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'Enough!'

Barry McLarnon retains strong feelings about the problems of IBOC on AM.

Page 5

In the Spirit of Timothy

International religious broadcaster HCJB Global salutes the Hollingers.

Page 36



Sylvia and Paul Hollinger, right, with Ron

Radio World

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The Newspaper for Radio Managers and Engineers

December 5, 2007

INSIDE

NEWS & ENGINEERING

▼ Ownership relaxation? There's nothing relaxing about it.

Page 3

▼ Video for radio: How the NewTek TriCaster might help your Web site.

Page 18



▼ Radio engineers in Charlotte find themselves working in boom times.

Page 20

▼ David Hollyer shares tales from the old War. Want some jam with that?

Page 26

▼ The lowdown on RF exposure limits.



Page 28

Rochester Station Says IBOC Interferes

WYSL Gripes About WBZ in First Official AM Digital Complaint

by Leslie Stimson

AVON, N.Y. In what is thought to be the first AM nighttime IBOC interference complaint filed with the FCC, Radio Livingston Ltd., licensee of WYSL in Upstate New York, claims that adjacent-channel IBOC noise from WBZ in Boston is interfering with its daytime and nighttime signals.

Observers are interested in the outcome of this case, which presents a face-off between a small standalone AM owner vocally opposed to IBOC on one side of the complaint, against a group-owned, big-market station owned by IBOC pioneer CBS Radio on the other.

Central to this case is whether the alleged interference is within WYSL's protected contour; the station says it is. WBZ isn't commenting publicly on the case.

See WYSL, page 12 ▶

Radio in 2017 Explored

With the Year Drawing to a Close, We Ask: What Will Radio Be Like in a Decade?

by Randy J. Stine

Imagine yourself transported 10 years into the shiny, high-tech radio industry of the future.

Surely some of the grittiness of an industry rooted in blue-collar beginnings will remain. However, many experts in the industry envision a sharp contrast between radio's future and what we're accustomed to.

Predictions by some people contacted for this article range from exponential revenue growth due to developments in HD Radio to the presence of thousands of additional low-power FM radio stations.

Other industry watchers remain worried about radio's future survival in the face of additional entertainment sources like satellite radio, MP3 players, webcasting and the eventual saturation of WiFi and WiMax.

Forecasts by some in this era of rapid technological change, including Bridge Ratings and its "Digital Media Growth 2020" forecast, show Internet radio growth booming and an increase in the number of cell phone audio listeners in the next few years.

See FUTURE, page 10 ▶

GM JOURNAL

'Web time': For an hourly rate of \$1,000, advertisers can buy time on the Grapevine Talk Radio Network.

Page 40

AIRING IT OUT

▼ Commentary from Wilfred Cooper, Jerry Puffer, John Arndt, David Noble, John Schneider, Phil Boersma, Kent Lankford, Edgar Reihl and Rusty Hodge.

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◆ NEWS WATCH ◆

Radio Estimates Gloomy

Some Wall Street analysts revised financial projections for radio for the year, following news from RAB in November that September's U.S. commercial radio revenues fell 7 percent.

In a note to clients titled "Sept. Radio MUCH Uglier Than Expected," Wachovia analyst Marci Ryvicker said due to the trend, which Wachovia believes continued into October, her new projections "are -3 percent and -1.7 percent for Q4 and the full year, respectively."

At Banc of America, Jonathan Jacoby revised his fourth-quarter local radio ad revenue estimates to a drop of 3 percent, from a previously-projected decline of 1 percent, believing weakness in local markets will continue through Q4, while some buys in large markets wait for PPM to be rolled out before placing ad orders.

Dolby to Acquire Coding Technologies

SAN FRANCISCO How valuable is audio compression? In the case of Dolby Labs, about \$250 million.

That's the price tag Dolby Laboratories will pay to acquire Coding Technologies, a Swedish company that provides audio compression technologies.

XM uses Coding's aacPlus algorithm; Ibiquity Digital adopted its SBR technology for HD Radio; in 2006 Coding Technologies and Orban brought MPEG-4 aacPlus audio to the Windows Media Player. The company also has discussed research into 5.1 surround for HD Radio applications.

Dolby President/CEO Bill Jasper said the deal means Dolby "will be better positioned to support our customers as they continue to move into more bandwidth-constrained delivery methods such as

mobile networks and the Internet."

The acquisition had not closed at the time of announcement in November.

Sirius, XM Give FCC More Details

WASHINGTON Experts were divided over whether a November request from the FCC for more information from the companies meant it was close to making a decision on their merger.

The questionnaires could indicate areas where the agency might seek concessions should it approve the XM/Sirius deal.

The FCC sought details on channel duplication, programming distribution and deals with talent and audience demographics. The agency also asked for documents relating to agreements with retailers, including commissions and subsidies for receivers.

The FCC also wanted documentation on the agreements between the satcasters to develop an interoperable radio and the location and technical operating details of terrestrial repeaters.

"This is the next step in the regulatory process," said XM and Sirius in a statement. Sirius and XM remained hopeful the deal would be approved by DOJ and FCC by year-end.

More Than 3,600 NCE Apps Filed

WASHINGTON The FCC said it received more than 3,600 applications during the window for new noncom FM's and major modifications.

The commission opened a 60-day settlement period for parties to resolve technical conflicts between applications. The

See NEWSWATCH, page 14 ▶



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Index

NEWS

Rochester Station Says IBOC Interferes	1
Radio in 2017 Explored	1
NewsWatch	2
Ownership Relaxation Heats Up	3
From the Editor	4
McLarnon: Enough Is Enough	5

FEATURES

Workbench: Walk This Way! LEDs at Work	16
NewTek Tricaster: Video for Radio	18
Charlotte Radio: A Perfect Storm	20
Who's Buying What	20
Polish Channel Launches NetRadio Demo	22
Singing the Buggy-Whip Blues	24
Tales From the Electronic Cold War	26
The Deal With Exposure Limits	28

GM JOURNAL

Vocalo.org: From Web to Broadcast	30
'Dixie' at the End of the Broadcast Day	32
Help Wanted: Director of Fun	34
People News	35
Hollingers Receive HCJB Timothy Award	36
Edwards: Localism Has Been Eviscerated	39
Net Station Sells Web Time to Producers	40

OPINION

Reader's Forum	44-46
AM IBOC in Distress?	46

Ownership Relaxation Heats Up

With Chairman Martin Pushing, Will the Issue Turn Out to Be a Year-End Surprise?

by Leslie Stimson

WASHINGTON The FCC has wrapped up its localism and media ownership hearings. Reports early in November indicated that FCC Chairman Kevin Martin was trying to persuade his colleagues to vote to relax the ownership rules by the end of this month. Later in the month, he revealed his proposal to relax the rule that bans one company from owning a newspaper and, either a TV or radio station in the same market. The relaxation would occur only in top 20 TV Nielsen Designated Market Areas and only under certain criteria.

Cross-ownership would be the only rule affected; not any other limits, including radio ownership caps. Martin said he still hopes to have his colleagues vote on the proposal this month.

Any such changes would be a victory for executives of some media conglomerates, who hadn't expected action this year.

The issue puts the agency at the center of debate between media companies, who view restrictions as unnecessary in an age of a 24/7 news cycle and plethora of media outlets, vs. civil rights, labor, religious and consumer groups who say media companies are already too big and the public doesn't benefit.

works for the commission, not just the chairman."

Martin disputed Adelstein's account, saying new people are now in charge of that task force than when it was started



Photo by Leslie Stimson

Protestors gathered outside the FCC headquarters before the Washington hearing.

possibly resulting in the dismissal of hundreds of applications that have been pending for four years.

Martin says the FCC held hearings around the country, completed numerous studies which it released to the public and has been collecting information on the issue and reviewing that for years. It's



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The Republican chairman faces obstacles within his agency.

Democratic Commissioners Michael Copps and Jonathan Adelstein say that before acting on media ownership, the agency first needs to address localism and

under Chairman Michael K. Powell and that Adelstein had asked to meet with the old staff. Martin suggested Adelstein meet with both old and new staff for that project for a complete update.

Martin recounted the steps he had pro-

time to act, he believes.

Queried after the Oct. 31 localism hearing in Washington by reporters who mentioned congressional opposition to relaxing media ownership rules — opposition led by Sens. Byron Dorgan, D-N.D., Trent Lott, R-Miss., and others — Martin said anytime the commission does anything it runs the risk of a backlash from Congress.

The chairman favors relaxing the ban that prohibits a company from owning both a daily newspaper and either a radio or TV station in one market.

Getting down to it

Although some groups, including NAB and Clear Channel, favor relaxing the local radio ownership limits, it appears that won't happen.

The chairman is trying to accomplish what Powell couldn't, given a firestorm of protest from consumer groups and the public. Three years ago the FCC lost a court challenge to its last attempt to revamp media ownership rules. A federal appeals court said the agency had not properly justified the new rules.

Presumably Martin's attempt would include new information to fend off another court challenge.

See OWNERSHIP, page 8 ►

make broadcasters accountable for improved public service and media coverage of local issues.

They also say the commission should work to remove obstacles to women and minorities owning stations.

Copps and Adelstein are also not pleased at the chairman's decision to fold in localism with the larger media ownership proceeding. That tension spilled out a little when Adelstein said he hadn't been able to meet with the FCC's localism task force and he reminded everyone at the Oct. 31 hearing that "the staff

posed a year ago under the localism umbrella to improve minority and other new entrant access to media ownership, including reviving a version of the minority tax certificate program, eliminating or relaxing rules for LPFMs to increase their numbers. One example is allowing LPFMs stations to be sold, but adopting new rules to ensure that such stations are used for local programming.

Martin proposed allowing AMs to operate on FM translators and capping the number of applications accepted from the 2003 FM translator filing window

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Who's Speaking to the Students?

Thanks to those who wrote, asking if I'm still at RW!

The prior issue contained my column but I left off my usual logo. I guess that's what happens when I print photos instead of text. I used this space recently for pictures from the fall NAB Radio Show.

I haven't gone anywhere; but it's sure nice to know I would be missed!

★ ★ ★

Two years ago I decided RW would present occasional articles profiling young engineers. I was tired of hearing readers and industry leaders insist on the truth of what everyone "knew": that there are no future radio engineers coming into the industry.

Since then we've reported on the developing careers of people like Rob Bertrand, Ben Ary, Andy Mika, Gabe Joseph, Aaron Ishmael, Fred Bennett, Joseph Brannan, Nathan Chervek, Kyria Timmons and Amanda Alexander, in a series written by Ken R. Deutsch.

Even younger folks, though, often express concern about the lack of appeal radio engineering presents to the next generation.

Amanda Alexander lamented that she'd never seen a radio station employee at a school career day. RW contributor Tom Osenkowsky read that and wrote in to offer his view on the challenges involved.

"As a presenter at several career day events — at two high schools, a university with an EE program and at several independent career fairs — I must say I attracted little serious attention," Tom tells me. "Those few who inquired asked the right questions and did show genuine interest."

"The time period in question ranges roughly from 1995 to 2005. I did have a booth at the Maritime Aquarium in Norwalk, Conn., for a few years. I set up a scope connected to a mic mixer, an opened CD player to show how a CD changes speed with changing tracks and some other hands-on visuals.

"Little serious interest was shown by

the attendees — middle and high school students. We were not invited back."

Tom composed handout sheets detailing the various positions in a typical broadcast station, not just on-air work.

"A look at some realities may answer why there is a lack of interest. In one way, Amanda answered her own question. Keeping an antenna field clear of weeds is important, one of the dirty parts of the job. Given the technical knowl-

**Just look at the
new generation
of satellite receivers.
They are computers,
with an RF
front end.**

— Tom Osenkowsky

edge, expertise and experience required for a broadcast engineer, plus the compensation offered, I can understand the lack of interest.

"I faced these challenges when dealing with my authors during the NAB Engineering Handbook Tenth Edition project," continued Osenkowsky, one of the book's associate editors.

"Picture a station with a solid-state transmitter, a tube standby transmitter with satellite receivers, digital automation/audio storage, analog and digital mixing consoles and AM directional array. The technology ranges from the 1930s through the present. One must have RF audio and IT expertise. Quite a challenge.

"An IT technician is usually billed out at least \$125/hour plus travel. No weed

clearing, rusting hornet infested ATUs, spilled beverages in consoles, etc. — basically it's clean work, with overtime for weekends or after-hours. Given a choice, what would be yours?"

"It's refreshing to see an interest in the broadcast industry," Osenkowsky concluded, but "keeping pace with technology is difficult since few employers will compensate or support the continuing education that is necessary to deal with the installation and maintenance of this new gear. Just look at the new generation of satellite receivers. They are computers, with an RF front end."

Ivory tower

A different but related point comes from Art Reis, who (like Amanda Alexander) works for Crawford Broadcasting.

He wrote in a recent edition of the corporate engineering newsletter that the company has a new part-time remote engineer, an Air Force veteran who is trying to work his way through college on the GI Bill.

"His faculty advisors are trying to discourage him from the career path he has chosen, that is, a broadcast engineering-related field," Reis writes.

"Their tack seems to be that broadcasting is not a worthy choice for a person with an EE degree. They are trying to get him to leave a paying job and instead become an intern, a non-paying position, in something more worthy. He is being urged to attend so-called 'internship fairs' to seek such a position, without pay."

Art has a problem with this.

"While we in broadcasting are approaching a manpower crisis in the one area which is vital to keeping the industry going, here we have some weirdo academic type trying to discourage a person who has made broadcast engineering his life's work from gaining experience in just that career.

"Now, I don't consider it fair to extrapolate from that ... but I wonder how widespread this sort of discrimination is — and yes, that's what I'm calling it because that's what it is."

From the Editor



Paul J. McLane

The young man in question has been mentored by very good broadcast engineers over the last couple of years, Reis feels.

"It would be a crying shame if he would abandon his dream because some snotty advisor seems to think that a career doing the one thing that I and a lot of us dedicated engineers felt born to do is unworthy of his talents and training."

Art isn't an EE; he doesn't have a degree from a technical institute. His degrees are in broadcast arts and sciences.

"Still, I want to know if the kind of treatment that he is getting from his advisors is any kind of trend in academia these days. And if it is, somehow, we in this business have to put a stop to it."

Putting aside Art's broad bashing of "weirdo" academics, once again it seems radio engineering needs to do a better job of marketing itself. Who is speaking up for our careers at the educational level?

He makes an excellent point: If this is a trend, someone is missing the boat.

"RF is still extremely important, and it still should be taught, maybe as a requirement, for an EE degree.

"But for those who think that life revolves only around the '1s and 0s' crowd, let me tell them ... that there is more than enough room in this business for people who know their way around computers and networking. Frankly, we need more people who can do both, not people who discourage their students from doing one or the other.

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GUEST COMMENTARY

McLarnon: Enough Is Enough

Adjacent-Channel AM IBOC Nighttime Interference Is Not Mild

by Barry McLarnon

In his article "AM Nighttime IBOC: Apocalypse or No?" in the Oct. 10 issue of Radio World, Cris Alexander provides some calculations to support his view that impact of nighttime interference has been exaggerated by the "naysayer camp."

As a longtime member of that camp, I'd like to present an opposing viewpoint.

Mr. Alexander's calculations are based upon the assumption that the digital power in the first-adjacent channel is -28 dBc. He acknowledges that this is the power of only one of the digital carriers. It is interesting to note that he made no such acknowledgment in the original newsletter piece from which this article was "excerpted," indicating that it was perhaps a more recent realization on his part.

In any case, he justifies this sleight of hand by saying that we do not consider all the sideband energy in analog signals when we do interference calculations, so there is no need to do so for digital signals. To put it bluntly, this is utter nonsense. To compare an analog AM signal

spacing, these are inconsequential in terms of their impact on analog receivers. Since DRM is intended to coexist with analog AM signals, the subject of mutual interference and protection ratios have been studied carefully by the ITU.

It should come as no surprise that, in interference calculations, the total average power of the digital signal is used. In the case of an AM IBOC primary digital sideband, since there are 25 carriers, and each is set at -28 dBc, the total power is thus $10\log(25) = 14$ dB higher, or -16 dBc.

This is not the end of the story, however. The ITU has also determined that if an analog station is subjected to co-channel interference from a digital signal having an average power of X watts, it will cause *more* interference (in terms of an objective measurement of the reduction in receiver signal-to-noise ratio, or a subjective assessment of audio quality) than an analog signal having a carrier power of X watts.

They further determined that the digital power must be backed off by 6 to 7 dB in order to provide equivalent protection



Barry McLarnon

If we do a calculation using the method outlined above, which I contend is much closer to reality, we arrive at a very different result. We start with the field strength of WBZ at the WYSL site.

My calculations, using standard FCC prediction methods, show the 10 percent skywave field strength to be 3.88 mV/m. The field strength of the WBZ primary digital sideband that is co-channel to WYSL is thus 16 dB less than this, or 0.616 mV/m.

When we apply the 32 dB protection ratio to this figure, we then get an RSS contribution from WBZ of 24.6 mV/m. Lastly, when we include the existing RSS contribution from WHO (since it is more than 50 percent of the WBZ value), we get a calculated NIF value of 28.2 mV/m. In stark contrast to his calculation, this is an increase of more than 100 percent.

Who is right? Well, the owner of WYSL has done field tests, and found severe interference from WBZ's IBOC at his 18 mV/m contour. If Alexander's calculation showing no significant impact from WBZ on the WYSL NIF were correct, this simply should not happen, since it is well inside the pre-IBOC NIF.

My calculation, on the other hand, fits very well with the observations of significant interference at 18 mV/m, which is well outside my calculated NIF for WYSL.

