suite is being integrated with WO Traffic, WideOrbit's existing traffic and billing system.

Photo by Jim Peck

WideOrbit demoed the two together, pointing out built-in efficiencies in workflow.

Shown, "Dub" Irvin and Brad Young of WideOrbit speak with Conrad Trautmann, recently named executive vice president of technology tor Dial Global/Triton Radio Networks.

Info: www.wideorbit.com

AXIA: EASY TO DEPLOY

Axia's PowerStation, a new all-in-one IP-Audio console system, combines analog, digital and microphone I/O, a console power supply, DSP mixing engine and network switch into an easy-to-deploy package.

"Connect your studio gear with standard Cat-5 cables, connect an Element console with just one cable, name your sources with a browser, and you're ready for air," the manufacturer states.

"PowerStation can be the heart of a standalone studio, or part of a larger Axia network."

Simple Networking lets the user daisy-chain up to four PowerStations for multi-studio installation without a separate core switch. Industrial-grade components and redundant power capabilities help ensure 24/7 reliability.

Info: www.axiaaudio.com

FT. MYERS BDCST. CO. UTILIZES KINTRONIC HD COMPATIBLE EQUIPMENT
TO INVEST IN THE FUTURE OF SOUTHWEST FLORIDA RADIO WITH ...

KINTRONIC LABS

WNPL-AM 1460

FOX SPORTS RADIO 1200 1460

... requires precision Design, Engineering and Equipment. For this project we turned to Kintronic Laboratories, Inc. for the WNPL-AM Phasor, Antenna Tuning Units and Filters. ... Kintronic Laboratories, Inc. provided superior Design, Engineering and Manufacturing of its equipment for WNPL-AM's transmission facility and performed exactly as specified. Because of the work by outstanding companies like Kintronic Laboratories, Inc. whose effort helped to make this radio station a reality, WNPL-AM 1460 now offers its listeners great sound and great coverage.

Keith Stuhlmann
Director of Engineering
Fort Myers Broadcasting Co.

KinStar Antenna

- LOW COST
- SHORT INSTALLATION TIME
- WIDEBAND FOR HD RADIO
- HIGH RADIATING EFFICIENCY
- LOW VULNERABILITY TO LIGHTNING
- MEETS LOCAL ZONING HEIGHT RESTRICTIONS

FIELD SERVICES

- Troubleshooting AM antenna systems
- Installation supervision of KTL supplied equipment
- Assessment of existing stations for upgrades to digital
- Support services for Broadcast Consulting Engineers
- Site surveys and associated measurements
- On-Site training of Kintronic supplied systems and accessories
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SHIVELY SHOWS BROADBAND DIPOLE

The Shively Labs 6020 broadband dipole is designed to be deployed rapidly either singly or in branch-fed arrays. The company said it is suited for standby or emergency situations and is rated at 5 kW per dipole with a 7/8-inch EIA connector.

A single 6020 offers an input VSWR, out of the box, under 1.25:1 at the band edges, and much less within the midband frequencies.

The manufacturer also is introducing an additional line of broadband FM panels, based around the 6020 dipoles, designed for either square or triangular towers.

Panels will be available in circularly polarized and linearly polarized versions, suitable for lower powers and providing significant savings in costs when compared to the 6014 and 6016 high-power panels.

Both the dipoles and the panels are designed to be "flat-packed" for ease of shipment, offering broadcasters an efficient, versatile antenna system at low cost that can be deployed rapidly, Shively says.

Info: www.shively.com

PULSECOM STL IS 'ARMORED'

Pulsecom introduced the "armored" PCAU-Suite Monoblock STL, an integrated studio-to-transmitter link solution for HD, FM and AM stations.

The company says 7,300 of the original PCAU STL have been placed in service, but until now its technology has only been available as telco tariffed Program Audio services.

"The PCAU-Suite makes PCAU technology available directly to broadcasters for use in microwave, leased line, on-line or private network STL applications."

Pulsecom emphasizes its quality, features, savings and focus on protecting broadcast content, with design features to protect the system from "threats posed by hackers, lightning, power interruption and even the pops associated with uncompressed signals."

The manufacturer says stations can benefit from its track record at cell towers. "We have over 40,000 T1 circuits in use at towers today and the reliability has been so good, many locations in lightning-prone areas like Florida refuse to use equipment from other vendors," stated Bob Blankenship, Pulsecom's national sales director.

The PCAU-Suite includes this lightning protection plus full-duplex analog, AES/EBU digital, Ethernet, RS-232 RDS links and Enhanced apt-X technology.

Info: www.pulse.com

LOGITEK PILOT: AFFORDABLE, SCALABLE

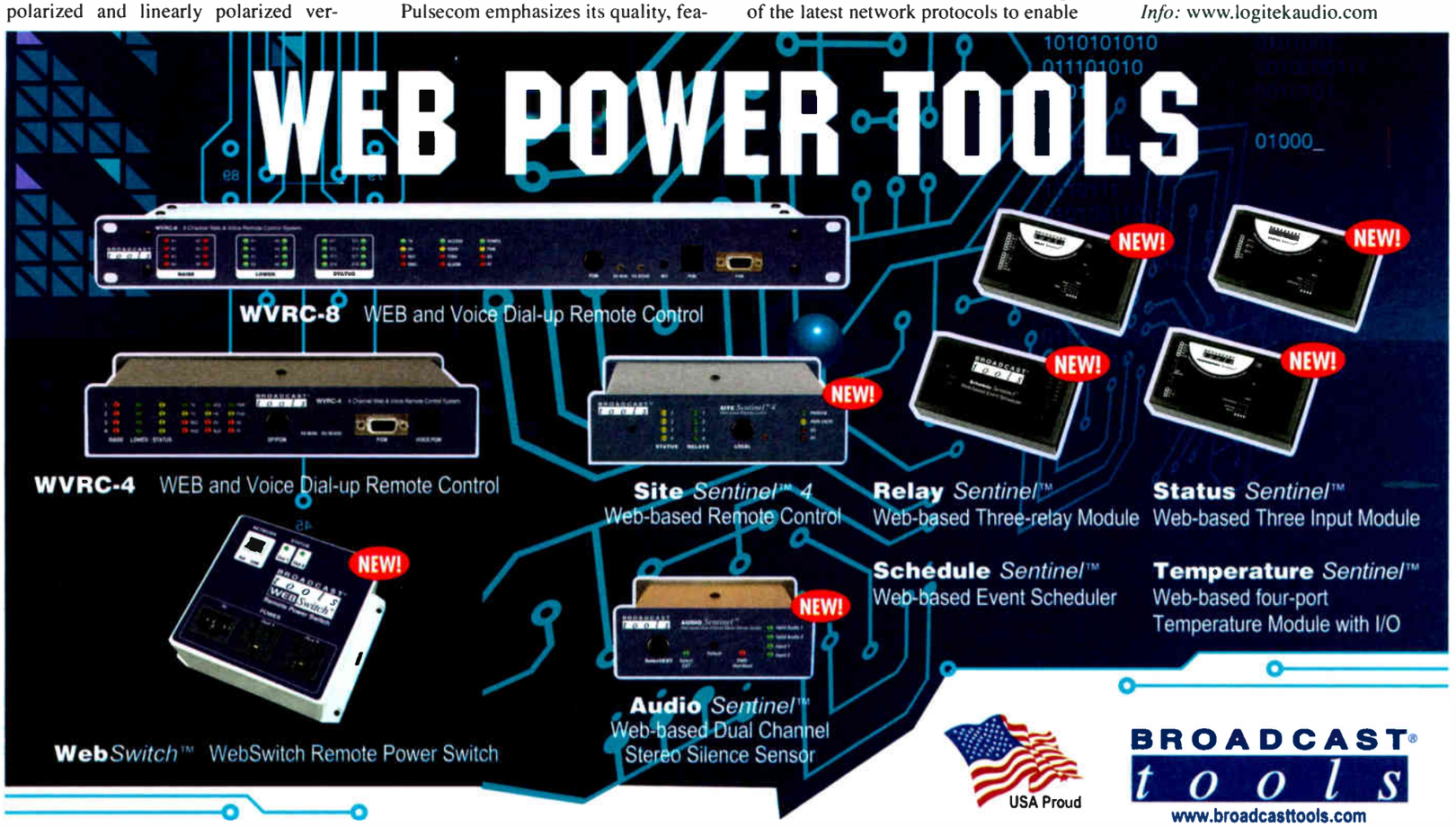
Logitek Electronic Systems featured the new JetStream Mini IP audio networking system and the Pilot console, shown, an inexpensive audio control surface for IP audio networking systems.