Alexander also cites the example of WJR and WABC. He says his NIF calculation for WJR, taking WABC's IBOC into account, results in a value of about 1.1 mV/m. Here again, I contend that he is way off-base.

My calculations show a 10 percent skywave field strength from WABC at the WJR site of 2.20 mV/m. This translates into a digital signal of 0.349 mV/m that is co-channel to WJR. Apply the 32 dB protection ratio, and we get an RSS contribution of 14.0 mV/m.

There is no need to include any other contributors, since they are well under 50

See MCLARNON, page 6 ►

Each and every one of those digital carriers contributes to the generation of audible noise in an AM receiver tuned to the first-adjacent channel of an IBOC station, and they must all be considered in any interference analysis.

to a 64QAM OFDM digital signal (containing, in the case of an AM IBOC primary sideband, 25 carriers) on such a basis makes no sense whatsoever.

The existing AM protection rules were established on the basis of measurements, with the carrier power as a convenient reference level. This does not mean that you can extrapolate those rules to some wildly different multi-carrier digital interfering signal simply by taking the power of one of those digital carriers as a reference. Each and every one of those digital carriers contributes to the generation of audible noise in an AM receiver tuned to the first-adjacent channel of an IBOC station, and they *must* all be considered in any interference analysis.

'Hiding' digital signals

To be charitable, I must admit that radio broadcast engineers in the United States have little experience with doing calculations involving digital interference to analog signals. This is a consequence of the IBOC subterfuge of "hiding" digital signals under the analog emission mask, and thus never having to deal with them as the separate entities that they clearly are.

Such is not the case in the rest of the world, however. The DRM system uses the same type of OFDM modulation (with a choice of 16QAM or 64QAM on the individual carriers) as the AM IBOC system, and although there are some differences in parameters such as carrier

to analog co-channel stations. To put this in a North American context, since the current analog co-channel protection ratio is 26 dB, for equivalent protection from co-channel digital signals, we should raise the ratio to 32 or 33 dB. For the sake of argument, let's make it 32 dB.

Armed with this information, we are now in a position to do a root-square calculation that provides a realistic picture of interference from IBOC stations on first-adjacent channels. To do so, we calculate the field strength (10 percent skywave) from the IBOC station on its assigned channel at the location of the affected station, then reduce it by 16 dB to get the field strength of the digital signal on the first-adjacent channel (co-channel to the affected station), and, finally, apply the 32 dB protection ratio to get the RSS contribution from the IBOC station.

Field strength measurements

Now, let's take a look at the examples in Cris Alexander's article.

First, WYSL, which he says will suffer only a tiny increase in nighttime interference due to IBOC on WBZ — not enough to raise WYSL's official NIF contour value, which is said to be 13.87 mV/m. However, he arrives at this conclusion by using the fallacious -28 dBc digital power level, and by ignoring the greater potential for digital signals to cause audible interference. (See WYSL story, page 1.)

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McLarnon

► Continued from page 5

percent of this value, so this is my estimate of the new NIF contour for WJR. Needless to say, a NIF of 14 mV/m would be extremely shabby for a Class A station, which should be protected to its 0.5 mV/m contour at night. The interference effect is reciprocal, so WABC will also acquire a NIF in the neighborhood of 14 mV/m when WJR runs nighttime IBOC.

As far as I know, no nighttime IBOC field test data results have been disclosed for either station, so there is no direct evidence to support my conclusions.

However, we do have indirect evidence presented by the fact that Citadel, owner of both stations, has made the decision to

suspend nighttime AM IBOC operations, citing "significant interference" as one of the reasons. It seems likely that the mutual interference between these two stations was a major factor in this decision.

Moreover, there have been a number of reports on various digital radio listservs of serious IBOC interference to other Class A stations — WBAL, WBBM and WSCR, to name a few — typically near their 10 to 15 mV/m contours. This simply could not happen if the interference from adjacent-channel IBOC were as mild as Cris Alexander's calculations indicate.

Core coverage only?

In short, I believe that my calculations reflect sound engineering principles, plus experience gained with mixing analog and digital broadcast signals elsewhere in the world.

In addition, the limited field test data that have emerged since the start of nighttime AM IBOC seem to support my findings. Mr. Alexander's approach to the interference problems, on the other hand, seems to be driven largely by wishful thinking, and his conclusions fly in the face of reality.

In shutting down nighttime AM IBOC, Citadel also cited "lackluster performance." No surprise here, either. Poor digital performance at night is the inevitable result of usurping your neighboring channels to run digital, since those channels are awash in skywave signals at night.

I would be very surprised if any AM IBOC stations are getting reliable digital coverage outside their 20 mV/m contours at night, and, for some, it's probably closer to 40 mV/m. So, nighttime digital coverage is only available in the core cover-

age area where analog reception is also generally very good, and for this meager coverage, the IBOC station will likely create degraded analog service for stations hundreds of miles away.

Surely, anyone with an ounce of common sense can see that there's something wrong with this picture!

As I said in these pages more than a year ago, it is time to stop this madness and start exploring more sensible approaches for digital operation in the AM band.

McLarnon is an international communications systems engineer and consultant. He owns BDMComm in Ottawa.

RW welcomes other points of view to radioworld@imaspub.com.



Mike O'Shea, Chief Engineer
WUSF, Tampa Florida


"When we started shopping for new consoles at WUSF, my first step was to ask my peers what they thought. I posted a question on Pubtech saying I was thinking about switching to a routing system console, and asked for recommendations. The majority of responses led us to Logitek."

We have purchased several Logitek consoles over the past few years, and are amazed at how much console we get for the price. I recently bought two consoles plus a router for less than I paid in 1989 for two analog consoles. When you consider what the 1989 costs represent in today's dollars, the cost savings are incredible and there's no comparison for the flexibility we have today.

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NEWS WATCH

Performance Rights Is Emotional Issue

WASHINGTON The performance rights issue — or, as NAB calls it, a performance tax — received more attention in advance of a hearing scheduled by a Senate committee hearing in November.

NAB President/CEO Rehr said in a notice to members that he anticipated Rep. Howard Berman, D-Calif. would introduce a bill calling for radio stations to pay the record labels for performance rights. Radio has been exempt from the fees in recognition of the value of airplay to new artists.

Berman and the Recording Industry Association of America and their allies have worked for months on such a bill, Rehr stated. "They have spoken with members of Congress to co-sponsor this legislation and will attempt to create momentum for this bill by utilizing the power of the press and leveraging their rhetoric." He predicted a companion measure would be introduced in the Senate.

Reps. Gene Green, D-Texas and Mike Conaway, R-Texas, meanwhile, introduced a resolution opposing the performance royalty called the "Local Radio Freedom Act."

The MusicFirst Coalition, which supports a royalty, reportedly has floated possible exemptions to the new fee.

Free Radio Alliance Spokesperson Cathy Rought stated: "Don't be fooled by the record labels' proposal for a lower performance tax on small and noncommercial broadcasters. Just ask Internet radio how well that deal has worked out for them."

Rehr believes the Berman bill could include exemptions for certain broadcasters; but, he said, "the clear goal of the RIAA and the record label executives" is to have the levy apply to all stations.

"Including exemptions in legislation is a typical way legislators try to 'ease in' controversial measures and over time work to eliminate the exemptions. If your company falls under the exemption, your relief will be very short-lived. The Copyright Registrar has already said on the record that anyone who airs recorded music should pay this tax."

— Leslie Stimson



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Ownership

► Continued from page 3

Copps and Adelstein told reporters after the localism hearing that the turnout was low compared to other such hearings and cited short notice for that. Based on what they heard in the testimony Adelstein said, "It sounds from the answers we got there's a lot of work to do."

The commissioners heard a big dose of "we don't like big media" from the public, from protestors and most of the official speakers testifying.

The most colorful speakers were "the FCC cheerleaders," apparently members of the Prometheus Radio Project, chanting "2-4-6-8. Who do we consolidate?!" A protestor dressed in a French maid outfit said she was representing a "corporate media whore."

What they said

During the testimony, NAB Executive Vice President for Television Marcellus Alexander, said, "We have the most vibrant broadcasting system in the world," pumping his fist for emphasis. He said radio and TV stations in San Diego and Los Angeles served their communities during the California wildfires and played a tape from KABC(TV), Los Angeles.

Alexander complained that in the localism hearings, broadcasters had been accused of causing everything from "global warming to the mortgage crisis. As Nell Carter used to say during her



FCC Chairman Kevin Martin (center, standing), the Rev. Jesse Jackson and Commissioner Robert McDowell talk before the Oct. 31 localism hearing while Commissioner Jonathan Adelstein, in the foreground at left, speaks with those about to testify.

show, 'Gimme a Break!'"

XM/PRI host and former "Morning Edition" talent Bob Edwards testified for AFTRA, which he said represents more broadcasters than any other union.

"The major radio conglomerates argue that ownership caps should be lifted" to ease the threat from satellite radio. "This ignores the strength of radio is that it's local." A national satellite broadcaster is not going to give local communities information about their local school board, for example, he said.

Lisa Fager Bediako, president and co-founder of Industry Ears, a group that works to combat harmful media messages to children, said women and people of color receive "little to no media attention in this vast media environment." Her

media has fought for decades," he said. If images of dogs and water hoses unleashed on protestors hadn't been aired on TV years ago, civil rights gains would not have occurred, he said.

Rainbow PUSH Coalition President/Founder the Rev. Jesse Jackson said, "For too long, media policies have been made behind closed doors. It's time to democratize the way the FCC operates."

In the city of Washington, people of color make up more than 70 percent of the population, yet only one TV station is minority-owned, Jackson said. At this point protestors in the room cried "shameful!"

[According to the Census Bureau, as of the 2005 census update, 63 percent of the population of the District of Columbia does not identify as white. Eleven full-power TV stations operate in the D.C. market.]

Jackson then turned his comments to the potential satellite radio merger and said the deal is not in the public interest. A protestor behind him held up a sign that read: "Where are the women on this panel?"

Media Access Project President/CEO Andrew Schwartzman said, "It's not about Channel 7. It's about the tons [of stations] that are corporately owned and are doing nothing to change their programming dur-

For too long, media policies have been made behind closed doors. It's time to democratize the way the FCC operates.

— The Rev. Jesse Jackson

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last-minute invitation to be on the panel illustrated the point, she said.

NOW President Kim Gandy said women and people of color are "woefully underrepresented" in the ownership ranks and something needs to be done to remedy the "past disservice to women and minorities who did not benefit from the government's initial free handout of spectrum."

Capital Broadcasting President/CEO Jim Goodman said the FCC should wait until the digital transition is over before starting to change ownership rules. When it does focus on the rules, he suggested they look at the rules as a whole, rather than piecemeal, reminding commissioners that many owners have both radio and TV in their portfolio.

As far as public interest standards, his arguments were simple: "Ask broadcasters what we're doing." "Tell us what our minimum public interest standards are."

Leadership Conference on Civil Rights President/CEO Wade Henderson reacted to comments made earlier during the hearing about Washington AMs WMAL and WTOP. As a native Washingtonian who remembers when the city was segregated, Henderson testified, "I could not have had internships at those stations."

Commissioner Robert McDowell, also native to the area, had previously mentioned interning at the stations.

Ownership, Henderson said, gets to the heart of how media covers issues and what topics are chosen. "The battle over who controls media is a battle civil rights

ing the fires. They should be asked why. Radio and TV stations carrying shopping programming 24 hours a day are presumed to be in the public interest."

George Washington University Professor Christopher Sterling said there's plenty of local outlets, but too few voices and the plethora of opinions provides little real diversity of programming.

"Too often, new entrants are cut off at the knees by existing broadcasters, including public radio, complaining about interference," apparently referring to NPR and NAB on the question of whether it's wise to drop third-adjacent channel protection in a heavily populated market to allow new LPFMs on the air.

Free Press Research Director Derek Turner said, "Gutting the remaining rules is not in the public interest. The industry will tell you they need to gut these rules because the Internet has left them in poverty. It's not true. Overwhelmingly, broadcast radio and TV continue to be the highest sources of local news." He conceded that over the long-term, the Internet "presents a challenge" to local media for those listeners and viewers.

Finally, Mark Cooper, director of research for the Consumer Federation of America, said the localism initiative "should dissolve into a thousand footnotes" in a media ownership rule. Begun in 2003, the localism task force found "market forces alone will not produce localism." He added: "Simply rolling all of this into one, humongous order" does not serve the public interest.



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World Radio History

Future

► Continued from page 1

Before it became a private-label service in early October, Bridge Ratings' most recent projections indicated slower than expected HD Radio acceptance by listeners, with less than 5 million U.S. users by 2015. The overall growth trend for terrestrial radio is forecast to

analog will be behind us," Davis said. "Advancements in digital service will result from better codec technology and more bandwidth being available."

A futuristic studio will likely lack audio consoles or other single-purpose equipment, according to Davis, as computers increase in power and become smaller.

"A studio will still need a microphone and speakers, but it is likely to look much different than today ... maybe all touchscreens and panels," Davis said.

ducing, Smith said.

"My suspicion is that the average facility will be more complex in terms of individual studios, but with each studio more compact," Smith said.

Others see wireless studio equipment as all the rage. Imagine control room and technical center equipment that interface with each other without major setup, said Marty Hadfield, president of The Hadfield Group, an engineering consulting firm.

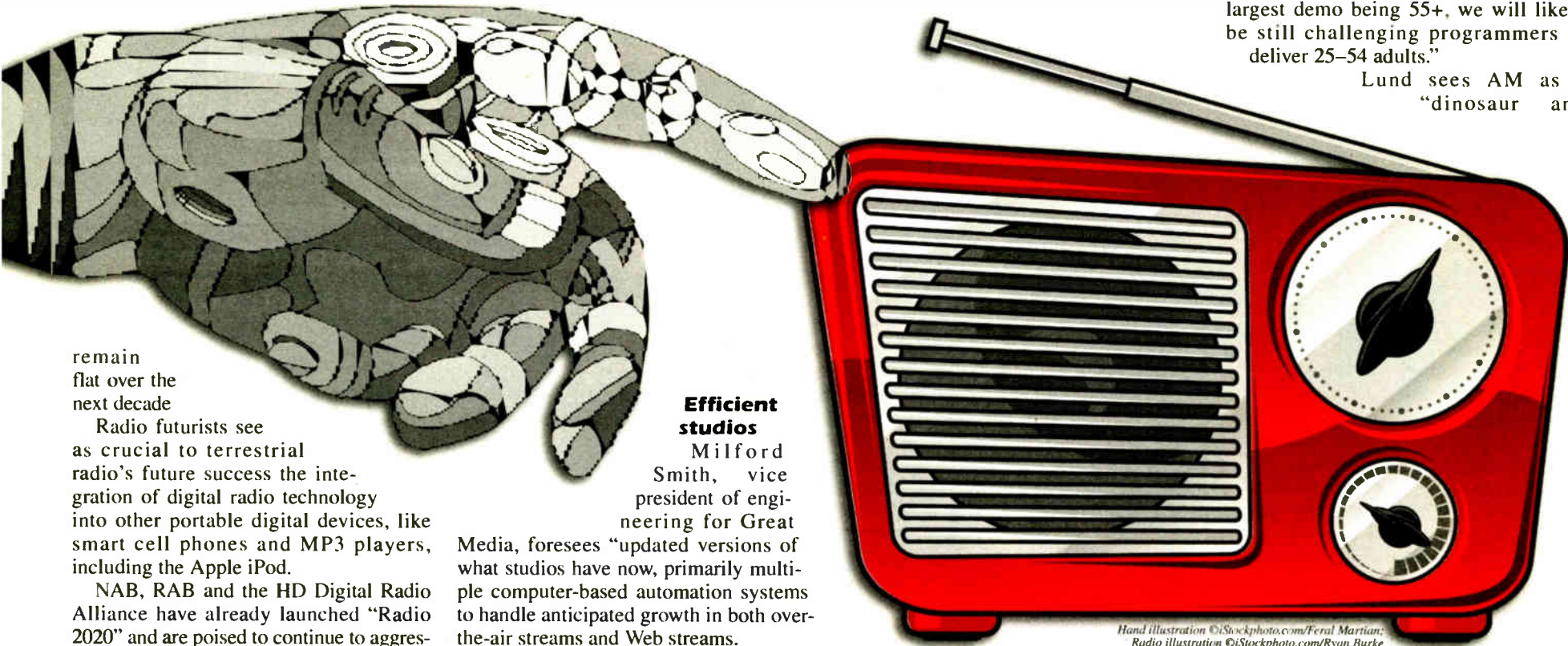
"There will be more tightly bundled program content and

throughs that will add efficiency to radio station's operability, programming consultants say content will still determine the success or failure of a broadcaster.

Content will remain greatly unchanged with flash-in-the-pan formats like "Jack" and "Movin'" proving to be just that, said John Lund, president of Lund Media Research.

"The mainstream formats of the last 20 years will continue to be the leaders of tomorrow," Lund said. "Despite the largest demo being 55+, we will likely be still challenging programmers to deliver 25-54 adults."

Lund sees AM as a "dinosaur and



remain flat over the next decade

Radio futurists see as crucial to terrestrial radio's future success the integration of digital radio technology into other portable digital devices, like smart cell phones and MP3 players, including the Apple iPod.

NAB, RAB and the HD Digital Radio Alliance have already launched "Radio 2020" and are poised to continue to aggressively push HD Radio, including a campaign to target automakers and dealers.

HD Radio "absolutely will be the focus of terrestrial radio" with better coverage, more services and better audio quality, said Steve Davis, senior vice president of engineering and capital management for Clear Channel Radio.

"I believe all radio will be digital. Likely analog will be gone, so we'll no longer be operating in 'hybrid' mode, meaning the issues of interference with

Efficient studios

Milford Smith, vice president of engineering for Great

Media, foresees "updated versions of what studios have now, primarily multiple computer-based automation systems to handle anticipated growth in both over-the-air streams and Web streams.

"Maybe by 2017, flash memory will be the norm, with hard-drive storage relegated to turntable status," Smith said.

Almost certainly, there will be a "revolution in the studio-to-transmitter link area to achieve adequate bandwidth to handle increasing data loads and greater interactivity with listeners," Smith added.

Radio stations will also require additional studios to program multiple HD-R streams as they move from canned to live and from noncommercial to revenue-pro-

traffic/billing/programming computer software packages and higher reliability through the use of flash drive replacements for hard drives in most offices." As a result, "on-air computers will have reduced repair demands on the IT department," said Hadfield, former vice president of engineering for Entercom.

Still all about content

Despite the technological break-

worthless in stick value," but having companion HD Radio and translator frequencies will give them the appearance of value, he said.

"Stations that blend their on-air programming with other media services, such as packaged downloads of programming from an online menu, will find added value. Clone stations will not," Lund said.

Look for more talk radio on FM as radio stations realize their playlists are not as bullet-proof as the listener's own iPod list, said Holland Cooke, news/talk specialist with McVay Media.

"New cars have iPod jacks. That will greatly impact in-car listening. No matter how few commercials a radio station runs, iPods run fewer," Cooke said. "By 2017 look for more broadcasters to be simply simulcasting talk programming from their AM stations on their FM signals and exiting the diminishing returns proposition that FM has become."

The in-car listening experience will surely change, but radio will "preserve its unique venue," predicts Dan Spice, vice president of Lund Media Research.

Not an easy chore since satellite, Internet, WiFi and iPod and their ilk are expected to make the battle for shares of in-car listening uncomfortably close by 2017 and beyond, experts said.

"Car radios will be removable to take along on public transportation, to use at work or at home. The Internet will be delivered in a wider fashion with wireless capability everywhere there is population," Spice said.

Radio has the "content and the brand" to eventually win on the Internet via their streams, said Spice.

Some industry analysts see re-consolidation or rationalization, whereas the

See FUTURE, page 12 ►

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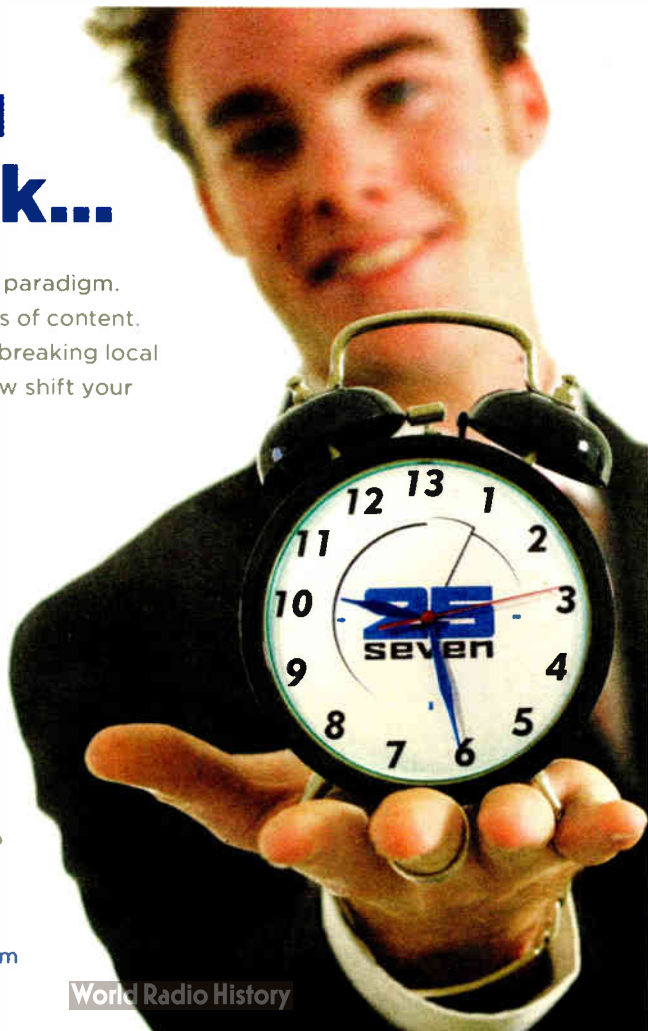
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WYSL

► Continued from page 1

The FCC said in its IBOC authorization text this year that interference cases would be handled case-by-case. A commission spokesman told RW then that mitigation in such cases could include the agency telling a station to lower the power level in one or both of digital sidebands, or even turning off the nighttime AM IBOC altogether.

Savage claims adjacent-channel skywave to co-channel groundwave interference. The multi-page complaint, obtained by Radio World, includes affidavits from communications engineers and consultants William Sitzman and Barry McLarnon.

Savage says field tests reveal severe interference from WBZ's IBOC signal at the WYSL 18 mV/m contour.

CDs filed with the complaint and provided to RW purport to show examples of the interference, including hiss, static, dropouts and double audio.

free (NIF) contour (13.687 mV/m), and its 5 mV/m and 2 mV/m predicted contours on file with the FCC. Digital recordings were made of both stations."

It's worth noting that the 13.687 mV/m is WYSL's NIF for analog only. McLarnon has calculated WYSL's effective NIF including both analog and digital signal contributions to be 28.2 mV/m, more than twice the current value (see story, page 3.)

The measurement gear was a Potomac field intensity meter and a RadioShack DX-402 multi-band receiver feeding a Marantz PMD660 portable digital audio recorder.

Days later, the process was repeated as the audio recorder rolled; WBZ Engineering Manager Mark Manuelian, contacted by WYSL personnel by cell-phone from the field, switched WBZ's IBOC HD-R exciter on and off, according to Savage. Though Manuelian initially cooperated with WYSL, communication stopped shortly afterwards, according to Savage.

He said the data and audio recordings show WBZ's upper IBOC sideband is interfering with WYSL's analog signal at each contour point, during daytime, critical hours and nighttime hours.

"The WBZ IBOC skywave delivered to WYSL's local coverage varies widely, in our experience," states Savage in the report.

"The night Mr. Manuelian was cycling the WBZ IBOC exciter on and off for purposes of collecting data for this report, WBZ was delivering a skywave signal intensity ranging from about 1.5 to 4 mV/m." More recently, WBZ has produced skywave exceeding 7 mV/m in the WYSL market, reports Savage, who filed his complaint Oct. 23.

In the complaint, Savage reports "WBZ's digital sidebands were invading a WYSL measured signal strength exceeding 18 mV/m, almost four times the strength regarded as 'city grade' by the FCC, and far exceeding WYSL's nighttime NIF of 13.687 mV/m."

He fears AM propagation conditions will worsen in the winter.

"With a more medium-wave reflective ionosphere, frozen ground and snow cover, the adjacent-channel [IBOC] noise is likely to become markedly worse. ... If allowed to continue unmitigated, the IBOC interference is likely to cause loss of ad-

vertising revenue and diminishment of WYSL's market value as a broadcast property."

Savage says he could potentially lose about \$100,000 in nighttime ads for sports events this winter due to interference.

WBZ did not return several requests for comment; neither did the FCC. Ibiqity declined to comment. Savage said WBZ had not contacted him either as of late October.

This could be the first AM nighttime IBOC-related interference complaint the commission has received since stations were allowed to leave their digital transmitters on 24/7 on Sept. 14.

FCC Audio Division Chief Peter Doyle said the agency had received no such complaints as of mid-October.

'Anti-IBOC Alliance'

Savage feels so strongly that IBOC in the hybrid mode is bad for AMs that remain analog, that he and friends Watt Hairston, chief engineer for WSM(AM) in Nashville, Tenn., and Jerry Arnold, director of engineering Midwest Communications in Terre Haute, Ind., have created what they call the "the Anti-IBOC Alliance," with a Web site at www.stopiboc.com.

Though the Web site was being tweaked in late October, features include tips for filing interference-related complaints to the FCC and an "IBOC-AM Confessional," where members can share stories of "being forced by management to install IBOC against their best professional judgment."

See WYSL, page 14 ►

This is thought to be the first AM nighttime IBOC-related interference complaint the commission has received since Sept. 14.

WYSL operates DA-3, with 20 kW daytime, 13.2 kW critical hours and 500 watts at night on 1040 kHz. It is licensed to Avon, N.Y., about 25 miles south of Rochester. Robert Savage is president/CEO; he also worked many years as a programmer in larger markets for larger group owners. The station handles its own engineering in-house.

CBS Radio's WBZ operates unlimited hours DA-1 with 50 kW on 1030 kHz.

In his complaint, filed in late October,

WYSL personnel spent more than 100 hours and drove more than 700 miles in field tests gathering data to back up its complaint, Savage said. They took measurements before and after Sept. 14, the first night AMs could run their IBOC transmitters overnight.

"Using a field-intensity meter, a portable multi-band receiver and digital audio recorder, signal strength was noted for both WYSL and WBZ at 14 locations within WYSL's nighttime interference-



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Future

► Continued from page 10

largest and unwieldy radio group portfolios are pared back by 2017.

Analyst Jim Boyle with CL King & Associates said, "The giant platforms have not shown that is the way to go in a people-intensive, management-intensive local focus business. Running very large radio groups is radio run by spreadsheets. I don't expect that to be any different by 2017."

Other analysts believe good radio will still be producing dependable streams of revenue and profits in 2017.

"Radio will have finished transforming from a growth business to a value business. Given the enormous growth in new media revenues, just by holding its

own radio will have actually done a good job," said Glenn Serafin, president of brokerage firm Serafin Bros. Inc.

Dick Blackburn, president of media brokerage firm Blackburn & Company Inc., said, "Local radio will still be winning the battle for listeners in every market."

Much has been made about Google's entry into radio advertising placement, specifically filling radio stations' remnant inventory.

"While Google offers radio broadcasters the opportunity to generate revenue by auctioning excess inventory, radio operators' fear of the commoditization of their airtime will limit its growth. Stations will continue to rely on traditional sales channels that stress the value and uniqueness of the audience associated with their airtime," said analyst John Sanders of Bond & Pecaro. ●

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

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

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

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

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

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

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

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

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Who are these guys? • Why buy a console from Axia? Element was designed by Mike Dosch and his team of ex-PR&E renegades (who know a bit about consoles). And Axia is a division of Telos, the DSP experts.

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

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

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

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



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WYSL

► Continued from page 12

On the site, Savage and his colleagues call for congressional investigation of what they call the "cruel steamrolling of independent AM operators, and a nighttime medium-wave morass certain to drive away what's left of the dwindling AM-band audience."

"It's just not right," said Savage.

While IBOC proponents have said there have been few AM-related complaints about nighttime service, "that's largely because small-market AM operators don't know what to do," Savage

argued, saying those owners are less likely to have a communications lawyer and consulting engineer at the ready.

With less than 70 AMs on the air at night with IBOC as of late October, Savage believes, "the scarcity of complaints isn't surprising," adding it would be a mistake to assume this means there isn't interference.

As of early November, the site had some 90 registrants, though not all of them broadcasters, he said.

Will the effort make a difference?

Savage said he "doesn't harbor illusions," but added, "We have to take a stand and try to save our business."

Ibiquity had no comment. ●

Bumpy AM IBOC Days at Cox, Citadel

Neither Citadel nor Cox Radio have their AM IBOC issues resolved and it's not clear when they will be.

Citadel drew attention for pulling back on nighttime AM IBOC operation, unexpectedly becoming the biggest broadcaster to do so with 10 involved stations.

Radio World reported in October that the company's AMs had returned to daytime-only IBOC operation due to interference concerns. The owner has received interference complaints from listeners and stations on adjacent channels, the latter from both Citadel and non-Citadel stations in and outside the markets.

Most of the complaints were in the Northeast, Director of Corporate Engineering Martin Stabbert said in a subsequent interview at the end of October.

He said no formalized test and measurement plan is in place yet. Still to be decided is which of its stations would serve as test beds or parameters of the test.

Stabbert said earlier that other broadcast groups are welcome to take part in the tests; one broadcast group, also a member of the HD Digital Radio alliance, expressed interest, he told RW later.

An Ibiquity spokeswoman said the technology company has test plans for Citadel, but she couldn't go into specifics.

Separately, as of late October, nothing had changed at Cox Radio, which earlier turned off IBOC on several AMs entirely. The broadcast group has self-interference concerns, which it said earlier causing a faint buzz in the background on some wide front-end Chrysler radios.

In the meantime, Cox tests the IBOC equipment it has purchased for its AMs but then shuts it off. Cox has 13 AMs and has converted about half, said Sterling Davis, vice president of engineering for Cox Broadcasting.

In response to a query in late October, Davis said he hasn't heard anything lately from Ibiquity about the issue. He stressed that the self-interference concerns Cox has experienced are different than Citadel's adjacent-channel interference issue.

An Ibiquity spokeswoman declined to comment on the Cox situation.

—Leslie Stimson

Newswatch

► Continued from page 2

period for technical amendments and joint settlements will expire on Jan. 7.

News Roundup

TRANSLATORS: The FCC proposal to allow AMs to broadcast on FM translators was published in the Federal Register, triggering a public comment period. The rule changes would allow AMs to operate FM translators to retransmit as a fill-in service, as long as no portion of the 60 dBu contour of the translator extends beyond the lesser of the 2 mV/m daytime contour of the AM station, or the 25-mile radius of the AM transmitter site. The commission is asking for comment on rule changes necessary, including eligibility and ownership issues and appropriate technical limitations. Also in the Notice, the agency proposes to modify the rules to allow AM daytimers to originate programming on fill-in FM translators at night. Comments to MB Docket No. 07-172 are due Jan. 7.

WESTWOOD ONE will ship updated satellite receivers to 2,000 stations as part of a system update set for Q1 deployment. The Media Access Xchange receiver is a new version of International Datacasting's SuperFlex Pro Audio suite. The network upgrade is an expansion of a major-market sports network IDC installed in 2005. That upgrade allowed ad insertion on a regional basis during live sports events. MAX will provide copy-splitting functionality beyond sports, plus additional upgrades. Infrastructure at the uplink site in New York also is being overhauled, which is expected to reduce costs and increase revenues over time, according to the companies.

RADIO PHONE: Non-com WFMU (FM) in Jersey City, N.J., says it was the first station to stream live radio to the iPhone and iPod touch. The eclectic-format station says its stream plays through

QuickTime and was made possible by Tversity, a software company that claims to be the first enabler of streaming live radio for the iPhone. On its Web site the station says: "Point your iPhone browser at iPhone.wfmu.org to experience the world's first live radio stream for iPhones."

EAS: The FCC took comments on non-English EAS. As part of its review of the system and transitioning alerts to the digital age, the commission had said it would treat the issue of emergency alerts for non-English-speaking listeners and viewers separately. The commission asked for comments to EB Docket No. 04-296 by Dec. 3.

EAS II: New EAS become effective Dec. 3. Under the new rules, stations that participate in EAS will need to use a Common Alerting Protocol to accept alerts 180 days after FEMA adopts standards.

NO RUSH: Commerce Committee Chairman Senator Daniel Inouye, D-Hawaii, says the FCC should not rush to complete its revision of the media ownership rules. In a statement released at a hearing in November, Inouye cautioned the agency not to hurry to judgment. "Rushing forward before the end of the year would be a serious mistake."

OWNERSHIP: Sens. Byron Dorgan, D-N.D. and Trent Lott, R-Miss., introduced a bill aimed at slowing the FCC's decision process on revising its media ownership rules. If passed, "The Media Ownership Act of 2007" would require 90 days for the public to comment on any proposed media ownership rules put forward by the FCC. It would also require the commission to complete a separate proceeding to evaluate how localism is affected by media consolidation.

CHOPPER SUIT: Pompano Helicopters filed a \$362 million lawsuit against Westwood One alleging that Westwood and its subsidiary, Metro Networks Communications, worked to drive Pompano out of business and take over its contracts to provide stations with helicopters for news and traffic. Pompano claims it lost contracts with Metro and TV stations because of rumors it believes were part of a campaign to subvert its business. Westwood One had no comment.

AUDIOVOX introduced two HD Radio receivers as part of its Jensen car audio line. Models HD5112 and HD5212 are the first HD-R products for the Jensen brand. Both offer iPod connectivity with a connecting cable and are satellite-capable. The units include a USB port and SD card support; they can also support MP3/WMA files, according to Audiovox. The HD5112 has a silver faceplate and lists for just under \$150 while the HD5212, which has a black faceplate, lists for around \$160.

DC MULTICAST: Bonneville's WTOP (FM) Washington added an HD3 channel to its 103.5 MHz frequency — an all-traffic and weather channel. Bonneville continues programming an unsigned rock artists format on 103.5's HD2 signal and all-news on its HD main and analog channels.

HARRIS said broadcast revenue was up 5 percent in the recent fiscal quarter despite softness in transmission sales. The company brought in \$147 million in the three-month period and said operating income was up 18 percent. Harris said its broadcast business is benefiting from recent cost cutting.

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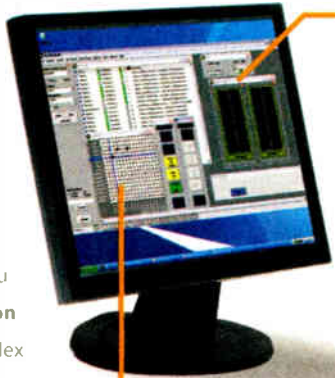
You're looking at a complete audio-over-IP routing system.