The JetStream Mini takes advantage of the latest network protocols to enable fast and accurate configuration of all JetStream units on a network, the manufacturer says. Its scalable and compact design packs a suite of features into a

single 2 RU enclosure including eight I/O card slots accommodating five types of I/O cards, audio confidence indicators, extensive GPI I/O, 2 GbE Ethernet ports and redundant power supplies. The unit offers built-in profanity delay, input metering and mic processing.

The Pilot surface's scalable design provides up to 24 faders in increments of six faders. The Pilot includes bright, wide-angle displays below the faders, which have room for 16-character source names and support Unicode characters for display of Chinese or Kanji text. Extensive mix-minus capabilities are available along with access to analog and digital I/O and IP network audio sources.

Info: www.logitekaudio.com



World Radio History

TIELINE OFFERS LOW-COST IP AUDIO

Tieline displayed its Bridge-IT IP audio codecs, emphasizing their utility for low-cost, point-to-point and multipoint IP audio links over wired and wireless WANs, LANs, the Internet, satellite IP, WiMax and Wi-Fi.

The codec offers 16 bit/22 kHz linear audio, G.711, G.722, MPEG Layer 2, Tieline Music and MusicPlus algorithms, with optional AAC LC and AAC HE. Features include broadcast connections; simultaneous analog and digital AES/EBU outputs; SD card failover playback; keypad and LCD display; and on-board Web GUI.

Tieline's QoS Performance Engine manages IP network connections.

Info: www.tieline.com

VERICORDER TURNS IPHONE INTO A RECORDER/DAW

VeriCorder's Poddio is an iPhone application that turns an iPhone into a handheld recorder and digital audio workstation.

The iPhone records a sound or interview as a WAV file. A waveform editor then is used to edit the piece or cut together several pieces. Using the phone's virtual keyboard a text description or script can be entered. All of this is packaged up and sent via the iPhone to its destination through e-mail or FTP.

At the NAB Radio Show Burli Software was demoing the Poddio's ability to interface with Burli's Newsroom content manager. VeriCorder is expecting for the Poddio to work with more newsroom systems.

Info: http://vericorder.com/products/poddio

WORLDCAST SHIPS EQUINOX

WorldCast Systems, the newly-rebranded group comprising Audemat, Ecreso and APT, showcased new and updated products for delivery, transmission and monitoring of broadcast audio.

The group is now shipping WorldCast Equinox, shown, an addition to APT's range of IP audio codecs. As well as IP audio transport, it offers an X.21 interface, two BRI ports, a range of algorithms and multiple levels of redundancy.

For audio transmission, Ecreso's new cost-effective, space-efficient line of FM transmitters was on display. Based on a modular, hot-swappable architecture, the line is composed of a series of 1 kW amplifiers, each redundant and

offering 2 MOSFETs with an independent power supply.

Ecreso announced a new advanced audio back-up feature on the Next FM, an "all in one" FM transmitter solution that combines a 1, 20 or 100 W FM exciter/transmitter with digital audio processing, stereo encoding, RDS encoding, audio back-up, I/O remote control and TCP/IP connectivity in a 3U enclosure.

For professional audio monitoring, the group launched a new version of Audemat's HD Radio modulation monitor. The Goldeneagle HD 2.0 offers a new hardware platform and a new HD Receiver for the decoding, monitoring and streaming of advanced HD Data with support for iBiquity HDP and advanced RDS monitoring.

Info: www.worldcastsystems.com

EVENT 5800
HIGH CAPACITY BIDIRECTIONAL STUDIO TRANSMITTER LINK

TRANSPORTS UP TO 9 RADIO STATIONS, UNCOMPRESSED, OVER A SINGLE LINK

EVENT 5800 IDU

EVENT 5800 ODU

The Moseley Event 5800 — is a carrier class T1/E1/IP Ethernet radio link. Combined with the Starlink SL9003T1, the Event 5800 creates a high capacity bidirectional STL/TSL.

HIGH PAYLOAD CAPACITY
HD RADIO™ READY TODAY
LEVERAGE IP DEVICES AND APPS
EASY DEPLOYMENT
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When in Doubt, Use Concrete

Where a Rock Would Do the Job, You Can Use Concrete Instead

BY CHARLES S. FITCH

Sing along now to the tune of "Smoke Gets in Your Eyes":

Dust gets in your eyes, it must be concrete,
add some water, watch the flies …
Dust gets in your eyes, we'll need rebar,
mix and pour to your delight
Dust gets in your eyes …

As you know, many structural elements like wire rope (the usual tower guy cable) only have strength in tension. Concrete has an opposite characteristic. It has its greatest strength in compression.

TECHTIPS

The general formula for concrete is, by volume, one part cement, two parts sand and three parts aggregate (selected small rocks of varying sizes). Water is added to these dry components to facilitate a homogenous mixing and to activate the adhesive quality of the cement. Modern cement actually is a smooth mortar made of a pasty, hydrate lime.

Cement and related concrete formulations have had two great historic periods of use, ancient Rome around the time of Christ and after about 1750 through the present.

In the ancient world most professions were essentially "technique" trades. The relatively limited knowledge on a subject (normally practical, normally useful) would be transferred in a disciplined fashion as one would progress over a lifetime from neophyte/intern/apprentice through journeyman and finally to master. The most important, critical information would only be given to you in secret on your assent to being a master. Sort of like Jedi Knight training.

In ancient Rome, architects (the word comes from "master builder") looked to the professions of stonecutting, masonry, etc. to build the great roads, viaducts and buildings of that glorious time.

History perceives that the masonry masters around 150 A.D. too closely guarded the formula for cement and that it was "lost" for general use thereafter. The last great building of that Roman period was Hadrian's Villa, which had a notable cement (with some additives) roof span. After that, cement seems to have been lost through the ages.

That is, until modern times, when by accident, the baking of limestone to make a mortar paste was stumbled upon in England. When water was added to this "new" brew, hydrolization would occur, resulting in a hard solid with adhesive qualities.