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Administer this ■ The beauty of the Web is that you can get information anywhere. Same thing with Axia: you can set up and **administer an entire building full of Axia equipment** — audio nodes, consoles, virtual routers, whatever — from your own comfy office chair. All you need is a standard Web browser (PC or Mac, we like 'em both). Put an Internet gateway in your Axia network and you can even tweak stuff remotely, from home or anywhere there's a Net connection. Hey, isn't it time for a Mochachino?

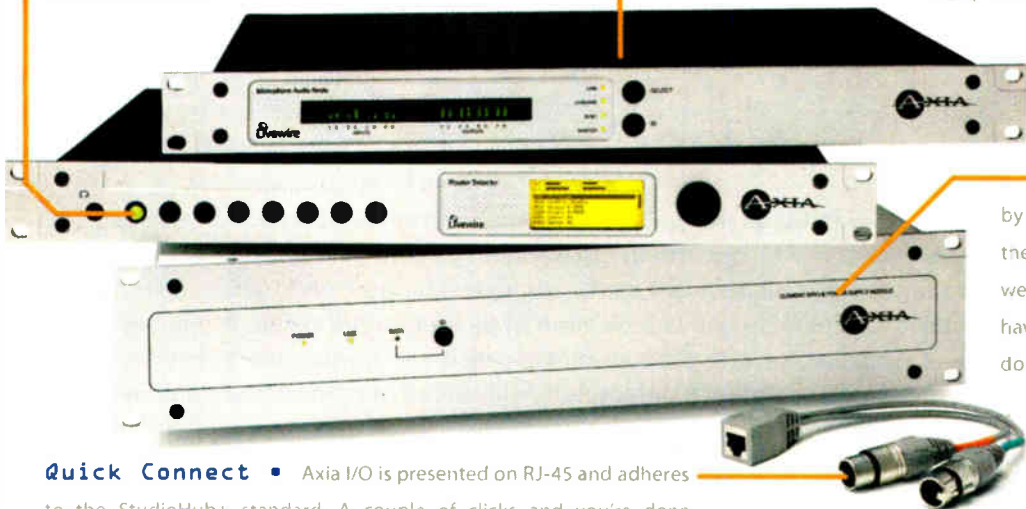
It's not rude to point

■ Little kids tell mommy what they want by pointing — a pretty intuitive way of doing things. PathfinderPC software gives talent the same convenience. You can **build custom "button panels"** to execute complex operations with just one click. You can map these panels to controller modules on Element consoles or to turret-mounted controls, place mini-applications on studio computer screens, even run them on touchscreen monitors.



Jammin' on the mic ■ Radio studios and microphones go together like Homer Simpson and donuts. Unfortunately, so do preamps, mic compressors, EQ boxes, de-essers — let's face it: most studios house more flying saucers than Area 51. Axia helps clean up the clutter by including mic preamps with our Microphone Nodes; not bargain-basement units either, but **studio grade preamps** with headroom enough to handle Chaka Kahn. Phantom power, too. And if you choose to use Axia Element consoles in your studios, you'll find world-class mic processing built right in: vocal dynamics (compression and de-essing) from the audio processing gurus at Omnia, plus three-band parametric EQ with SmartQ, available on every mic input. Rap on, Grandmaster.

Push to play ■ Axia Router Selector Nodes are **really advanced selector and monitor panels** that you can put anyplace you need access to audio streams. Like newsrooms, dubbing stations, or even the station's TOC, so you can monitor any of the thousands of audio streams on your network at a moment's notice. The LCD screen scrolls through a list of available streams; the eight Fast Access keys let you store and recall the streams you use most. There's even an input, for convenient connection of an analog or AES device. Sweet.



Quick Connect ■ Axia I/O is presented on RJ-45 and adheres to the StudioHub+ standard. A couple of clicks and you're done.

Automation station ■ Wouldn't it be cool to have a **self-monitoring air chain with silence-sense** that can fix problems, then e-mail a status report? To be able to switch your program feed from Studio "A" to Studio "B" with one button? Or build custom switching apps and scheduled scene changes based on Boolean logic and stacking events? PathfinderPC software does all these things and more. But unlike HAL 9000, it doesn't talk back to you.

Nothin' but Net ■ Did you know you can plug a PC directly into an IP-Audio network to exchange audio? Can't do that with a mainframe router. Well, you *could* add more input cards to the mainframe, buy high end audio cards and run more wiring... but with Axia, you just install the **IP-Audio Driver** on any Windows PC to send and receive pure digital audio right through the PC's Ethernet port — no sound card required or additional router inputs needed. The single-stream version is great for audio workstations; the multi-stream version lets you send and record **16 stereo channels simultaneously** — perfect for digital automation systems.

Very logical, Captain ■ Routing logic with audio used to be as hard as performing the Vulcan Mind Meld. But Axia makes it simple, converting machine logic to data and pairing it with audio streams. So **logic follows audio throughout the facility** on Axia's switched Ethernet backbone. Eight assignable GPI/GPO logic ports, each with five opto-isolated inputs/outputs, are built into every Element power supply, so you can control on-air lights, monitor mutes, CD players, DAT decks, profanity delays, etc. Got more than eight audio devices? Add a GPIO node like this one wherever you've got gear.

AES yes ■ You like your audio to stay digital as much as possible, right? We get that; our AES/EBU Audio Nodes let you plug AES3 sources right into the network. Studio-grade sample-rate converters are inside; anything from **32 kHz to 96 kHz** will work. Oh, and there are 8 AES ins + 8 AES outs in each node. Digital distribution amp, anyone?

Brains in the box ■ The typical radio jock cares for studio equipment about the same as a five-year-old cares for a puppy; haphazardly, if at all. That's why we **took the CPU out** of our Element modular console and put it in here, with the power supply and GPIO ports.

That means a greatly reduced chance of being taken off the air by a Coke spilled into the board. Because we know that you have better things to do on a Sunday night than trying to dehumidify circuit boards with a hair dryer.

Put that in your pipe ■ How many discrete wires can a CAT-6 cable replace? Well, a T-3 data link has 44.7 Mbps of throughput. But Axia networks' Gigabit Ethernet links give 1000 Mbps of throughput between studios — more than 22 times the capacity of a T-3; enough for 250 stereo channels per link — the equivalent of a **500-pair bundle on one skinny piece of CAT-6**. Use media converters and optical fiber for even higher signal density. Think that might save a little coin in a multi-studio build-out?

Level headed ■ These green, bouncing dots built into every Axia Audio Node are confidence meters. One glance and you know whether an audio source is really active — or just playing possum.



Heavyweight champion ■ This Axia StudioEngine works with our Element Modular Consoles (the fastest growing console brand in the world, by the way) to direct multiple simultaneous inputs and outputs, mix audio, apply EQ, process voice dynamics, and generate multiple mix-minuses and monitor feeds on-the-fly. To make sure it delivers the reliability and ultra-low latency broadcast audio demands, we powered the StudioEngine with a fast, robust version of Linux — so fast that **total input to output latency is just a few hundred microseconds**. How can one little box do so much? There's a blazingly fast Intel processor inside, with enough CPU muscle to lift a small building. Strong and fast: Ali would approve.

You got to have friends ■ Delivery system providers like ENCO, Prophet, BSI, BE, iMediaTouch, DAVID Systems and more all have products that **work directly** with Axia networks. So do hardware makers like AudioScience, International Datacasting, 25/Seven, Telos and Omnia. Check out the whole list at AxiaAudio.com/partners/.



AxiaAudio.com

Workbench

John Bisset
SBE Educator
of the Year

Radio World, December 5, 2007

Past columns are archived at radioworld.com

Walk This Way! LEDs at Work

by John Bisset

I'm always amazed at the new uses for LEDs, and not just in switches or replacing flashlight bulbs.

LEDtronics announced the release of its new Flashing LED Chevron Arrow

arrows-always-on mode (batteries are not included).

LEDtronics thought of everything. The LED Arrow Mat has eight magnetic pads that allow attachment to ferric-metallic surfaces — like the side of your remote van. But they also included eight 1/2-inch

These days, with active balanced in and out the order of the day, devices downstream of the processor (and connected to the same terminals as the device depicted in the schematic) might have an input Z (impedance) of nominally 100K ohms — what we used to call “bridging.”

In that circumstance, the admittance of the 2.2K input resistors is almost three orders of magnitude larger than the input Z of the next downstream device and will be the determinant of the stereo separation, degrading it maybe 30 to 40 dB or more. That 4.4K network of series resistors will look basically like wire.

Instead, put the inverting input of an ordinary op amp at the junction of the two resistors, and choose whatever feedback resistor value you like. To keep the functional characteristics unchanged, it should be 2.2K also.

The result will be to create a Z=0 node at the junction of the 2.2K input resistors and eliminate (to 80 dB or so) any crosstalk between channels.

In cases where the processor output has an impedance that truly approaches zero, this would be much less of a problem, as we mentioned. But most devices with active balanced outputs don't run the naked op amp output right to the screw terminal. Instead it goes through a resistor of some modest value. And therein lies the problem.

Frank McCoy can be reached at fm@ams.fm. Visit www.americanmediaservices.com.

Mike Breitenstein of KTRS(AM) in St. Louis sent pictures of the Harris AM RF contactors used in his array.

Instead of a rocker actuator, these con-

See LUBE, page 19 ▶

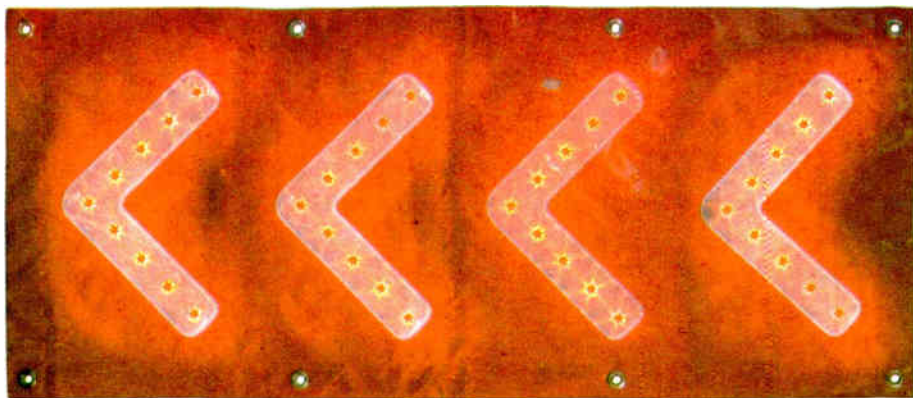


Fig. 1: The Flashing LED Chevron Arrow Mat, powered by AA cells. Use it to provide direction to a station event, or as a traffic director or roadside-emergency diverter.

Mat. This convenient, portable, light-weight LED Arrow Mat has three safety Light Modes of operation. Users can select from a Sequential LED Arrow Flash Mode; All-LED Arrows Flashing in Unison Mode; and All LED Arrows Always “On” Mode.

The beauty of LEDs is that they are solid-state devices that offer high shock and vibration resistance. The LED mat is the ideal safety item for station remote vehicles, vans and trucks. Use an LED mat to drive traffic into a remote site.

The Chevron Arrow Mat is energy-efficient, too, and operates with three replaceable AA cell batteries for nearly 72 hours in the arrows-sequentially-flashing mode, 48 hours with all arrows flashing in unison, and up to six hours in the

eyelets for fasteners or cable connections. In addition to using the mat to provide direction to a station event location, it can be used as a traffic director or even a roadside-emergency traffic diverter.

Frank McCoy, a long-time friend of this column and RW, is vice president of American Media Services, a firm that upgrades radio stations.

Frank comments on the schematic in the Oct. 24 *Workbench*.

Unless the outputs of the audio processor (shown as a 464A Co-Operator processor in the drawing) are properly terminated, there will be significant degradation of stereo separation.

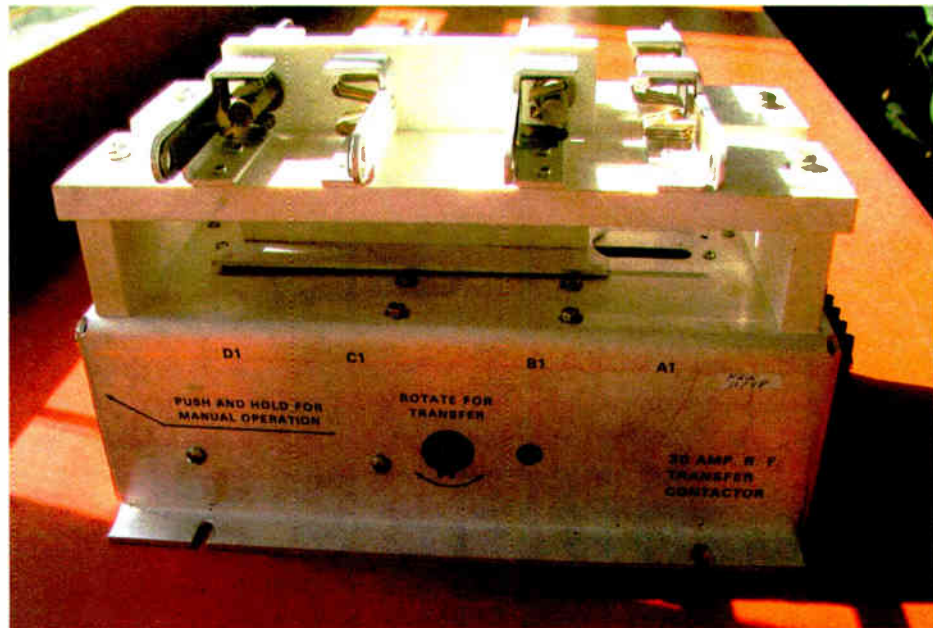
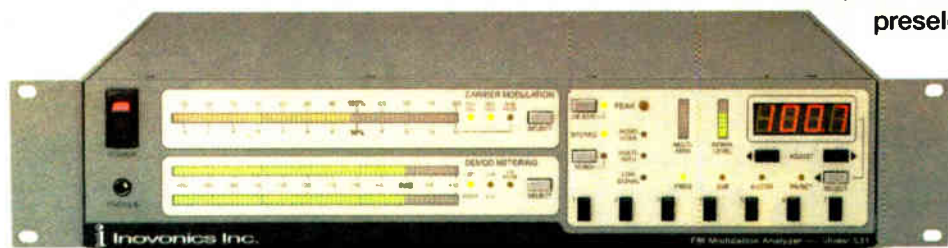


Fig. 2: Inspect this contactor to find out what's causing sluggish behavior.

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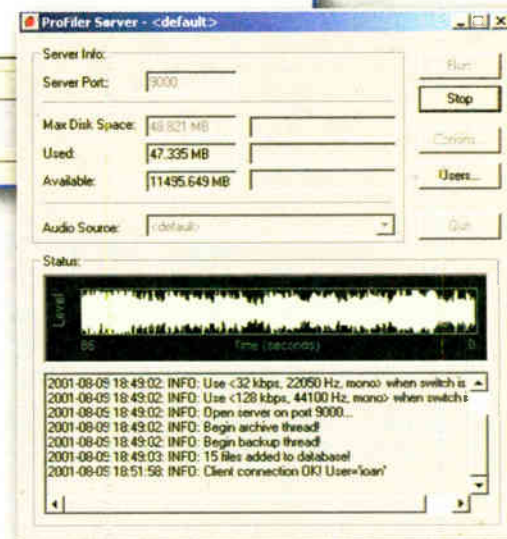
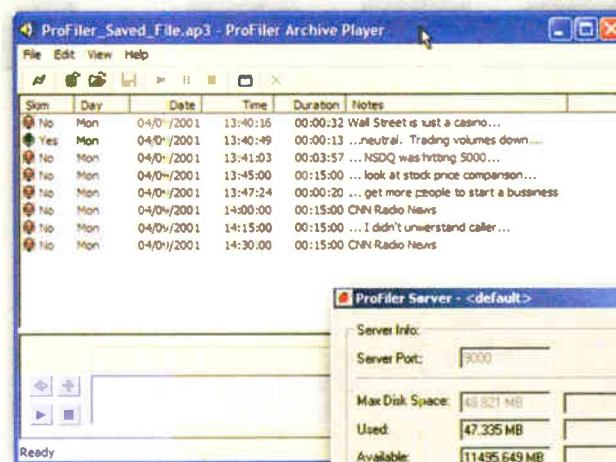
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World Radio History

SUPPLY SIDE

NewTek TriCaster: Video for Radio

The TriCaster, according to its manufacturer NewTek, "combines everything found in a television live truck into a box small and light enough to fit into a backpack." It promises simplified live switching and audio mixing, with real-time output to video, projector and the Internet, in a portable format that is easy to set up.

This product earned a Radio World "Cool Stuff" Award this spring. To help readers understand its application we asked a user, President Gil Chavez of Knockout Digital Media Inc. (KODM), about it. His company calls itself a "one-stop shop" for Internet marketing, production and broadcasting needs; clients

include ESPN Radio.

On its Web site KODM describes the TriCaster as its "production tool of choice," one that helped take its remote Internet broadcasts "to the next level."

When our judges gave the TriCaster a "Cool Stuff" Award, a lot of radio folks said, "Huh? What's that?" But the product is familiar to you.

Knockout Digital Media is pushing the TriCaster to extreme production limits, especially in the radio broadcasting world. As our broadcasts can take us from the toughest and most challenging of environments to the perfect, clean stu-

dio setting, the TriCaster's ease-of-use and portability allows us the opportunity to replace the "production truck."

When we have limited space and budget, the TriCaster is the ideal choice for production.

Knockout Digital Media is using the TriCaster as a major capturing tool, with its solid performance, as well as a top-notch encoder for live video streaming.

Why is online video important for radio broadcasters?

Video makes radio a better medium, the Internet does a better job delivering radio into your home — to your comput-

er work area and office. The end user loves to be able to watch video on the PC, on the go and at the airport, at their convenience.