Hydrolization is that wonderful ionic action in which the cement, when wetted, bonds together the various elements of concrete — sand, aggregate, etc. — making artificial rock.

Most modern cement is of the Portland variety, developed in 1824 by Joseph Aspdin of England who burned fine caulk with finely divided clay in a lime kiln until the carbon dioxide was driven off. The sintered result was ground further until one had the very fine powder that you see in the cement bag you buy at Home Depot or Ace Hardware Store.

The distinguished Mr. Aspdin gave his invention its name, Portland, because he though the color looked a lot like the rocks of the Portland Cliffs in England. These cliffs look nothing like the white cliffs of Dover.

The construction crew has installed the first row of tubes for pouring concrete piers to create a level base for a pre-cast concrete transmitter building. The vertical rebar in the tubes actually is attached to the ledge via grouted holes.

Successful concrete work is divided into two important parts: preparing the concrete mix, and applying it. Great concrete can be all but wasted if installed improperly.

PROBLEM SPOTS

The two biggest errors are allowing the components of the mix to become separated and/or too dry or wet, and allowing air pockets and/or voids to be left in the final pour.

These circumstances can cause a severe reduction in the strength and longevity of the concrete, if not to cause the structure (think the anchors of your tower) to fail.

We mentioned that concrete on its own has little strength in tension so how does one achieve strength in both compression and tension? By reinforcement.

NAB RADIO SHOW

PC-XY CONTROLS WHEATNET-IP

Wheatstone's PC-XY software application is designed to provide complete XY control of a Wheatnet-IP audio source and destination matrix.

The PC-XY application, shown, which is sold with a site license, installs onto existing PCs; no additional hardware is required. Key features include eight programmable hot buttons for frequently needed sources and/or salvos, low overhead on the PC, plus configurable signal visibility. PC-XY is useful for remote control of signal routing; the company says that when it coupled with the Wheatnet-IP audio driver, it makes a great source selection and monitoring tool for program directors, general managers, sales or anywhere audio monitoring is needed and a PC is available.

The company also showed the new Vorsis M2 Audio Processor, which targets broadcast and professional audio applications with dual independent processing channels that take the place of two conventional microphone processors.

Among the M2's features are twin high-grade, low-noise, wide-bandwidth microphone preamplifiers, phantom power, Vorsis-designed audio processing algorithms and analog and digital outputs.

The M2 is controlled utilizing a well-designed graphical user interface equipped with three user levels. No user controls are on the front, making M2 a suitable voice processor for air studio applications.

Info: www.wheatstone.com

HARRIS SHAKES HANDS WITH AUTOMATION VENDORS

Harris signed business agreements with several radio software and automation vendors, with the goal of extending digital studio workflow options for broadcasters.

"The relationships will allow vendors to interface their radio automation systems to the Harris PR&E VMQuadra, the latest entry in the company's range of PR&E VistaMax audio management systems," it stated.

VMQuadra is an interface between VistaMax digital studio networks and radio automation systems; Harris said it was designed with automation vendors "to increase functionality, reduce complexity and create new workflow options to and from automation servers, digital audio workstations and satellite systems."

Harris said it will collaborate with automation vendors including RCS, Broadcast Electronics (AudioVault), ENCO Systems, WideOrbit, OMT Technologies, BSI, Pristine Systems and WireReady.

Each VMQuadra interfaces with up to four automation computers and connects via Cat-5 to VistaMax audio management system frames. The systems provides greater flexibility in audio source and destination connectivity, and minimizes the complexity of the distributed computer network and the number of audio channels required for each automation computer, Harris states. The elimination of audio cards for automation saves money for the user.

Info: www.broadcast.harris.com

IT'S V4.0 FOR IMEDIATOUCH

The new iMediaTouch V4.0 contains features that the company said is based on collaboration with its customers and technology partners.

In addition to a new on-air graphical user interface, iMediaTouch contains features such as a quick scroll "next hour button," ability to change the colors of the hot keys, color-coded display in Full Log, more dynamic on-the-fly adjustable segue editor, ability to add your station logo, production-style enhanced library search, drag-n-drop from the library onto the hot keys page and other improvements.

You can preview the new version in a video on the company Web site, or on YouTube by typing in iMediaTouch.

Info: www.imediatouch.com

World Radio History

The same way that many have taken credit for wire rope, many lay claim to the premier use of reinforcement in concrete. One of the first quotable instances was by Joseph Monier of France. He reinforced William Wand's flower pots with wire, ushering in the idea of iron reinforcing bars known now in the vernacular as rebar.

Shortly thereafter Gustave Eiffel started using rebar in the footings for his Paris tower, stimulating contemporaries to make reinforcement rigor du jure. Eiffel also pioneered the mathematical analysis of concrete and steel structures as well about the turn of the last century.

Today rebar normally is deformed steel with its size, type, connection(s) and placement specified by the design engineer. When concrete is used for floor decking and similar applications, fiberglass rebar resembling cut grass is often used in the mix to stiffen the final deck yet providing sufficient flex to ensure little deterioration.

Over these intervening hundred years, concrete technology has matured and we have a gamut of techniques including exotic admixtures (additional components that change the character of the concrete such as faster drying, better yield strengths, etc.).

Admixtures have been with us from the appearance of cement and concrete. The Romans added animal fat, milk and blood as admixtures to add color, hardening, increase durability, etc.

Shrinkage also is a problem with concrete as there is a reduction in volume when it dries. A modern solution is to use epoxy as part of the mix. In Roman times they used horsehair to reduce this problem.

Special mixtures of concrete can be pumped to elevations above 10 floors from the street. The ability to pump concrete is helpful especially when you have to pour anchors across several hundred feet of swampy transmitter site.

One wonderful aspect of concrete worth noting is that it *will* dry under water if the install is executed properly. This quality is appreciated when installing bases and anchors in that swampy site.

One of my first professors pointed out that the least expensive building material by strength, durability, diversity of application, plasticity in form, coverage, etc. was concrete. When in doubt, when you can and especially when money is tight: Use concrete.

He also pointed out the least expensive building material for exterior coverage was roof shingles. But that's another story.

The accompanying box offers a selection of tips on working with concrete. We have assembled a more detailed discussion of such tips online. Visit *http://radioworld.com/article/89104*.

PRACTICAL CONCRETE

For a detailed discussion by the author of tips on working with concrete, see http://radioworld.com/article/89104.

Here is a sampling of tips from that article.

- Make certain you know the total volume of concrete you'll need. Since concrete does not "splice" very well, you should make all complete "pours" in a single session. Suggestion: plan to have 110 percent of the volume you think you need.
- On a single project, once you get beyond a few 50 pound bags of concrete, you'll want to mix this volume in a powered concrete mixer.
- A full 1/3 yard load requires more than 15 bags of concrete of 50 pounds each. Make certain that the delivery truck places those bags as close to the mixer — and the mixer as close to the pour — as possible.
- Once you get beyond the practical limits of mixing concrete rigorously by hand, "ready mix" concrete becomes cost-effective.
- For certain small projects, a cost-effective alternative is to buy "odd yards," left over from someone else's pour nearby.
- On important pours, an on-site test is used called the "slump test."
- It is best never to pour below freezing or above 95 degrees F.
- Once you start pouring from the truck, do not rush the pour, accelerate the flow or let the concrete splash into the form(s).
- Always use *domestic* source specification-grade rebar in size, pattern and spacing that satisfies the load calculations.
- In applications such as a generator slab, pedestrian-ready mix or bag concrete might not have enough load-bearing strength. Higher strengths are available but must be specially ordered and normally require special attention during installation.
- A great wear preventative once the concrete is dry is a protective coating such as RustOleum concrete coat.

World Radio History

Take Off That Career Blindfold

PROMO POWER

Mark Lapidus

Read more Promo Power articles online at radioworld.com

During my tenure in rock radio, I observed a pattern of behavior common among newly minted rock stars: When they were at the beginning of their career with their first hit song, few of them conceived of the possibility that what they were experiencing actually was the peak of their career.

This naïve perspective was fueled by record labels, friends and groupies, who encouraged lavish vacations, purchases of expensive bling, stays at five-star hotels, meals at the best restaurants, transportation by limo — not to mention no-holds-barred, hedonistic partying.

Having watched this scene numerous times, I couldn't help wanting to say something to those I interviewed, or had the chance to spend a small amount of time with at a concert.

As you might expect, the few times I attempted a conversation about the subject, I failed.

A YOUTH BUSINESS

Why am I telling you this? Because it's easier to hear about the blinders other people wear than the ones we put on ourselves.

This is a wake-up call to those who believe they will have the same job in radio for their entire career.

How many air personalities are employed after age 40? Sure, you know a couple, but they are the exception; and now with fewer jobs, there are fewer of them.

Radio has long been a youth business, so for most people who are on the air, it's vital to find other careers to age into.

Law school at night? Public relations? Real estate? Graphic design? If voice-overs is your answer, you're about 10 years too late to that party. The market is glutted with great voices who have high-end production skills.

Note to personalities making exceptional salaries: Your run eventually will end. Your audience will age and management will challenge your relevance. Maybe a new PD won't like you or your sales department won't be able to generate the money it takes to make your ratings valuable.

Any or all of those things are enough to lock you out of the control room. Are you putting away enough of your big salary over the years that your financial future won't be a concern? I've seen guys who made over $200k a year live up to or beyond their means and find themselves out of work with small savings and spouses with big expectations.

Sales people are often under the misperception that they will be hired right away to sell any product just because they can sell radio.

I've heard, "If I can sell air, I can sell anything" so often that I can almost predict when someone's going to say it.

Reality check: Without experience in selling a specific commodity — like medical equipment — it's a challenge to break into a new field selling tangible products. Prepare the way through making contacts and learning as much as you can about the specific product or area you can see yourself selling.

PROTECT THE FUTURE

As I've stated many times in this column, the smartest (and sadly the most unrecognized) employee at a station or cluster is the engineer.

If you're the resident genius, have you protected your future by becoming fluent in IT or a related field, so that if your broadcast path evaporates due to continued consolidation, lack of funding or a decision to hire contract engineers, you have an out? A neighbor's son, fresh out of college with an IT degree and Microsoft certification, recently nailed his first job for $55k.

Is there a field in which you can work part-time, perhaps evenings or weekends, where you can learn what you might enjoy doing beyond radio? Discuss with family and friends and make a list. It's a lot easier to find part-time work these days than trying to find a full-time position.

Please permit me now to talk you off the ledge. If you have a job in radio that you love and it pays well, I am not suggesting you make a radical move today, or even tomorrow.

Stay on the radio ride for as long as you can, but do so intelligently by planning your career moves. If you want to remain in radio for the next few decades, it may mean moving to another town — again and again. It may mean changing roles in the business — like going from air talent to program director. It may be moving from commercial broadcasting to non-commercial broadcasting.

But it may also mean eventually moving out of the industry and into a new life. Take control of your future by giving yourself options. In the words of the famous biblical sage Hillel, "If I am not for myself, who will be? And if not now, when?"

The author is president of Lapidus Media. Write him at marklapidus@verizon.net. *Comment on this or any article to* radioworld@nbmedia.com.

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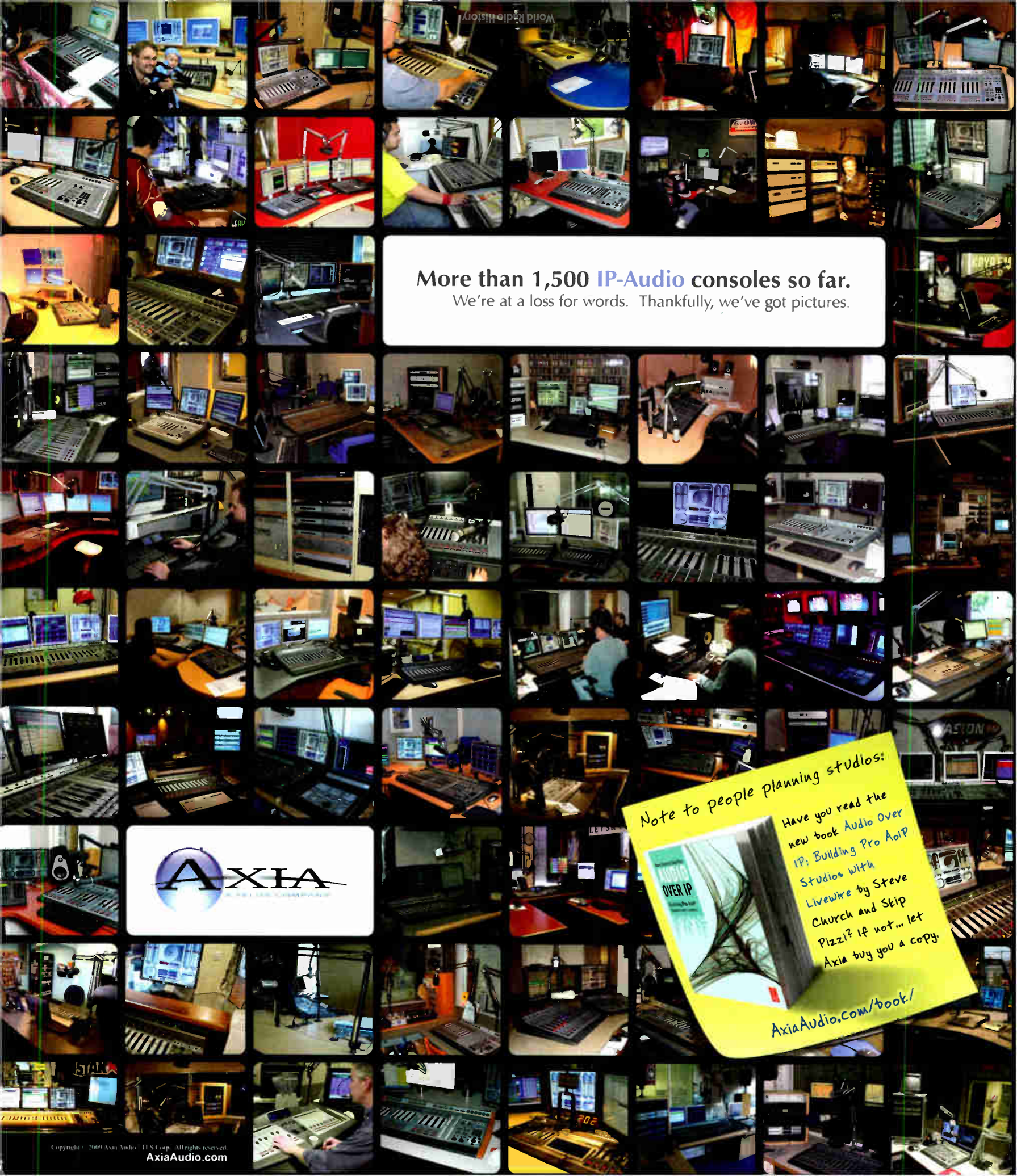
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Pull Up a Chair: Baseball and Vin Scully

Smith's Bio Is No Shocker But Will Warm a Fan's Winter Nights

BY PETER KING

As World Series season concludes and we baseball fans go into winter hibernation, what might we better take with us into our caves than a good book about a baseball broadcast legend?