For broadcasters wanting that extra exposure, online video is the way to go.

What should radio engineers or producers know going into projects like yours?

They need to be visionaries on the boundless limits of the Internet and its future direction.

If you can dream it, you can produce it. Online concerts for charity, special in studio shows, the list goes on and on.

We're told KODM presented live video programming from multiple temporary remote studios in Florida before the Super Bowl last winter. What had to happen technically for this kind of project?

A lot of pre-production planning, just as with any other production. Coordination of transmission lines, lighting, equipment, technical staffing and graphic design to complete the delivery.

Video makes radio a better medium, the Internet does a better job delivering radio into your home.

— Gil Chavez

Coordinating logistics between the ISP companies and telephone companies was a challenge. In order to deliver a successful online production you need high-speed lines and sufficient bandwidth, as well as a general idea of who your target audience is.

What are other applications for the system?

Production truck replacement is the big one. The TriCaster is the solution for productions in locations with limited space and in remote locations. We have found that comprises just about 60 percent of all productions.

What can a radio organization expect to pay for the equipment and services?

A station can expect to pay a fraction of the cost it takes to put on a regular live



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Lube

► Continued from page 16
 factors use a motor and gear assembly to move the contact arm from one set of contacts to the other.

Mike was experiencing sluggish activation and removed the gear/motor cover. The reason for the sluggish behaviour was that the lubricating grease had dried up, causing the gears to bind. Fig. 3 shows the dried grease Mike found on one of the gear assemblies.

After cleaning the gears, he re-lubricated the assembly with a synthetic grease, which is nearly clear. A "before and after" of the gear assembly is in Fig. 4. The dried grease can be seen on the gear assembly on the left, and the cleaned gears rebuilt and lubricated with synthetic grease on the right.

Since cleaning up the dried grease, Mike reports the contactors switch flawlessly.

If your phasor or ATU uses this type of contactor, Mike advises a periodic check of the gear assembly. The mechanical linkage of the old E.F. Johnson and newer Kintronic contactors should also be a part of your AM maintenance routine.

Mike Breitenstein can be reached at mikeb@ktrs.com.

John Bisset has worked as a chief engineer and contract engineer for 38 years. He is the northeast regional sales manager for Broadcast Electronics, and recently received the SBE's Educator of the Year Award for 2007. Reach him at (571) 217-9386, or jbisset@bdcast.com. Faxed submissions can be sent to (603) 472-4944. Submissions for this column are encouraged, and qualify for SBE recertification credit. 🌐

event production. On top of that, they can maximize their exposure with quadruple the audience. With the addition of the Internet to their delivery medium, and by using the TriCaster, they can minimize production costs substantially.

Radio staff are not video experts. Is that an obstacle?

It is not an obstacle at all. At most stations there is someone on the team who is technically and computer-savvy enough to become a TriCaster producer within 30 minutes of practice.

With the TriCaster, your creativity has no limits. With the Internet as your delivery medium, your boundaries have been knocked out. Enjoy producing with the TriCaster and allow success to come into your life.

For TriCaster information visit www.newtek.com/tricaster. For information about KODM, see www.knockoutdigital.com. 🌐



Fig. 3: Dried grease can cause sluggish operation.

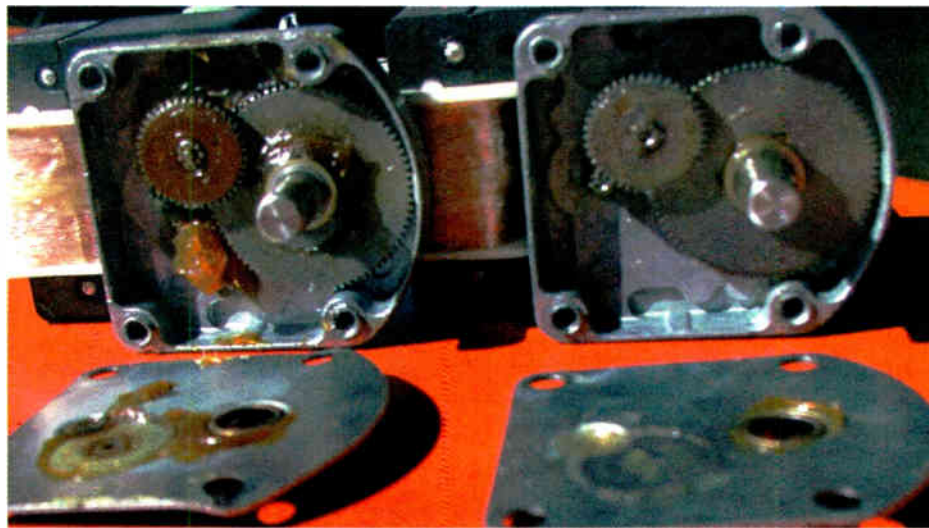


Fig. 4: Compare the dried grease, left, and synthetic lubricant on the right.

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Charlotte Radio: A Perfect Storm

Radio Engineers in This Rapidly Growing Market Juggle Multiple Hands-On Duties

by Sharon Rae Pettigrew

Looking for three words to describe radio in Charlotte, N.C., home of the recent fall NAB Radio Show? Try "significant market growth."

"We basically have a perfect storm," said Jobie Sprinkle, director of engineering for NPR affiliate stations WFAE(FM) and WFHE(FM).

"We have great market growth. It's just amazing. It's good for the market in general. Potential listenership is growing right underneath you."

When asked about challenges in the Charlotte market, Jerry Dowd said, "Probably the biggest obstacle in Charlotte is traffic. It's a long way down I-77 [to our transmitter site] in an emergency when you are doing 3 mph."

Probably the biggest obstacle in Charlotte is traffic. It's a long way down I-77 in an emergency when you are doing 3 mph.

— Jerry Dowd

Dowd is a man of many titles: manager, technical services/director of engineering for WBTB, WBT(FM) and WLNK(FM) — all part of the Lincoln Financial Media Co. of North Carolina.

Dowd also points to ice storms as a problem in the winter.

"Of all perils, ice damage has been the biggest issue for me," he said. "On the WLNK/WBTB 2,000-foot tower, it is not uncommon to see chunks of ice about the size of a refrigerator coming off the tower. We have some unique dents in the ice bridge to prove it."

Dowd also points to challenges com-

mon to many engineers.

"We all have had our share of copper thefts and break-ins over the years," said Dowd. "We all use security alarms, lots of fencing and are careful. The fact that we do late-night work has its issues with some of the transmitters in less-than-favorable areas."

So what makes the Charlotte radio market unique?

"The number of different HD systems that are in place and how they all work are different, and yet the same," said Dowd, whose WBT has been in the final stages of HD Radio testing for some time.

Stations in the market use a variety of channels. "We all stream, podcast, FTP and host Web sites, in one way or another," said Dowd.

He points this out because "it is so easy

to stereotype 'radio engineers,'" he said. "Oh, engineers — they work on transmitters, right?" Truth is, we all have a very unique skill set. I may be a manager and have staff, but I also am a hands-on engineer. My department handles IT ... the Web sites, studios, transmitters, building and grounds. All the things that make radio 'radio' in the new millennium."

The good guys

NPR's Sprinkle calls his fellow engineers in the market "good, smart guys. It's a pleasure to be in the market with them."

Sister supplier Telos Systems listed sales of Zephyr products to Minnesota Public Radio, the office of the mayor of New York, Clear Channel New Orleans and Rensselaer Polytechnic Institute in Troy, N.Y. ...

Bayshore Broadcasting in Canada ordered two Wheatstone Evolution 6 controls surfaces, one EN-8 Network Hub and three IOCs for its Goderich, Ontario, station. The group outfitted its Wasaga Beach facility with Wheatstone surfaces, switches and processors through dealer Ron Paley Broadcast. The customer is using Vorsis HD-P3 Audio Processors. ...

Logitek sold four Mosaic surfaces and five Audio Engine routers to Texas Public Radio. The company also reported orders from WSJM(AM) in St. Joseph/Benton Harbor, Mich., to expand a con-

These are busy men, though.

"We are close," said Sprinkle. "We may not get a chance to talk often, but we keep up with what everybody's doing."

Society of Broadcast Engineers radio membership in this market appears to be limited, due in part to the overwhelming responsibilities of these engineers.



Jerry Dowd with his favorite piece of 'equipment,' a Spector five-string bass.

"The last local SBE meeting was right here at the WBTB studio ... 119 feet from my office ... and I did not have time to attend."

Lincoln Financial's Dowd parrots what many engineers in the market have to say: "We stay so busy and have so many hats to wear; we just don't have the time." Despite these busy schedules, "we all share information and offer help, ask for help or just learn from each other."

Phil Woods, chief engineer at Radio One properties WPZS(FM) and WQNC(FM), agreed. "If you need a part, we're all more than willing."

Jeffrey Caudell, CSRE, is director of engineering for the Clear Channel Radio group in Charlotte, made up of FM stations WIBT, WKKT, WRFX, WLYT and

WEND.

"The pool of engineers in the market is relatively small," said Caudell. "In fact, a few of my former coworkers are now employees of the competition." Yet he said while he has to be careful not to divulge any trade secrets, "we often discuss our current issues and problem resolutions."

Caudell, who is a member of the local SBE chapter, also attends few meetings. "Timing is also usually the issue for me,"



Jobie Sprinkle

he said. "The chapter meets once a month at lunchtime. However, with five stations, issues can pop up at the last minute that require immediate attention."

Caudell said in his opinion, "Our chapter's events lean heavier to the television side, possibly because the officers work in the band. Of course, if my fellow radio guys and I were more active, there would likely be a better balance."

Dowd said the SBE offers a good number of local meetings and an active chapter. Sprinkle is a past chapter chairman and maintains his membership, but also doesn't attend local chapter meetings on a regular basis, again due to workload and time constraints.

So where do these guys socialize? Most of them get together a few times a year at nearby SCMS, which recently bought the Harris Broadcast Center vendor division, for barbeques and the like.

"They're in Pineville, about eight miles from downtown," said Woods. "They throw a Christmas party where we all get together."

This story originally appeared on Radio World Channels.



Continental Electronics recently won a \$1.48 million contract from Mississippi Public Broadcasting to install eight transmission systems.

Bob Buie is director of technical services for Mississippi Public Broadcasting. Install is by Continental with assistance from Mississippi Authority for Educational Television. The project manager is Will Collins, Richard Garrett is installation supervisor. All stations will include the Continental 816HD analog/HD transmitter; HDe IBOC Exporter; Nautel M50 Digital Exciter, Orban 8500HD Audio Processor and RCS IBOC Importer. ...

Recent buyers of Omnia audio processing products include KNPR(FM) in Las Vegas, using an Omnia One Multicast; KEOK(AM) in Tahlequah, Okla., and WAXX(AM) in Eau Claire, Wis., both using Omnia-3AMs; and WNIJ(FM) in Dekalb, Ill., with an Omnia-6EXi HD+FM Digital.



DOE Robert Coyne at Bayshore Broadcasting's 'The Beach'

sole system with the purchase of Remora, Mosaic and vMix control surfaces; and ISP Sports in Winston-Salem, N.C., which bought four Audio Engines and Remora-10 surfaces. ...

Oregon Public Broadcasting is using the Trumba Connect for its online OPB Community Calendar. Trumba Connect helps media increase awareness of events and connect them with listeners through tools like a hosted, interactive Web calendar, event submission forms and reporting services. ...

Software company SDS said RNC Media Inc. will use its broadcast management system on the network's 16 radio stations in Quebec and Ontario. RNC Media already uses the SDS Symphony at its five television stations. The bilingual system integrates sales, traffic, programming, finance and operations.

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World Radio History

RADIO IT MANAGEMENT

Polish Channel Launches NetRadio Demo

by Cesco van Gool

The idea is simple, and advocates say it could work for public regional services all over Europe.

Mirosław Ostrowski, technical director at public regional broadcaster Polskie Radio Wrocław, is an enthusiastic ambassador of NetRadio, determined to get a NetRadio project on the road as soon as possible.

In short, the concept is to enable listeners to compile their own programs from all current and archived content of participating stations.

Varied mix

Listeners set their preferences and choose from the varied mix of audio supplied by the 17 regional services of Polskie Radio. Then the system automatically collects that audio from the central server and streams it to a PC, handheld device or, soon, 3G-enabled in-car devices.

Polskie Radio Wrocław is a regional service operated by the Polish public-service broadcasting corporation.

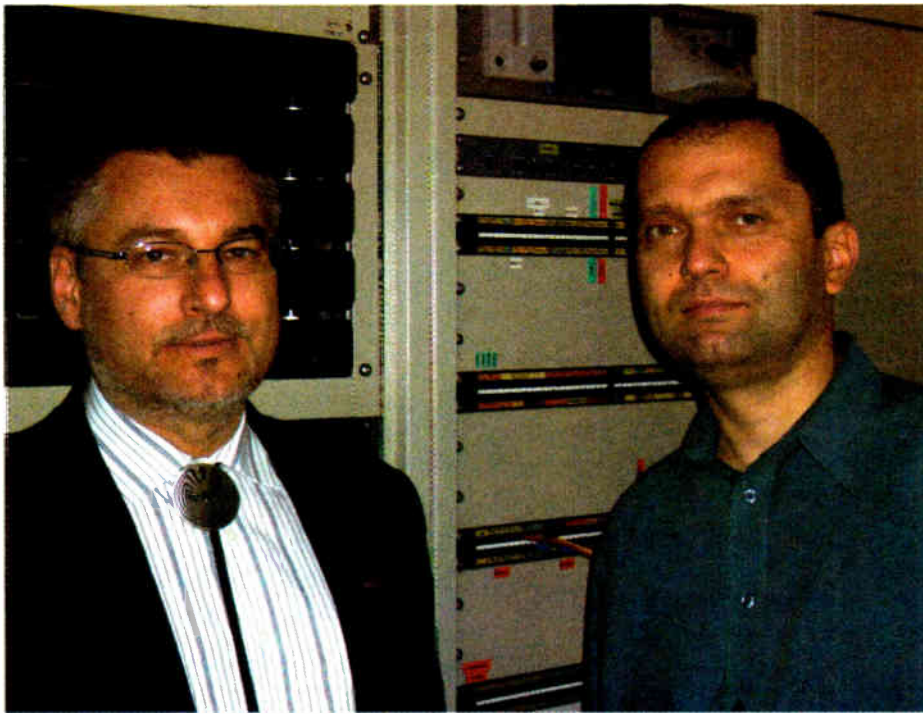
"With this plan, we turn a limitation — the fact that public regional broadcasters are obliged to serve all possible listeners but only in that particular regional market — into an asset," said Ostrowski.

It's an interesting solution to a problem that may seem foreign to U.S. readers. By law, Polish public regional stations have to broadcast programs for an audience as wide as students, young families, children, farmers, businessmen, housewives and elderly people.

In the "linear" world, this results in large numbers of listeners tuning out once the next program, aimed at a different target group, starts.

"In the digital 'nonlinear' world, however," said Ostrowski, "we can use the richness of our combined programs to super-serve all audiences, including the millions of Poles who are working abroad."

Most PR regional stations have digi-



Mirosław Ostrowski, technical director, and Jan Gil, manager of the IT department of Polskie Radio Wrocław, are the forces behind NetRadio.

tized the whole production process, up to the actual transmission of the signal.

Because spectrum designated for digital audio broadcast after 2014 is still in use — even licensed to new, analog television stations — the prospect of this spectrum being available at the date foreseen by planners exists only on paper.

Fundamental differences

In the meantime, Internet and 3G offer new possibilities to reach those listeners who are interested in part of the programming but do not want to listen to the rest.

"All we need to do," said Ostrowski, "is to make sure we properly categorize all audio that is being broadcast, then give listeners a tool with which they can compose their favorite mix of content and then stream that personalized audio from our servers to their PC, handheld or 3G/WiMax-enabled in-car audio set."

Though the basics may look like a

podcast, there are some fundamental differences. There are no complete programs, only "audio blocks" that belong to a certain category of programming — sports, politics, local news — and music categorized by genre.

The user defines the ratio of every theme he or she wants to listen to, for example 10 percent sports, 10 percent international news, 10 percent local news from Krakow and 10 percent from Warsaw, 30 percent cultural programs, 10 percent jazz and 20 percent rock.

The system will then select the most relevant audio blocks and start to create an audio stream. It will continue to select new blocks of audio as long as the player is "tuned in" and will mark what blocks the listener has listened to.

This way, two listeners with exactly the same preferences will receive different audio streams depending on when they start listening and what audio they have listened to before.

Centralized archive

To be able to do this, however, it will be necessary to overcome several hurdles.

One of them is that the stations use dif-

ferent automation systems, from vendors such as VCS, Dalet and D.A.V.I.D.

All systems use their own logic to attach metadata to the audio and to store and archive broadcast audio.

One solution could be to build on ICIRP, the existing structure used to share audio files between public regional stations.

This platform works automated and was developed by Ostrowski and Jan Gil, IT specialist at Polskie Radio Wrocław, when the stations found that the existing audio exchange platforms lacked flexibility or were too expensive. But other options for a joint centralized archive are being explored as well.

Responsible for the development of the server side and network part is PCSS, a supercomputer center in the city of Poznań that also developed the backbone for the Internet portal of the Telewizja Polska public-service television company.

"PCSS immediately saw the perspective in this project and started working on a first demo server, even before we secured support from all stations," said Ostrowski.

Strong aspects

The funding of the project is a delicate issue for these cash-strapped stations. The general feeling, however, is that after a short introduction period, the system will finance itself, either by advertisements or by listeners who choose to pay for commercial-free programs.