Last New Year's night, the love of my life (a fellow radio reporter and baseball junkie) and I watched as Major League Baseball's MLB Network debuted by airing the long-lost kinescope of Don Larsen's 1956 World Series perfect game, called on NBC Television by the Yankees' Mel Allen and the Dodgers' Vin Scully.

Hearing Allen call the first part of the game, solo, was a treat. But as Scully called the second part, also on his own, she and I sat there, mouths open, thinking the same thing at the same time: "My God. He sounds exactly the same as he does today!"

Call it comfort food for the ear; but whenever I hear Vin Scully, it's like listening to an old friend tell you "Hey, come on over. Pull up a chair. Let me tell you a story."

Hence the title of Curt Smith's 2009 book, "Pull Up a Chair: The Vin Scully Story."

Smith's been writing about baseball and broadcasting for decades; for Scully fans, his book may be a dream come true.

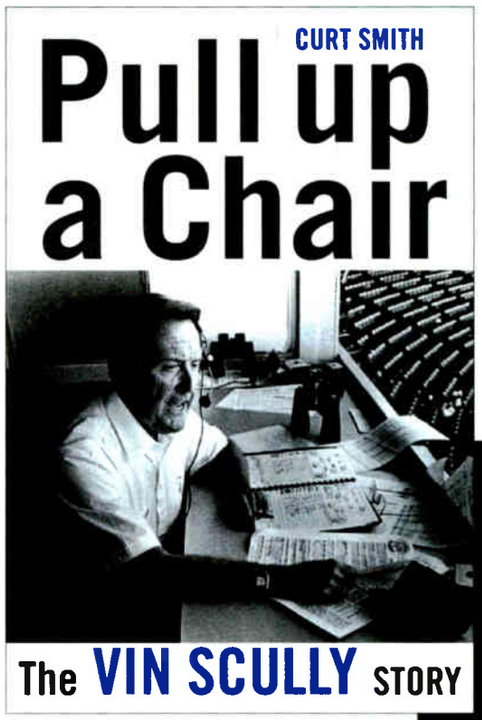
Disclaimer: Smith is a friend of mine, and two of my stories about Scully appear in this book.

First, let me tell you about what this book isn't. It's not a tell-all tale with deep, dark, inside personal tales. We learn about Scully's upbringing and how he grew into baseball broadcasting, but Smith glosses over many personal details of the Dodger years, for example, barely mentioning that Scully was widowed at age 35 and was left to raise three young children, or that his son later died in a helicopter crash. Both are mentioned more as asides rather than as central to the man's life. We learn that Scully decided after his wife's death to cut back on his exhaustive workload, but we have no insight into whether he agonized about having been away from home so much before, or how the death of his son affected him. I was disappointed but not surprised to come away with little feeling for Scully, human being. It's not *that* kind of book.

But if you're looking for a detailed account of Scully's professional life and achievements, especially his nearly 60 years with the Dodgers, this is it.

SMOOTH

Every time I find myself watching or listening to a Dodger game, I ask a simple question: Does he ever make a mistake? The man is smooth. I think I could count the number of mistakes I've heard on, perhaps, half a hand. Of course, he is human, and Smith recounts Scully bloopers from very early in his career. They may be the last mistakes he made.



Recommended reading for baseball/ broadcast fans left in the cold by the end of another season.

Scully works alone. Some of his innings are simulcast on Dodgers radio and TV. If you're watching the TV side, you can tell which innings are and aren't simulcast by the amount of detail he provides. Except for network gigs, he's insisted on working alone because he feels it gives him a better bond with his audience. I believe he is the last baseball announcer to fly solo in the majors.

Vin Scully paints a word picture like no other broadcaster. The consummate radio guy.

But his style is more than that. He weaves through multiple plot lines during a Dodger game, telling stories without ever detracting from what happens on the field. When I think of master radio storytellers, I think of Jean Shepherd, Paul Harvey and Vin Scully — all tied for first. Engaging, interesting, eloquent, funny, clever. And their specialty? Speak to

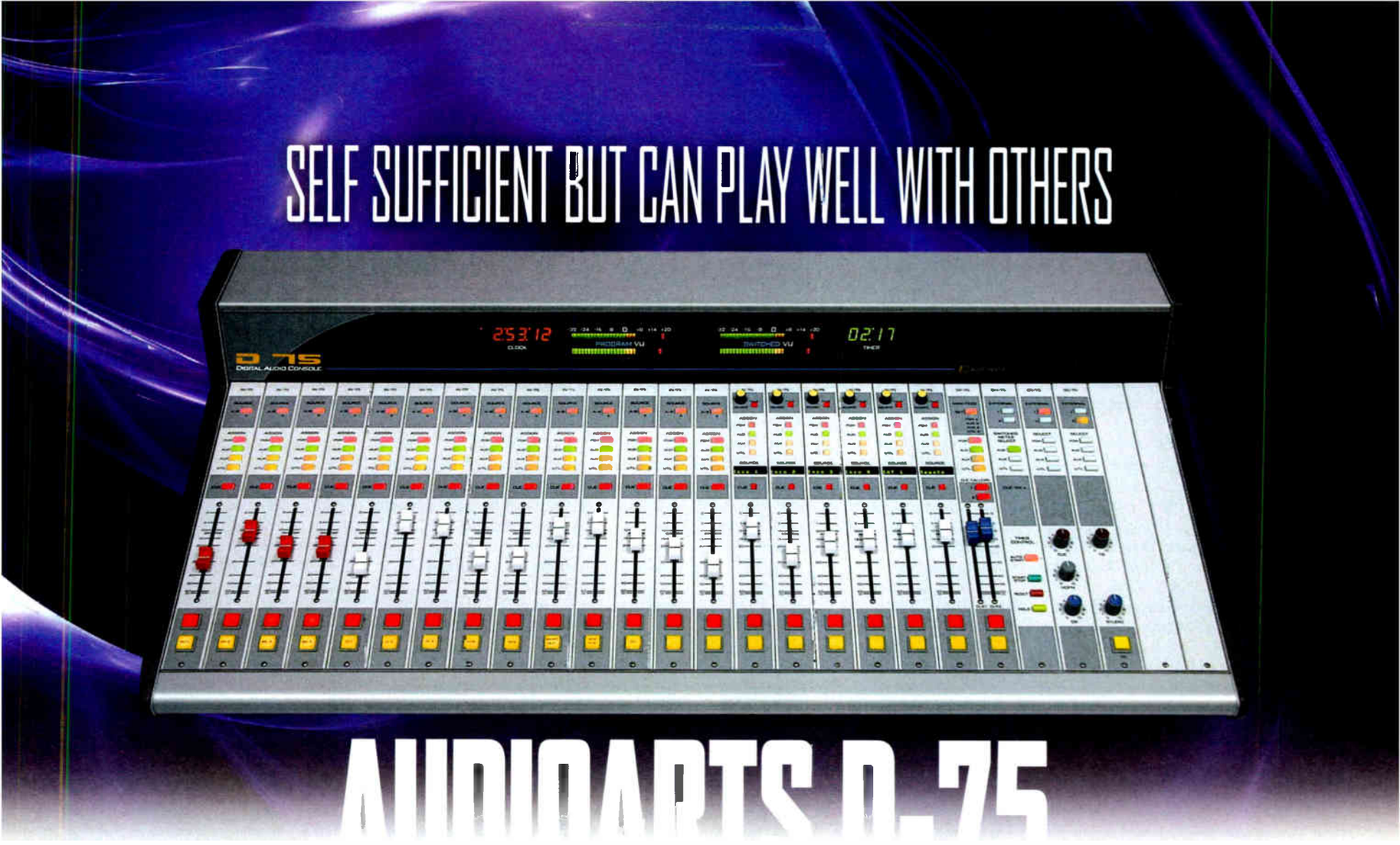
(continued on page 30)

Author Curt Smith

PRODUCTS & SERVICES SHOWCASE

World Radio History

SELF SUFFICIENT BUT CAN PLAY WELL WITH OTHERS



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When we conceived the D-75, the idea was to make it digital, affordable and networkable. And it's incredible just how fine it turned out. We're proud of the D-75 and it's ability to play well with others. We think you're going to find it pretty incredible, too.

D-75 major market features:

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- **26 slot frame with 20 input modules**
- **Input channel A/B source select**
- **Optional dual phone mix-minus module**
- **Optional line selector and control modules**
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World Radio History

SCULLY

(continued from page 28)

the listener, one to one.

Others have imitated Scully, literally, like Jon Miller of ESPN and the Giants, and figuratively, by following his example.

Seattle Mariners Hall of Fame broadcaster Dave Niehaus tells Smith that he learned to adopt Scully's "posture of don't cheerlead (for a good team) or make excuses (for a bad one)." Wow, what a concept. Scully knows his audience is the Dodger fan but he always seems to tell the story, straight.

Dodgers fans might be shocked to know that Scully, a native New Yorker, grew up a Giants fan.

It's widely known that Hall of Famer Red Barber hired Scully for CBS Radio and later the Brooklyn Dodgers. Barber didn't necessarily teach him how to broadcast, writes Smith in Scully's voice, but did teach him about work ethic and attitude.

What you may not know is that Scully was hired in 1950 to replace another Hall of Famer, Ernie Harwell, who went to the New York Giants, Baltimore Orioles and later, most famously, the Detroit Tigers. Harwell mentored him through his early baseball years.

THE DREAM

In a 1952 game, Scully called a home run by a childhood friend from the Bronx. Larry Miggins and Scully had told each other of their ambitions, respectively, to play and broadcast major league baseball, wondering about the odds of either of them realizing the dream. Scully broadcast one of Miggins two big-league homers.

During the late 1950s and early '60s in Los Angeles, Scully probably had more to do with the boom in transistor radio sales than anyone else in the business (younger readers, ask mom and dad about transistor radios).

Dodgers fans brought radios to the game at the old Coliseum, because the seats were far from the action and they needed to know what was going on. When Dodger Stadium opened in 1962, they still brought their radios to the game.

Smith says he worked on this book, in some ways, for decades. He'd written about Scully in previous books, including "Voices of Summer," in which he ranks Scully as the best baseball play-by-play broadcaster of all time. Few would disagree.

The author says he called Scully several years ago to tell him about this book; he says that his subject was "polite and graceful" but insisted he'd never write his own biography or cooperate with publishing an "authorized" version of his life. Smith says he didn't ask for new interviews — "I assumed the answer would be 'no.' I took him at his word" — but Smith has interviewed Scully many times over the years and while some of the material here has appeared in previous Smith books, "Pull Up a Chair" is not a rehash of published material.

Most of the book is celebratory, but there are some black marks, particularly Scully's dismay at having to share the World Series microphones with NBC's Curt Gowdy in the 1966 classic.

COLD SHOULDER

Previously, a "voice" from each participating team had worked the booth, but starting in '66, NBC reserved the right to showcase its own announcer, and the home team voices would do only half the play by play on TV (providing color for the rest of the game), while the visiting team's announcer would work NBC Radio.

Scully hated the new rules, gave Gowdy the cold shoulder and didn't broadcast another Series until 1974, the next time the Dodgers made it. When ABC and NBC split the baseball contract starting with the 1977 World Series, they completely shut out the home-team announcers from Series broadcasts.

Scully would have the last laugh, in a way, returning to the network scene, but teamed with partners all the way: Joe Garagiola on NBC's "Game of the Week" from 1983–89 (three World Series) and Sparky Anderson and others on 14 CBS Radio World Series 'casts during the '70s through the '90s.

There were also non-baseball activities, mostly TV; game shows ("It Takes Two" on NBC), a talk show on CBS, golf and the NFL (on CBS, where he lost out to Pat Summerall on doing the Super Bowl) as well as an almost-offer to do ABC's Monday Night Football at a time when he'd decided he was spending too much time away from home.

For the most part, it's always been about baseball.

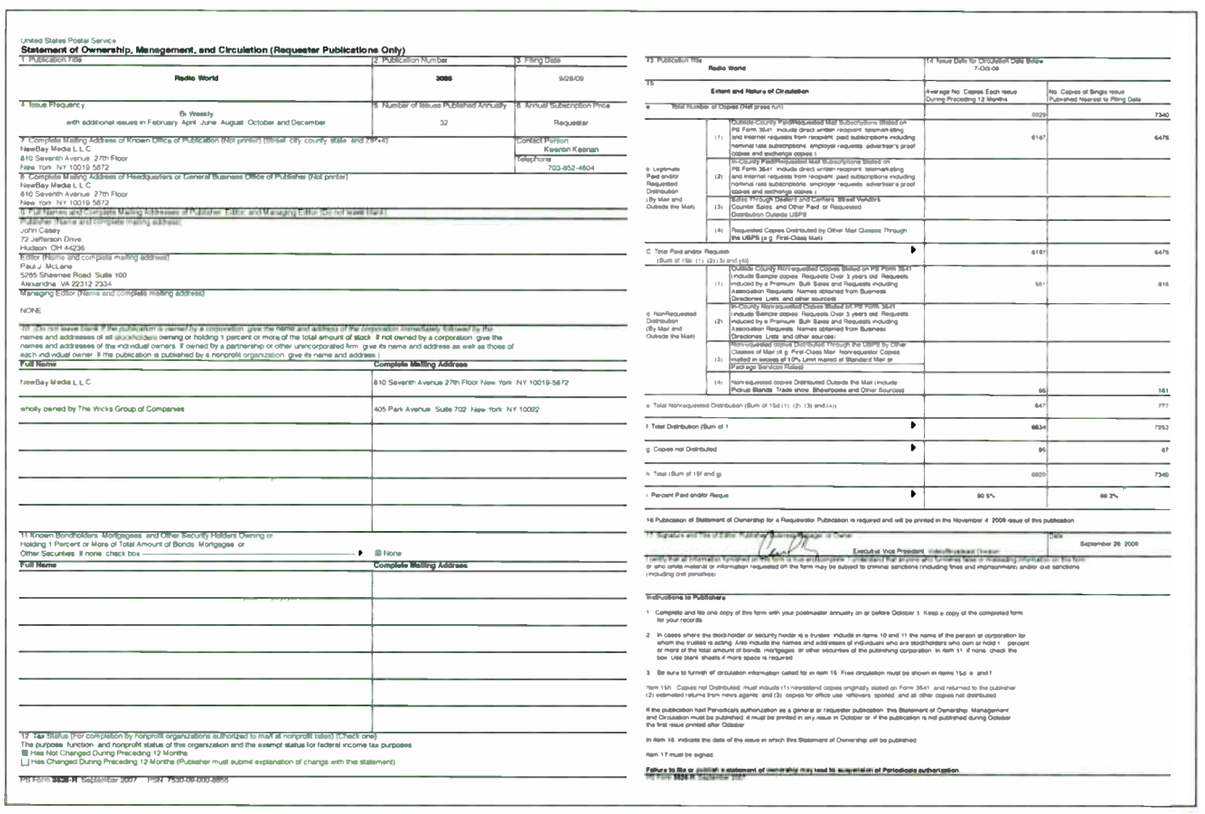
The book, published by Potomac Books, retails for $29.95 and was available online at press time for around $19.