According to Ostrowski, one of the strong aspects of NetRadio is that Polskie Radio will know exactly what people want to listen to.

"It will deliver us marketing information no other research could give us," he said. "We will know what program items are popular with what type of listener and we will even be able to individually target commercials."

Another source of revenue could be the licensing of this system abroad.

A demo system was expected to be up and running by November. Poland will have seen parliamentary elections by then, meaning that board members at many of the public regional stations will change.

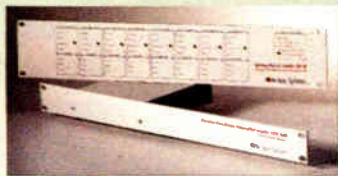
Consequently, Ostrowski and his partners may have their work cut out convincing these new board members that this system is worth investing in.

Cesco van Gool reports from the Netherlands and Poland. E-mail him at cescovg@dragan.pl.

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MARKET PLACE

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Henry Engineering says it has a solution to the problems encountered when using a "live music" or PA-type audio mixer in a broadcast environment.

The company's Mixer Mate adds three functions to the mixer. It provides on/off control of up

to four microphones; mutes the monitor when a microphone is in use; and provides control of "On The Air" studio warning lights.

Additionally, the Monitor Mute Programming feature lets the user program which mics will activate the Monitor Muting function.

Mixer Mate is compatible with mixers that provide a "Process Insert" facility on the mic channels. It lists for \$195 and is in stock now.

For more information, contact Henry Engineering at (626) 355-3656 or visit www.henryeng.com.

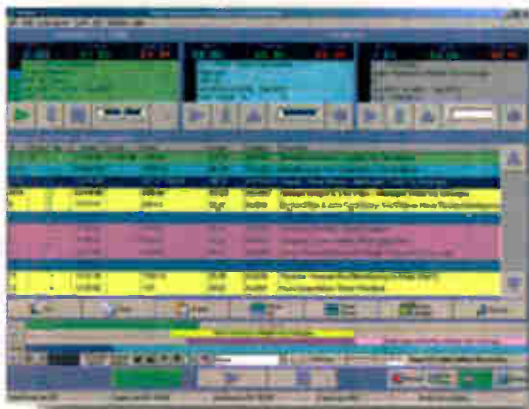


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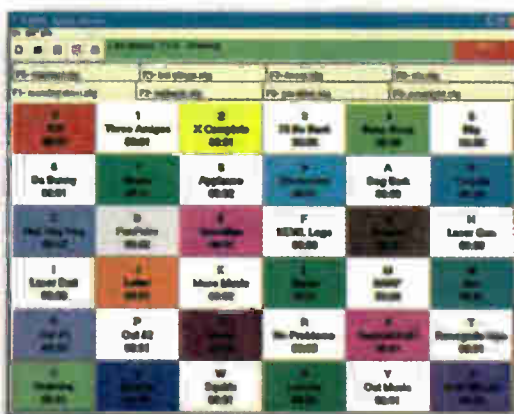
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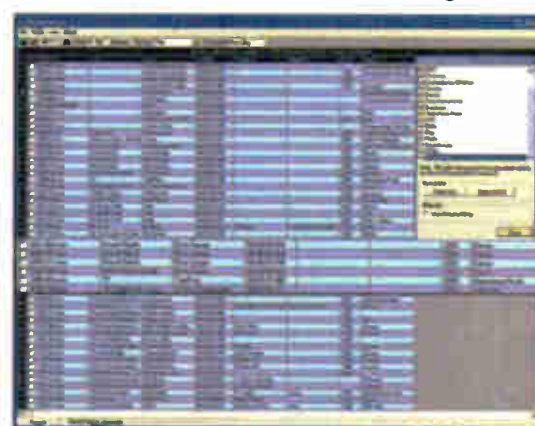
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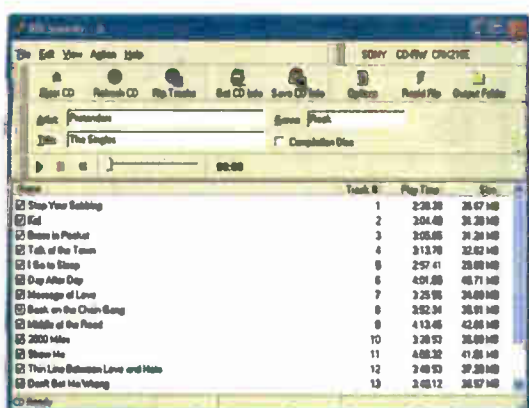
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Singing the Buggy-whip Blues

The Music Industry Continues to Search for a Business Model That Fits Today's Technology

At a recent conference presentation on the future of the music industry, a fellow panelist asked the audience if they agreed with his contention that it had now "become voluntary to pay for music."

This provocative statement brought into clear focus the magnitude of change that the music industry has undergone in recent years — and by the way, no one disagreed with him.

The music industry faces a unique challenge, in which external forces have conspired to eviscerate its traditional

business model, while everything else around it remained largely the same.

Neither supply nor demand for music has abated — if anything, they have both grown — but through a strange set of combinational circumstances, the context within which the industry monetizes this process has shifted, and revenue thereby produced has dwindled substantially. Although some in the industry like to point fingers in blame for this predicament, no one element is wholly responsible.

Meanwhile, musicians continue to cre-

ate music, and consumers continue to listen to it via a growing number of venues and platforms, but the traditional marketplace has almost disappeared.

It's as if people suddenly sprouted wings and began flying themselves to distant destinations. They are still traveling just as much or more, but the airlines can't fill their seats.

Sustainability

Certainly this is not the first time that new technology has caused an established business to suffer losses.

The classic case of the automobile's impact on the buggy whip is fairly apt to the music industry's woes here. But the

The Big Picture



Photo: Cory Hayes, BBC

by Skip Pizzi

music industry's revenue flow is far more arcane and complex than the simple sale of a tangible product.

It is a complicated arrangement that includes musicians, composers, producers, studios, talent scouts, licensing agents (at multiple levels), concert promoters, broadcasters, manufacturers and lawyers — lots of lawyers. So some deconstruction is in order.

First, consider that when we talk about "the music industry," we usually think of the labels, but clearly the industry's scope extends well beyond this. Thus any attempt to re-engineer the industry must be holistic and fully inclusive.

The labels do play a key enabling role, however, adding value to the whole industry primarily through their processes of aggregation. But now the very need for this "middleman role" is being questioned, as both artists and consumers seek their respective individual paths for access and commerce with one another.

Therefore the labels are at ground zero of this transition's impact, and are shouting the loudest about it.

Yet they are not alone. Radio has also played an important part in the traditional music marketplace, so as the current disaggregation trend continues, radio's value as a collective promoter of content may also diminish.

The key to survival of this ecosystem is how sustainable the replacement business model will be. Or perhaps a better way to phrase this is whether such sustainability will flow from the entire *range* of new models as a whole, because it already seems evident that there may be myriad new approaches in concurrent use, and that no single replacement approach will prevail.

Recent months have provided much to examine in this respect.

One notable foray is Radiohead's label-free, self-release of its much anticipated album "In Rainbows" as an unprotected download or a premium-packaged CD.

Even more groundbreaking was the band's pricing of the download at whatever the downloader wants to pay, from free on up. This first overt application of true voluntary payment occurred a few weeks after the discussion at the conference noted above, and to date, the average "In Rainbows" downloader is paying about \$8.

Meanwhile, other artists from Madonna to Trent Reznor have announced they will forego their traditional label arrangements and seek some method of independent access to customers.

Yet another approach is the flat-rate subscription model, whereby a consumer has access to a selection of music content for a fixed monthly fee. This is more of a rental than a purchase model, however,

See MUSIC, page 25 ▶

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Music

► Continued from page 24

since most of today's subscription services do not allow unfettered copying of content (i.e., no burning to CD).

A variation on this scheme allows blanket licenses to be purchased for music usage (including fair-use copying) by large, contained groups of users, such as college campuses. Some have suggested that this approach be applied to ISPs for all their respective customers, and the costs recovered in the fees that the service providers' charge to customers — like a tax or surcharge.

Still other options include traditional paid music downloads but without digital rights management, so once purchased, no restrictions are placed on the music's usage by the customer. This more consumer-friendly approach seems to be gaining traction, and it is no less secure a digital format than the CDs the industry has been distributing for a quarter of a century.

At perhaps the extreme end of the spectrum is the idea that music downloads should be universally available for free, and revenue to the music industry would come from concerts and collateral sales.

For sale by owner

Again, the most likely outcome is some assortment of the above, including a bit of the old model and several coexisting variations of the new.

There's plenty of room for variety, especially when you consider that some models will apply best to well-established artists, while others will be preferred by emerging talent.

Another useful analogy is the residential real estate market, where some homeowners prefer the FSBO (For Sale By Owner) approach, but many still go with a traditional Realtor. And there are agencies somewhere in between, helping FSBOs via aggregated listings and other services. A few "lightweight" indie labels or Web sites are analogous to the latter, such as Magnatune.com.

From a loftier perspective, one could observe that the value of aggregation is now simply moving downstream. Time was that artists needed a recording contract to even get their songs recorded, let alone promoted and played on the radio, then pressed and shipped to stores. The enormity of the entire industrial process made it impractical for individual artists to consider doing any of it themselves.

Not so today, where about the only place even an emerging artist really benefits from reliance on an aggregator is in the "last mile" to consumer — i.e., the music stores, either physical or online.

Established acts don't need even that aggregation, as Radiohead's sales of millions of copies of "In Rainbows" as an end-to-end independent effort has shown.

Old moguls, new revenues

This is not to say that the traditional powerhouses of the music industry will go quietly into that good night.

The RIAA continues to plow every field that appears remotely fertile, from suing users of unauthorized distribution sites to pushing for legislation and regulation that would mandate new royalties (including new performance royalties from local radio broadcasters).

Meanwhile the labels themselves are

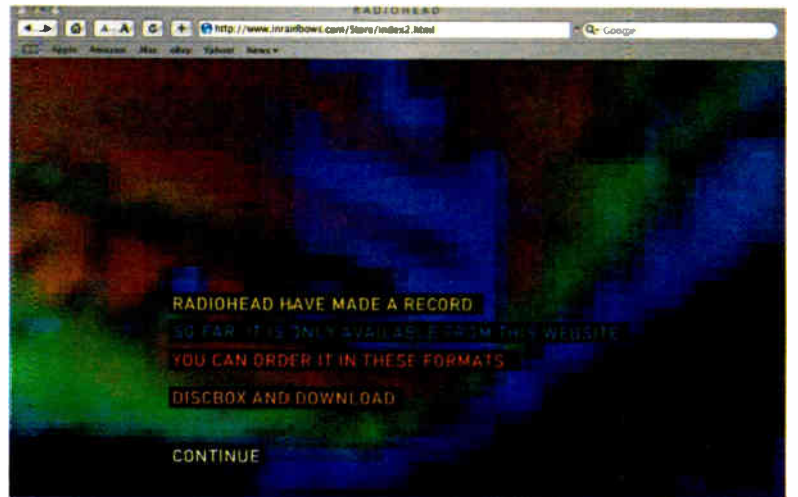
pursuing a range of new revenue opportunities, as Chris ("The Long Tail") Anderson recently noted in his blog.

He points out that while CD sales are indeed off, many other monetized industry elements are experiencing strong growth, such as concert tickets, promotional merchandise, digital music downloads, ringtones, licensing of music for commercials, TV shows, movies and video games, revenue from hardware (sales of some satellite radio receivers and MP3 players generate royalties to labels), and even vinyl singles — lots of club DJs out there, apparently.

A new reality is settling in for the music business, and there is certainly no shortage of differing reactions to it. Whether the old players adapt or a new industry emerges remains to be seen. In any case, the status quo is no more, and there will likely be no return to it.

Next time we'll look back at some of the other key issues that came to the fore in 2007 in our Big Picture year-end review.

Skip Pizzi is contributing editor of Radio World.



Radiohead self-released its album 'In Rainbows' as an unprotected download or a premium-packaged CD, involving no record label. Downloaders could set their own price.

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FIRST PERSON

Tales From the Electronic Cold War

Adversaries Deployed Jamming in Attempt to Thwart Incoming Broadcasts

by David L. Hollyer

The author is former managing director for Spain of Radio Free Europe/Radio Liberty.

"Can they hear us?"

That was the question on the minds of U.S. shortwave broadcasters beaming programs into "Iron Curtain" countries during the Cold War.

Given the barrage of "jammers" —

electronic noise-makers operated by our communist adversaries — were our signals heard? Were they getting through?

Yes, and more often that one might expect. We could tell by letters received from listeners beyond the Iron Curtain.

One might think such letters could not get through to Radio Free Europe and Radio Liberty; and certainly vigilant postal censors in those oppressed countries would be watching addresses of outgoing mail, to pick up any sent to our

broadcasters.

But would they stop and open an envelope addressed to Jacques Moreau in Paris, Pietro Nuncio in Milan or Helmut Swanson in Stockholm? Probably not. Those were typical "accommodation addresses," announced on the air and changed frequently. Letters addressed in this fashion did get through and ended up in the hands of the broadcasters.

Checkpoints

The letters often told Western broadcasters about how our signals were being received or how badly jammed we were.

But Radio Free Europe and Radio

Liberty wanted regular reports from monitors on the periphery of the communist countries; so the organizations also operated "Checkpoint Monitor" stations at several locations.

There were monitors in Helsinki; in Lappeenranta, Finland; in Vienna, Austria; in West Berlin; and in Trabzon, Turkey. To listen to broadcasts originating from its facilities in Taiwan, Radio Liberty maintained Checkpoint Monitor facilities in Sapporo on the island of Hokkaido, the northernmost island of Japan. I visited all of these stations.

The monitor logs, sent back to broadcast headquarters, could be discouraging, revealing heavy jamming on all broadcasts, 24 hours a day. But checkpoint monitoring was not representative of the quality of signals received in the target countries. There was a different scheme used to verify that.

The Voice of America had personnel stationed in the target countries. Typically they were permitted by local authorities to drive on local roads, within defined limits; as I recall, Americans in Moscow could drive if they stayed within 25 miles of the center of the capital city.

The letters often told Western broadcasters about how our signals were being received or how badly jammed we were.

These personnel enjoyed "diplomatic immunity" and could use a battery-operated shortwave receiver in their autos to listen to Voice of America Russian broadcasts. Who would know if they also slyly tuned to Radio Liberty frequencies and noted times and quality of the transmissions?

For sure, the Russians suspected this.

One individual who performed this type of foreign monitoring was a man we'll call Nick.

One afternoon as he slowly cruised back streets of Moscow listening to a Radio Liberty broadcast in Russian, Nick passed a side street on a hill. He saw a big truck barreling down the steep side street and assumed it would stop at the sign.

It didn't, and it smashed broadside into his small car, almost turning it over. The car had no seat belts or air bags, so Nick took a big hit.

He crawled from the wrecked car and was amazed to see a Russian hospital ambulance already on the scene. Positioned ahead of time? Probably. As Nick told me shortly afterwards in an interview in Helsinki, his arm in a sling, "This Russian lady doctor in a white coat came toward me with a big hypodermic in her hand, which she obviously intended to use on me."

"For pain. Is good!" she told him.

"Nyet! Keep away from me with that needle," Nick recalled saying. "Telephone the U.S. Embassy."

She remonstrated but eventually called embassy staff, who carted Nick off to their dispensary.

See JAMMING, page 27 ►

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Jamming

► Continued from page 26

I asked him about his injuries. "Oh, a broken arm and a dislocated shoulder," he told me. "But if they had given me that shot, who knows what would have happened?"

He felt certain the accident had been planned. "But I didn't give them the radio," he concluded with a grin, "and I flipped the tuning dial off the Radio Liberty frequency I was monitoring."

A rough business, handled with aplomb.

What's the buzz?

Jamming was not a new technique; it'd been in use at least since World War II by governments that wanted to damage enemy broadcasts.

A common method was for the jammer station to transmit a grinding noise; this was called a "buzzsaw" jammer and did a pretty good job of destroying the intelligibility of a broadcast.

Sometime in the 1960s a new type jamming was introduced. Communist countries simply put a strong carrier adjacent to the signal to be jammed. Sometimes the frequency separation was 500 Hz. This produced a strong heterodyne, which pretty well damaged the intelligibility of the jammed signal. At other times the jammer was situated about 1 kHz adjacent in frequency.

The Western broadcasters had complained to the United Nations that the Soviet Union was the source of most jamming; the U.S.S.R. had denied it, and now said it was not the source of this "heterodyne" jamming.

After a while the new type of jammer was modulated with music and news program material. The communist government said this was normal, "co-channel" operation and inadvertent interference.

Generally, the modulation was program material from a new broadcast service called *Maihak*, a Russian word for beacon or lighthouse; the content was light music and news. Although this was different from the old "buzzsaw" type, the "maihak" jamming was equally effective in destroying the intelligibility of the broadcast.

There were occasional breaks for Western broadcasters frustrated with jamming. As twilight approached, the sun might still be shining over Western Europe while the sky was turning dark in the Soviet Union. During this short period, a condition called "twilight immunity" occurred.

The height of the ionosphere, the ionized reflecting layer that made shortwave transmission possible, was different above the jammer than in the West, so the skywave jammer's signals skipped over the desired target area of the Soviet Union. Within this period, the jamming was less effective and Western broadcasts were audible.

The U.S.S.R. also operated mobile jammer stations in trucks in its large cities and used these to jam reception locally in target cities.

TV talk

The operation of Checkpoint Monitor stations offered some unexpected benefits.