Compared to Curt Smith's earlier book "The Voice: Mel Allen's Untold Story," this is an easier read. Smith is as literary in his written style as is Scully with the spoken word, though in the Allen book he got lost in his own prose and multiple metaphors that only confused some readers.

This time he hasn't tried to outdo himself, and he hit's a home run.

As much as I wish this has been a more personal book, it's Smith's book, not mine, and he has clearly accomplished what he set out to do. Pull up a chair and enjoy some great off-season reading.

Peter King is a staff correspondent for CBS News Radio based in Orlando and the Kennedy Space Center. He's a lifetime Met fan. Contact him at pkingnews@aol.com.



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16. Publication of Statement of Ownership for a Requester Publication is required and will be printed in the November 4, 2009 issue of this publication.

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PS Form 3526-R, September 2007

PEOPLENEWS

Tim Thorsteinson, president of **Harris Broadcast Communications**, retired. The company said it had begun the process of finding a successor. Thorsteinson joined Harris as part of the 2005 acquisition of Leitch Technology. Prior to Leitch he was VP of Grass Valley products for Thomson Broadcast & Media Solutions and president and CEO of the Grass Valley Group. He also worked for Tektronix and National Semiconductor Corp.

Dr. David Trainor, engineering manager for **APTX**, was named chief technology officer. Trainor was also elected to the APTX board of directors.

Edward Czarnecki, executive VP of SpectraRep, was elected to the **EAS-CAP Industry Group**, which he helped found. The organization is made up of companies involved in the Emergency Alert System; its aim is to promote advanced EAS capabilities based on the XML-based data format Common Alerting Protocol.

Coleman Insights promoted **Bill Fugina** to director of technology; he's in charge of development of internal and client software as well as technology initiatives. He was a senior applications developer and was involved in creation of client software products including *pc*FACT and Category Architect. Fugina is a former VP of technical operations at ClearCom Computing and technical engineer at Radio Computing Services (RCS). He has worked at WFUV(FM) in New York and done contract work for NPR.

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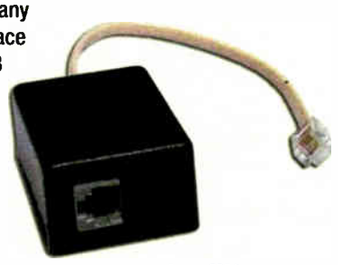

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World Radio History

NEW EAS? NOT FOR ME

Every time modernization is adopted, it costs an absolute fortune; but the "modern equipment" simply fails more often.

READER'SFORUM

This EAS modernization ("You Need Not Fear the CAP" by Jerry LeBow, Aug. 12) is a joke, something the FCC has been sold on by suppliers.

This list grows every year: Conelrad to EBS to EAS, AM stereo, HD Radio, digital from analog; it's all baloney, simply hype at the owners' expense.

This whole EAS situation can be handled simply by using the NWS system already in place. The $40 weather radios being sold now will analyze information, determine what information you want based on preprogramming and deliver great audio quality, once again for $40. But no, manufacturers want us to spend three to four thousand dollars on junk.

During Hurricane Katrina my little station ran circles around the big stations, gathering information and delivering information, all without a failed-state EAS.

I don't buy the sales pitch. The basic problem with EAS is simple: It's too complicated, and the primary stations fail to deliver information.

The new EAS will fail as the old EAS has.

Harry Hoyler
KKAY(AM)
General Manager
White Castle, La.

WELL-DONE WORKBENCH

I really enjoyed reading *Workbench* with John Bisset about tower sites ("The Run-Around Can Be a Good Thing," Sept. 23).

I've seen many a deal cave over a messy tower site. Even a hint of noncompliance at the main transmission facility gives pause to most buyers that there may be more tangled wires in the deal.

Well done!

Chuck Lontine
Managing Director
Marconi Media Ventures Inc.
Denver

MCDOWELL

(continued from page 34)

unstable legal foundation. Anyone who doubts this should just read Justice Thomas' concurrence in the *Fox* case.

I hope that the commission bears that in mind in the coming months, when we may face increasing calls — in the context of our next media ownership review — to act on various "localism" proposals, such as mandates requiring community advisory boards and shortened license terms.

In the same vein, our "Enhanced Disclosure" form for TV stations remains hung up, thankfully, at the Office of Management and Budget, where broadcasters made the case that the complex form is so overly burdensome that it violates government paperwork laws.

Radio licensees should be grateful that the TV folks were in the cross-hairs on the form first, but it is quite possible that all broadcasters eventually will be filling it out and posting it on station Web sites.

Keep in mind that some have estimated that the form would require each broadcaster to hire up to two more employees to do nothing all day but fill out the form. Back in 2007, it was reported that one advocate of the reporting form retorted, "But that's a good thing. That's job creation."

Anyway, I hope that the commission reconsiders the need for the enhanced disclosure form and sends it to "government-form Heaven" as soon as possible.

NO SPEECH CONTROL

Let me close by touching on another issue that I know concerns many NRB members: the possible return of the Fairness Doctrine.

Your association for years has provided thoughtful analysis on the legal and policy problems inherent in what some call the "Censorship Doctrine" — but which I just call "the Doctrine," to be fair.

The Obama administration and Chairman Genachowski have on several occasions stated that they are not interested in reviving the Doctrine. That is good to hear, but I will continue to speak out every now and then about my concern that a series of new broadcast regulations, operating in tandem, could achieve the old Doctrine's "viewpoint balancing" objective through a different route.

If, for instance, the commission were to require stations to fill out content-prescriptive disclosure forms that hinted at the government's programming preference, then coupled that action with shorter license terms and mandated community advisory boards empowered to shape programming decisions, wouldn't we be back to where we were before 1987?