On one of my visits to the Helsinki station, a Mr. Lindberg, our monitor there, mentioned that he could receive a

good television signal from Tallinn, Estonia, about 50 miles across the Gulf of Finland from Helsinki. The station regularly carried Russian TV programs. Unfortunately the monitor could not receive audio on the TV program because

recorder on the market. Maybe, just maybe, we could give the monitor a TV receiver modified to receive Russian TV along with one of the new video recorders, so he could tape Tallinn TV.

It took a little longer to get everything

A common method was for the jammer station to transmit a grinding noise; this did a good job of destroying the intelligibility of a broadcast.

Soviet TV technical standards were different from those in Finland.

A bright light went on in my head. I recalled that Ampex had just put a reasonably priced helical scan video

set up than to write about it, but eventually we got him the modified receiver and video recorder, which Ampex delivered in Helsinki.

A Soviet TV newscast at 10 p.m. orig-

inated in Moscow and was carried by Tallinn on the "Moscow 4" program. We waited eagerly for the show to go on the air, then taped it, producing a beautiful copy in the Russian language (which neither of us could understand, of course).

Lindberg had talked to the Finnair representative and learned that he could take the recorded tape to the Helsinki airport at 11 p.m. and get it on a morning flight to Munich. The tape would arrive at 11:30 a.m. In Munich Radio Liberty had arranged to receive the tape and get it through customs quickly and couriered to our Munich offices.

There we could put it on our internal TV cable system and feed it to the Russian editors' TV sets.

It took it awhile to iron out the kinks but soon we had a daily scheduled

See JAMMING, page 28 ►

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What's the Deal With Exposure Limits?

by Richard Strickland

This is the fourth in a series of Q&As with Richard Strickland about RF safety; the series is archived at radioworld.com.

Question: The FCC has two sets of exposure limits, often referred to as the occupational and public limits. Can a station assume that all its employees may enter any area providing that the RF field level is below the occupational limit?

Answer: No, you cannot assume that all employees and all areas restricted to employees qualify to use the higher limits.

The two sets of exposure limits in the FCC Regulations are for Occupational/Controlled (occupational) exposure and General Population/Uncontrolled expo-

sure (public). The limits are referred to as Maximum Permissible Exposure (MPE) limits.

The FCC uses two criteria to determine whether the higher occupational MPE limits can be used. The FCC states that the area should be a controlled environment. A controlled environment requires that an appropriate safety program be in place — in this case, an RF safety program. And since a key component of any safety program is training, this means that only trained personnel

should be allowed into any area that exceeds the public MPE limits. While the FCC encourages developing and implementing an RF safety program, it is not something that is rigidly enforced. The other criteria that the FCC use and are part of the FCC Regulations are based on the training, knowledge and support equipment of the personnel involved.

The FCC regulations state that only fully aware workers who are able to exercise control over their exposure should be allowed to be exposed to RF field levels that exceed the public MPE limits. These two important terms are in the regulations but are not well explained. A Notice of Proposed Rulemaking that was issued in June 2003 and has been awaiting the FCC chairman's signature for over a year includes clarification of what

the FCC expects.

The FCC states that "fully aware" means "that an exposed individual has received written and verbal information concerning the potential for RF exposure and has received training regarding appropriate work practices relating to controlling or mitigating his or her exposure."

The FCC also states, "We propose to specify that 'exercise control' means that an exposed individual is able to reduce or avoid exposure by administrative or

engineering work practices, such as use of personal protective equipment or time averaging of exposure."

In the safety programs that I develop for clients, I usually use a simple color-coding system that dictates who can go in certain areas:

- Green Zones always have RF field levels below the public MPE limits. Anybody can be in a green area at any time.

- Yellow Zones may have field levels that exceed the public limits but are unlikely to exceed the occupational limits. Only fully aware workers who are able to exercise control over their exposure should be allowed in yellow areas.

- Red Zones may have field levels that may exceed the occupational limit. The simple answer is that nobody should be allowed in these areas unless power is reduced or shut off. In practice, people can be allowed in these areas if they know what they are doing. This includes knowing when and how to use RF hazard protection equipment, such as RF protective garments and RF personal monitors, as well as understanding how to use time averaging effectively.

A perfect example of a Red Zone is a tower with FM and television antennas on it. Towers may also contain some wireless system antennas. A climber can move quickly past certain antennas providing that the time-averaged exposure is either below the occupational MPE limits or less than 10 times the occupational MPE limits (1,000 percent) for a climber wearing an RF protective garment.

People who go on building rooftops, such as HVAC and elevator repair personnel and window washers, may be "occupational" personnel, but they are unlikely to know much about RF energy. So they would not qualify as being fully aware or having the ability to exercise control.

Spotlight On



The same could be said for many people in the broadcast field. Although they may know a little about RF energy, you have to be objective in determining whether they meet these criteria. If they have not received RF safety training, they definitely do not.

Richard Strickland has presented more than 150 public and private seminars on RF radiation safety and has written numerous articles on this topic. *Spotlight on RF Safety* appears regularly in *Radio World*. E-mail questions or suggestions to the author at rstrick@rfsafetysolutions.com.

The FCC regulations state that only fully aware workers who are able to exercise control over their exposure should be allowed to be exposed to RF field levels that exceed the public MPE limits.

Jamming

► Continued from page 27

recording couriered to Munich and played to the Russian editors. They were ecstatic and considered it a window on the Russian world.

If there was an important conference in Moscow, Russian TV reported it — and we got it. Our Russian editors could find out who was on the speakers' rostrum and who the invited guests were. They were delighted that they were able to comment on events occurring the previous night in Moscow.

This was an unanticipated bonus from the Helsinki Checkpoint Monitoring station.

Lots o' watts

And so the electronic cold war continued.

Our enemies were clever and determined adversaries. The Russians built additional, more powerful jammers. The Americans increased power of some of our shortwave transmitters up to 1 million watts. High-gain antenna arrays multiplied power as much as a hundred fold, bringing the effective radiated power up to a staggering 100 megawatts.

Our mail pull increased consistently; so if we weren't winning against jamming all the time, we felt we certainly kept even.

The mighty jamming effort in the Soviet Union was sustained only at a tremendous cost. The BBC has estimated that at the height of the Cold War, the Soviet Union operated more than 200 jammer stations requiring about 600 million watts of power to operate — power badly needed by Soviet industry and the beleaguered economy.

This real war was fought with words and technical know-how, and the West was destined to win in the long run.

David Hollyer wrote for *RW* in 2003 about the pending demise of the Radio Liberty facility at Playa de Pals, Spain.

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WHO'S BUYING WHAT?

Klotz Gets Into The White House 'Pool'

Klotz Digital's Varizone digital audio distribution system was installed in the James S. Brady Press Briefing Room in the West Wing of the White House.



The installation was part of recent major renovations of the press facility.

The Varizone matrix controller is computer-controlled and configured to handle analog and digital audio I/O, as well as DSP and mix functionality requirements. It accommodates audio sources including the feed from the podium as well as ceiling mics for questions.



The Varizone matrix controller at work in the Executive Mansion.

It also facilitates a press location just outside, an event feed from off-site presidential events and the central control at the rear of the room receiving feeds from other locations.

Pick-up mics and new loudspeakers over the seats balance sound and eliminate the need for boom microphones. Incoming audio sources are processed, if applicable, mixed and routed to destinations, e.g. speakers inside the briefing room.

The Brady Press Briefing Room is a small theatre, converted into a press room around 1970. It is named after Jim Brady, who was shot and disabled during an assassination attempt on Ronald Reagan.

Famously, the room was built as a swimming pool area for FDR in the 1930s; now the space below the floor is used for the rack-mounted electronics, allowing wiring to support telecommunications and broadcast TV.

The Varizone infrastructure was designed to interface with destinations relevant for media and broadcasting such as satellite uplinks, recording feeds and press booths. Each press control room operator can select an audio source from an eight-button wall-mounted controller to assign source destination, format and level while monitoring audio through an addressable digital amplifier module driving an Atlas Sound loudspeaker.

Via an integrated press call, a White House official can inform journalists in the press booths when a press conference will start.

The Varizone digital bus architecture allows eight channels of simultaneous 16 bit 44.1K digital audio along with power for local amplification and a data stream for system monitoring and control all on the same Cat-5 cable infrastructure.

Atlas Sound, part of Mitek Corp., is the exclusive North American distributor of Klotz Varizon.

MARKET PLACE

Nautel Offers NX Series Digital Transmitters

Targeting high-power, medium-wave radio broadcast uses, Nautel Ltd. has released its NX Series transmitters.

The company said these products are designed with HD Radio and Digital Radio Mondiale as integral features. It called the line the first to assume digital transmission as standard for high-power medium-wave applications.

Power outputs range from 100 kW to 2000 kW.

Features included AM adaptive precorrection, which Nautel says is a first in high-power transmitters: AC to RF efficiency of 90 percent; high linearity thanks to a nine-phase



Direct Digital Modulation scheme that is encoded at 2.7 mega-samples per second; intuitive touchscreen control and remote Web access; and a space-efficient design.

The NX800 version provides what the company calls the largest single-ended transmitter power output available, 800 kW. Multiple transmitters can be combined for 2000 kW.

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Vocalo.org: From Web to Broadcast

To Reach New Audiences, NPR Affiliate Launches Listener-Programmed Station

by James Careless

When it comes to listenership, Chicago Public Radio WBEZ(FM), a news and information station at 91.5 MHz, is popular in the city's more affluent and highly educated North Shore suburbs, but less so elsewhere in the Windy City.

The reason? According to focus groups conducted by the station, its NPR programming doesn't appeal to the city's less affluent, racially diverse population.

"The truth is that the traditional public radio sound is not resonating with everyone," says the station's Wendy Turner. "Our research suggested that we needed to do something radically different to reach them."

In response, Chicago Public Radio has done two things most broadcasters wouldn't dream of.

First, it converted a 7,000 watt station, WBEW at 89.5 FM in Chesterton, Ind., into a standalone format called Vocalo.org.

Second, under Turner, Vocalo.org's general manager, CPR has turned the new station's program production over to its listeners.

The on-air content is being produced by people who sign up to the station's Web site, then submit material for Vocalo.org to use. Some is in the form of audio transferred online or by e-mail. Other content is sent in as text.

The concept

Vocalo.org launched in June. A Daily Herald newspaper article called Vocalo.org "the changing face of public radio, or rather, the antithesis of public radio's rather stodgy modern image," where pledge drives never exist "and where bar fights make for fine on-air fodder. ... Sort of a radio YouTube meets Al Gore's Current TV."

Torey Malatia, president and general manager of Chicago Public Radio, presented the "public service challenge" and vision for the project; the CPR staff developed components of the format and its structure.

CPR's IT support specialists, maintenance engineer and Web developer helped build systems to integrate the broadcast and Web site.

The annual budget is around \$2 million; most of the start-up costs are being covered by foundation support and philanthropists. The economic model, officials say, includes a "sustainable funding" plan supported by sponsors, partner organizations, e-commerce and events.

Organizers say Vocalo.org is more than an attempt to win loyal listeners by getting them involved on-air. It is



The On-air Team of Vocalo.org

an application of the social networking phenomenon popularized by MySpace and Facebook.

On these well-publicized sites, members post their own profiles, see the profiles of others and communicate with each other in cyberspace, forming a virtual community in the process.

In the Vocalo.org model — created with software and support from Optaros Inc. (www.optaros.com) and the Chicago Technology Cooperative (www.chicagotech.org)

See VOCALO, page 33 ▶



The site name suggests a combination of 'voice' and a Mexican word, zocalo, a town square or plaza.



Usama Alshaibi — 'born in the Middle East, raised in the Middle West, living in the age of international terror' — is a Vocalo host and filmmaker. Studs Terkel profiled him in the book 'Hope Dies Last.'



MusicMaster is the next generation of music software. It is powerful, easy to use, intuitive, multi-tasking, and best of all, it produces great logs with less editing time. I especially like the optimum goal rules that automatically work your library for proper balance as well as the wizard that analyzes not only rules but also schedules and suggests improvements. The "instant analysis" feature lets you see at a glance what percentage comprises each hour of any attribute you define (e.g., sound codes, tempo codes, etc.). MusicMaster gets the job done—the right music product is essential to ratings success.

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FIRST PERSON

'Dixie' at the End of the Broadcast Day

In the Palmetto State, Memories of Doing Small-Town, Top 40 Radio

by **Stu Wright**

You have been in the radio business a long time when you remember ...

Sign-on blues

... You came in hung over. No one had replaced the coffee, sugar or creamer that had run out the day before. The teletype was jammed, and after fixing it you would have ink on your hands for two days — if you could get the dang thing operating in the first place.

Nothing like hearing the first two songs of the morning run out while you fight a running battle with the AP machine.

You'd also become a meteorologist as you made up something close to a believ-

able weather forecast.

Even more fun was when the transmitter would fail to come on, so you had to call and wake up an engineer — if you weren't able to do some third-world engineering yourself.

I started in radio in 1967 during the AM top 40 heyday at WSIB, a Class IV station on 1490 (now WVGB) in Beaufort, S.C.

That's my hometown, an area of our state where parts of movies like "The Big Chill" and "Forrest Gump" were filmed, and not far from famous Parris Island.

We'd sign on at 5:30 and sign off at midnight — or 11 p.m., depending on how much the owner wanted to spend on part-time help. But it was always mid-night on weekends.

must have been on doughnut break. It must have been about 1980; I worked at WORG in Orangeburg, S.C., which was silent overnights. I awoke when a listener called my house at 6:15 or so and asked, "Shouldn't you be at work by now?" One of the two times in four years I was late.

Another time I signed the station off at 1 a.m. For some reason I was handling the night shift (I was PD; when someone couldn't work or we were short a body, guess who got to come in?)

Anyway I thought it would be cute to play the national anthem and then, just before I cut the carrier, to play the sound of breaking glass.

Not five minutes later a deputy shows up, wanting to know if I was OK. Someone had heard it and called the police, concerned about yours truly.

So someone was listening!

Cue it up

Pops and cue burns. On some songs, no matter how careful you were, you'd hear them at the start. If you played records back then, you can hear

it in your head today.

Every staff seemed to include that one person who would cue every song five or six times, leaving the records scarred for the next guy. This was particularly apparent on songs with long, quiet intros like "The First Time Ever I Saw Your Face." These were the days when "music rotation" meant "Play from the front, then put 'em in the back."

You'd bury the cue burns by potting the song up after a half-second and making creative use of jingles — or else just cart the songs up and play them from the tape.

I also remember at least 20 minutes of spots per hour. What's the most you ever had on your paper log? And we also aired five minutes of news somewhere along the way.

Does the following sound familiar? You'd be halfway through your air shift and some fat salesman would waddle through the control room door — usually



Forty years in radio

Stu Wright: 1967 - 2007

And the beat goes on!



The author, then and now.

That lost hour gave an advantage to the other station in the market, WBEU, a thousand-watt daytimer on 960. They had an FM — we joked that the letters stood for "Forgotten Medium," how little we knew — which later became WYKZ at 98.7, now a Clear Channel station licensed to Beaufort but with studios in Savannah.

Good morning, sunshine

Even in rated markets, daytime stations could be a factor.

There never seemed to be a "standard" for their power and programming, although stations at which I worked were 1 kW and aired country from sign-on until about 2 p.m. or so, then "rock" (meaning top 40) until sign-off. The wintertime sign-off came early, at 5:15 or 5:30 p.m. — a bunch of fun when Christmas came around and you had less than 12 hours to cram-pack all those spots in.

I thought it would be cute to play the national anthem and then, just before I cut the carrier, to play the sound of breaking glass.

Did your station sign off with the national anthem? Most did, but in some southern states I remember stations using "Dixie." I have no problem with that, through it would probably be politically incorrect today.

Speaking of sign-on, here's the worse feeling in the world: The station is scheduled to sign on at 6 a.m. (maybe with low-power or pre-sunrise authority). But you are awakened in your bed by the sun coming through your window.

Every traffic light is red on the way to the station; and when you get there, you'd have a packed log to deal with. That's if you're lucky. If not, you listen to your boss handle part of your shift as you drive in.

I lived in the country and one time I probably broke the world land speed record on the way to work. The cops

in the middle of a break — and add 25 spots to an already overloaded schedule. Then you would have to play "MacArthur Park" while you cut and carted up a spot, sometimes reading copy written in long-hand on a piece of legal paper.

Someone once told me they worked at a single-station market in the early 1970s that had 42 minutes of spots per hour. I don't know if I believe that. But I've worked with as many as 22.

Time for me to sign off. Where is that cart with "Dixie"?

The author, a former operations manager and morning personality, has almost 40 years of broadcast experience. He now drives an 18-wheeler on local runs. Write to him at rudestu@gmail.com.

RW welcomes your stories about life in radio management or engineering. Write to radioworld@imaspub.com.

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Vocalo

► Continued from page 30

— the public becomes non-paying members of the station, a position that allows them to provide content for air.

This isn't aired as it comes in. Instead, Turner's crew of on-air "hosts" sifts it, selecting items that make sense for their program slots.

In many cases, the host will get in touch with the submitter, for input on cleaning the content up for air and to bring them into the studio if more work is required.

The station built a studio for the format, and the Vocalo.org staff includes a production coordinator who manages the equipment used by hosts.

"The studio and surrounding production space allows for just about any piece of technology, old or new, to make it to air, direct from Web to broadcast, from MP3 player to broadcast, from vinyl, CD, memory card, even a Jump drive," said Turner.

"The production area, 'the factory,' includes guitars, drums, keyboard and other instruments used to create frames, transitions, bumps and beds for content contributed by users."

Chicago Public Radio calls Vocalo a 'brand-new format, unlike any other in non-commercial radio.'

As for licensing, the submitter can give Vocalo.org unlimited permission to play the material either on-air as well as on-demand at the Web site; only on-air at 89.5; or exclusively on the Web.