Political speech control by big government is something I will always fight to prevent.

Robert M. McDowell was appointed to a seat on the Federal Communications Commission by President George W. Bush. When he was reappointed this year, he became the first Republican appointed to an independent agency by President Barack Obama.

Comment on this or any story. E-mail radioworld@nbmedia.com *with "Letter to the Editor" in the subject line.*

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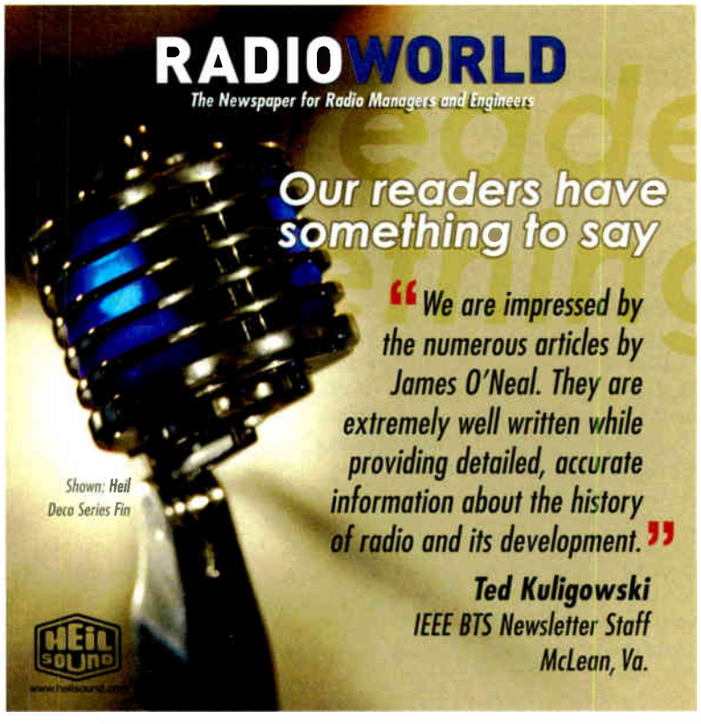

World Radio History

OPINION

McDowell on Forms, *Fox* and 'Fairness'

Commissioner Comments at NRB Event On Policy Concerns of 'Timeless' Interest

FCC Commissioner Robert M. McDowell spoke in September about broadcast policy matters to the National Religious Broadcasters' Capitol Hill Media Summit in Washington.

The FCC has more energy these days as we are now back to our full five-member team. The bulk of the commission's

NEWSMAKER

resources these days appear to be devoted to net neutrality and the crafting of the congressionally mandated National Broadband Plan. Congress has given us until Feb. 17, 2010 — what is it about that day in February? — to deliver a document meant to guide policymakers on broadband investment, adoption and deployment issues for years to come.

Of course, broadcasters should pay attention to the greater broadband debate. Your technology is a major sector within the greater world of wireless, and although no one can forecast the future with perfect assurance, it seems likely that the demand for high-speed wireless audio, video and data services — singly or mixed together in various combinations — will only increase.

That plainly poses risks for long-term viability of the traditional broadcast business model, but it also offers opportunities.

Religious broadcasters have been among the most lively experimenters and content providers on the Web, and I have a hunch that same spirit of innovation in advancing your mission will continue as broadband evolves.

Some media-related concerns are timeless, however, and the commission soon will venture deeper into one of our most important — and, to be honest, most challenging — policy areas: children's media.

MORE AND WIDER FILTERING?

At the end of August, we delivered a lengthy report to Congress under the Child Safe Viewing Act. That law required us to gather information about the existence and usefulness of "advanced blocking technologies" that allow parents to shield their children from inappropriate video and audio content distributed across a wide range of electronic systems and devices.

Our 90-page report provides an overview of filtering technologies that have proliferated across broadcasting, cable, satellite, wireless and Internet platforms. It does not, however, offer qualitative judgments by the commission on how well the existing technologies satisfy the demands of parents and needs of children.

That step could be coming next. Some lawmakers and some commenters in the proceeding have asked us to make recommendations for improving upon today's filtering options. I hear that we soon will launch a new inquiry that may ask pointed questions about why some parental-control mechanisms aren't attracting much usage by parents and what, if anything, the government can or should do about that.

As the father of three young children, I am personally quite interested in the availability and usefulness of filtering technologies. As a regulator, I want to make sure that whatever we do is faithful to Congress' intent and the Supreme Court's view of our action's constitutionality. In short, it's awfully nice to be upheld on appeal.

The best-known filtering technology for television is the V-chip, which works in conjunction with the "TV Parental Guidelines" developed voluntarily by the broadcasting and cable industries. That's the system associated with those icons that pop up in the corner of your screen — "TV-7," "TV-14" and so on, with a bunch of additional letters meant to warn about sexual or violent content.

Commenters such as the Parents Television Council have criticized the implementation of the industry ratings scheme as too lax. Other commenters tell us it is too complicated, confusing and ineffective.

To address that problem, some ask us to consider developing a unified ratings system that could apply across all electronic content, from movies to TV to video games. But that concept seems in tension with another idea that the commission has tentatively embraced in the past, which is to foster TV filtering technology that allows for the use of multiple, differing rating schemes that might better satisfy the needs and demands of individual parents.

In short, as you can tell, historically this has been a challenging area for regulators. Content regulation generally is. Certainly the commission's authority to police broadcast indecency has been challenged repeatedly in recent years, and that is likely to continue.

In April, the Supreme Court upheld the FCC in the *Fox* case, which involved "fleeting expletives" by celebrities at two awards shows. Although that decision addressed only procedural arguments, I am hopeful that the court has provided us enough certainty to move forward on our massive backlog of more than 1.3 million indecency complaints, many of which are older than some of my children.

But the legal battle in *Fox* is not over yet. The April decision did not resolve the First Amendment issues, which have gone back down to the lower appellate court to consider. Observers expect the dispute to end up back in front of the Supreme Court, probably in about two years' time.

DOING OUR JOB

Let me digress for a moment to emphasize, however, that the FCC should not delay adjudicating our mountain of indecency cases because we are facing appeals. We are *always* facing appeals. If we held up every bit of commission business affected by litigation, we would never decide anything.

Whether you are a broadcaster or complaining consumer, I hope that you agree that acting on indecency cases is something we are paid by the American taxpayers to do. It is our job, and we should do it.

During my second week on the job, in June of 2006, I was invited to attend the bill-signing ceremony where President Bush signed into law legislation that had passed Congress with a huge majority — a huge bipartisan majority.

That bill increased ten-fold the fines to be imposed on broadcasters for airing indecent content. It didn't change the standard by which indecent broadcasts should be judged, but it was a clear signal from the directly elected representatives of the American people that the FCC should do its job and make some tough decisions. And we should, as a matter of good government. I welcome all guidance from the courts, but there is no reason for further delay.

If the case does return to the high court, it's possible that the decision could have implications that reach beyond broadcast indecency. As we move forward, all of our broadcast content regulations sit on an increasingly

(continued on page 33)

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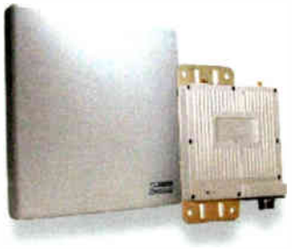

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