Unlike many radio sites, the Web presence is more than a promotional complement to an on-air sound. There is more content online than on-air; the site offers on-demand audio clips, video, text and artwork provided by station members.

"Only 20 percent of what we receive is in the form of audio," Turner says. "The rest is text, video or images."

The site is also the real gathering point for Vocalo.org's members; it is where they make contact with station staff, see the latest station news and keep an ear on what everyone else is providing.

Again, the MySpace model applies: The Web site is the common meeting place for this online village.

Challenges

At first, the biggest challenge was populating the broadcast day.

"With the amount [of content] we are receiving, we can only really generate three hours of great radio," Turner said. "As a result, we repeat this three-hour block seven times after it originally airs. Over the coming months we hope to increase the number of on-air hours incrementally."

That's due in part to a small membership base: Only 600 people have signed up to the station to date, "with about 50 providing content on a regular basis," she



Wendy Turner

said; but "our worries about getting enough content were unnecessary. Without any marketing, we're growing users and contributors every day. Now more than 100 content pieces are contributed every week."

A second challenge: the mass of Chicagoans are not tuning in, meaning Chicago Public Radio has not yet achieved its goal of reaching its non-core audience.

"Growing listenership to broadcast may take more effort and outreach than expected. More and more people are contributing to the site, but only about 20 percent of our site users listen to the Web stream. We're planning a major marketing effort in the spring to coincide with the power increase."

Vocalo.org is only a few months old and its concept is significantly different

from what most listeners are accustomed to. It's also hampered by only having 7,000 watts coming out of Chesteron, meaning that much of Chicago isn't being served.

"But this will change soon, because we are upgrading to 50,000 watts," Turner says. "Once this power boost takes place, Vocalo.org will cover the entire city."

Plans are to locate WBEW to a taller tower, still operating as a Class B1 but with a directional antenna for increased signal to the west and northeast, Maintenance Engineer Don White said. The currently authorized CP calls for 6.8 kW at 105 m, but transmitter location, height and power are expected to change. CPR is also pursuing a grant for new transmitter facilities and an upgrade to HD Radio.



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Promo Power



by Mark Lapidus

Help Wanted: Director of Fun

I was driving in traffic, as I do most mornings, half listening to the radio. A story about fighting with cardboard tubes woke me from my pre-caffeine stupor.

An organization dubbed the "Cardboard Tube Fighting League" had just held an event where combatants attacked each other with — what else? — cardboard tubes. Their stated objective

was clear and concise. They wanted to have fun.

Wow. Fun! You know, that thing which at one time was the core of many music radio stations.

Fortunately, fun isn't entirely dead in our business, but it has taken a severe back seat.

Sometimes we still stumble into doing fun things despite ourselves because we think of a clever way to make money and it just happens to be fun. Often, fun is scheduled around a budget, as in, "We have \$10,000 to give away, let's have fun."

people and to get it done.

How does one go about creating fun from nothing? Hey, here's an obvious start: Be the first in your market to form a branch of the Cardboard Tube Fighting League!

Tubes at 20 paces

I have no idea if the organizers would even be interested in talking with you about it but why not ask? I can see how this one starts pretty small and eventually you've got 5,000 people doing this in a real venue.

More important, after you do an event like this for your listeners and see people getting into it, you will be reminded how cool it is to create things that make people laugh and say nice things about your station. When they're really unique, you'll also generate press.

If you don't like the cardboard tube idea, here are a few more that I've been involved with that can be FUN:

- ✓ A bike race in the water. At least one bike part is required to be part of each raft. The raft must be built from scratch using materials you designate — Styrofoam and plastic soda bottles. No paddles allowed. (All participants must wear life jackets and if you're smart you'll have the Coast Guard or at least lifeguards involved.) Entry fees benefit a charity.

- ✓ Free outdoor movie festival that fits your format. This works. Many companies rent portable screens.

- ✓ Pool parties that involve stars and small groups of winners. There's something about seeing stars in swimwear.

- ✓ A Halloween party where everyone has to come as a character from a song in your format, or even as the title of a song. Offer big prizes for best costumes. Have people explain themselves.

- ✓ Celebrities cooking a meal for people in the winner's home. The winner gets to invite a few friends. Do a broadcast while it's happening.

- ✓ Sit-in-the-Seats Marathon. Have competitors try to sit in as many stadium seats as they can in 25 hours. Let them take breaks whenever they want — that's part of the strategy of winning.

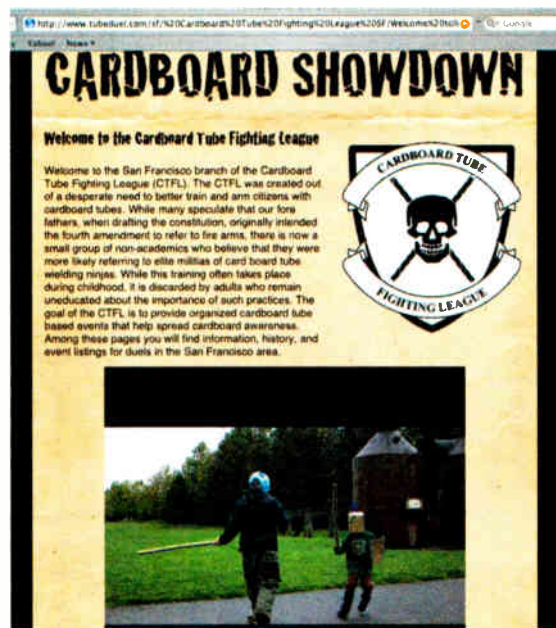
- ✓ Guest DJs. It's often fun to hear an average Joe on the air — as long as he and you don't take it too seriously.

- ✓ Fishing Fridays. Convince listeners to skip work on Friday and go fishing with your station.

Do you have the energy and courage to champion fun at your station? Break out the cardboard!

Comment on this or any story. Write to radioworld@imaspub.com.

The author is president of Lapidus Media. Contact him at mlapidus@cox.net.



Then there are times when we think something could be fun because our edgy morning show has dreamed up a stunt which typically has to do with one of the players doing something foolish. That almost always isn't fun. It may produce a laugh or two, but not a lasting feeling or memory.

Funny boss

Why is fun important to a radio station? Because it gives listeners a device by which they remember who we are and what we do to be entertaining.

A side benefit is that it creates a way for personalities and station workers to feel more unified — with success as their goal.

Amazingly, fun creates fun. When a station does a lot of things that listeners and staff members enjoy, more ideas are generated organically because your team is always trying to come up with the next thing to do to obtain that feeling you all enjoy.

If you work at a radio station or a cluster where your set calendar is made of concerts, county fairs, client appearances, sporting events and large contests two or three times a year, you're unlikely to have much fun. You will be predictable and pretty much like everyone else.

If you care to do something about it, as with most things you likely will have to put someone in charge. There's no question that fun is a group endeavor, but it takes a driver to pull ideas out of

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STATION SERVICES

'It's All About Guitar': Dr. Duck Seeks Syndication

"Dr. Duck's Guitar Prescription Radio Show" is all about guitar styles, players and music.

Based in Las Vegas, the weekly program is hosted by "Dr. Duck," whose company sells guitars and accessories. John Duck invented Dr. Duck's Ax Wax & String Lube, a guitar polishing formula.

The show is available free to college, nonprofits and commercial stations.

"The most incredibly awesome guitar music in the world, from the very best players known, in all different genres of music will be played on each one-hour show of 'Dr. Duck's Guitar Prescription,'" the organizers state.

Each show has a "party" atmosphere; episodes are 58 minutes, plus holes for 60 to 90 seconds of spots or sponsorships. Content is evergreen, with no seasons, dates or current events mentioned.

Content is not specific to a given format or decade. The first show airs in January. The program is free to stations. A sample MP3 of the program is available online.

Info: www.ducksdeluxe.com or call (702) 878-4948.





People News
Tell us about your job change or new hire. Send news and photos via e-mail to radioworld@imaspub.com or mail to Radio World People News, P.O. Box 1214, Falls Church, VA 22041.

Bob Weller, a consulting engineer at Hammett & Edison, returned to the FCC to head up its RF Safety Office. He previously worked there from 1984-1993. He replaces Bob Cleveland in heading the department, which deals with human exposure to RF radiation. Cleveland retired in April.



Tim Anderson

Harris Corp. named HD Radio expert **Tim Anderson** FM/digital product line manager for the transmission business at Harris Broadcast Communications. He has worked as an HD Radio specialist for stations, and assisted in the development of HD Radio transmission and receiver products for manufacturers. Prior to that, Anderson served as a broadcast engineer for Ibiqity Digital, where he was involved in the development of the HD Radio system and advanced application services.

After 17 years as Entercom vice president of technology, **Marty Hadfield** was tapped by Jump2Go to lead the project management and nationwide technical deployment of the Go Commerce service, which enables new revenue opportunities for stations through HD Radio tagging, RDS radio tagging and iTunes fulfillment from station Web sites.



Marty Hadfield

Peter Thiele was promoted to operations manager for Salem Media of New York's WMCA(AM) and WWDJ(AM). He had been program operations manager for Salem San Francisco.



Peter Thiele

John Lyons received SBE's Broadcast Engineer of the Year award for 2006. He is assistant vice president and director of broadcast communications for The Durst Organization, owners and operators of the Master TV and FM site at 4 Times Square in midtown Manhattan.



John Lyons and SBE President Barry Thomas

The National Association of Shortwave

reporters **Paul and Sylvia Hollinger** of Lancaster, Pa., received HCJB Global's first Timothy Award for their partnership with the mission through their work at the offices of WDAC(FM) in Lancaster. Paul Hollinger managed WDAC(FM) for many years and most recently worked as chief operating officer until his retirement last December.

Gary Slaight, president and chief executive officer of Standard Broadcasting Inc., received the Canadian Association of Broadcasters' 2007 Gold Ribbon Award for Broadcast Excellence on Nov. 5 in Ottawa.

Maria Thomas was named senior vice president, digital media, at NPR. She had directed NPR's digital media activities since 2001 as vice president and general manager, online.

Radio broadcaster **Charles Porter** died after a final broadcast on the station he

helped build, KRIX (AM). Porter, host of KIRX's "Party Line" since 1956, conducted a phone interview at 10 a.m. during a broadcast commemorating the station's 60th anniversary before passing away at his Kirksville, Mo., home. He was 86.

Wynn Speece, known for more than six decades as WNAX(AM)'s "The Neighbor Lady," died at the age of 90. Speece shared recipes, household tips and personal anecdotes with listeners. Her program began in 1941 and continued through 2005.

Network Electronics appointed **Ken Gould** as regional manager, west coast. He had served as western regional sales manager for Ross Video Limited for eight years, and held sales, management and technician positions for Matrix Video Communications Corp. ... Additionally, Network Electronics expanded its operations in Latin America by opening regional

headquarters in Sao Paulo, Brazil. The office falls under the direction of newly appointed regional manager **Daniel Diniz**. Diniz was sales support engineer for Brazilian distributor Libor.

The Board of Directors of the Corporation for Public Broadcasting elected **Chris Boskin** to a one-year term as chair. Boskin has served on CPB's board for more than a year, and for the last seven years she has served on the board at Northern California Public Broadcasting in San Francisco.



Chris Boskin

ABC Radio Networks named **Dave Van Dyke** vice president, affiliate relations. See PEOPLE NEWS, page 36 ▶

CONGRATULATIONS, LARRY CERVON



Broadcast Electronics, Inc., which will note its 50th anniversary in 2009, recently honored former President Larry Cervon at a commemorative event at its headquarters in Quincy, Ill.

President/CEO Joseph Roark presented Cervon, who headed BE from 1976 to 1991, with a plaque recognizing his contributions to the company, the community and the broadcast industry. "I retired at age 69 in early 1991, but my heart was always with BE," Cervon said.

Radio World joins BE, his colleagues and peers in saluting Larry Cervon for his lifelong service to radio.

Hollingers Receive HCJB Timothy Award

by Ken R. Deutsch

The tiny village of Ukarumpa in Papua New Guinea, has few roads, few citizens.

But now, thanks to the efforts of Paul and Sylvia Hollinger, WDAC(FM) and international religious organization HCJB Global, these peasants who call it home are listening to Christian words and music from a newly-constructed local FM station.

This is just a part of what the Hollingers have accomplished over 40 years.

HCJB's first Timothy Award was presented to the couple in recognition of their work in helping to fund projects such as the internationally-syndicated one-minute radio show "Beyond the Call," hosted by HCJB's Dr. Ron Cline; their assistance in setting up Russian AM/FM radio network New Life Radio; and efforts toward putting solar-powered, fixed-tuned radios into the hands of listeners around the world.

The Timothy Award is a bronze replica of the RCA microphone used at station HCJB in Quito, Ecuador, in the 1940s. It is given to individuals partnering with HCJB Global who exhibit characteristics that the apostle Paul asked of Timothy, one of his disciples.

"Our mission to bring the word of Christ to the world started in 1963 when I heard a minister named Abe Van der Puy preaching in Florida," said Paul Hollinger, a long-time Pennsylvania radio broadcaster who retired in January.

"This minister said, 'We must all learn to scratch where it itches,' and I was taken by that message. Starting in 1965 we partnered with HCJB, which stands for Heralding Christ Jesus' Blessings, because my wife Sylvia and I were impressed with that ministry's ability to get the gospel into places like China and the former Soviet Union, where no missionaries were allowed."

In the 1960s HCJB used shortwave, which the Soviets were using to try to spread the message of communism.

"Now almost everyone has FM, even primitive Third World countries," said Hollinger. "When the Soviet Union collapsed, it stopped using shortwave. That medium is almost a thing of the past. Instead of shortwave, HCJB came out with these little suitcase FM radios, fed by satellite."

The world outreach of HCJB was helped by the Hollingers during their tenure at WDAC in Lancaster, Pa.

"From 1961 through 2006, Paul was our general manager and COO," said Doug Myer, who holds those positions at the station today.

"Paul's wife, Sylvia, was here 25 years and she was editor of our program guide and was also an administrative assistant. Paul was on the board of the National Religious Broadcasters for 40 years, and it was through



The Hollingers, front row right, are shown at a meeting of the International Council of Broadcasters in 1998.

WDAC 94.5fm HD THE VOICE of Christian Radio

that organization that he developed relationships with religious leaders around the world.

"One of their station projects was to organize donations of Christian CDs from our listeners so that HCJB could distribute them in other countries," Myer continued.

"We also provided solar-powered radios to Africa and Papua New Guinea where a network of Christian stations was built. Our local listeners helped to fund that by partnering with HCJB."

Work local, think global

WDAC is a commercial station, of which the Hollingers own a third. The rest is owned by Dick and Dan Crawford. WDAC Radio Company is the official license holder; no listener donations are used in the operation of the station.

The format is about 30 percent Bible teaching, 20 percent talk and news, and 50 percent inspirational Christian music. WDAC employs about 25 people and bills several million dollars a year.

"This is a very evangelical Christian part of the coun-

try, ever since the Mennonites settled here in 1710 as a safe haven from persecution in Europe," said Hollinger. "We ask our listeners for money, but it doesn't go to us. It goes to fund various Christian projects around the world."

One of these projects was distributing a book by Josh McDowell about Jesus called "More Than a Carpenter," throughout Russia and Estonia. Another project called "Turn Your Radios On" was dreamed up to provide solar-powered radios to the people of Africa, and in particular, to Muslim countries in the northern part of that continent.

A more local initiative involved the purchase of inexpensive fixed-tune radios which are used in Lancaster to receive WDAC's main signal at 94.5 FM, and the 92 kHz subcarrier, which offers Christian programming in Spanish. A flip-switch selects the English programming from WDAC or the Spanish programming, which is provided via satellite from HCJB. These portable radios can run on battery or AC.

The Hollingers document each of these listener-supported projects with pictures and videos so that contributors can see where their money is going.

Radio gets results

"Radio is very healthy," said Hollinger. "It's not in danger of dying now any more than it was when TV came on the scene in the 1950s. But people have a very short attention span so I'm concerned about the next generation not having an interest in talk programming. Listeners have so many more options now."

Radio World asked Hollinger if he was pleased that both XM and Sirius offer religious channels as a part of their satellite services.

"Well, Howard Stern has more satellite channels than Christians do," he said.

Myer noted that the Hollingers are graduates of Moody Bible Institute in Chicago.

"They are both passionate about their relationship with Jesus Christ and about sharing what Christ has done in their lives," he said. "When Paul began working at WDAC, he never dreamed he would be here 45 years. He started out training as a pastor, and it turned out that his flock has included hundreds of thousands of people over the years, thanks to radio."

HCJB has been a part of that long period of radio service.

"The Timothy Award came as a surprise to us," said Sylvia Hollinger. "We are humbled by it. It is a joy to work with a first-class organization like HCJB. Their ministry goes far beyond radio as they also own hospitals and really do a lot to help people."

HCJB has its U.S. headquarters in Colorado Springs, with regional offices in Brazil, Canada, Chile, Ecuador, Costa Rica, Guatemala and Paraguay. For information on the ministry of HCJB Global, visit www.hcjb.org. To discover WDAC ("The Voice") and its HD2 channel, "Hope, Music for the Heart," log onto www.wdac.com.

Ken R. Deutsch wrote about public station WTIP(FM) in Minnesota in the Nov. 7 issue.

People News

► Continued from page 35

He is former vice president and station general manager of CBS Radio station KCBS(FM) in Los Angeles. Van Dyke founded his broadcast management consulting company, Radio Mentor, in 2001, and launched mobile media research company Bridge Ratings in 2002.

WFUV(FM) host Vin Scelsa received the 2007 ASCAP Deems Taylor Radio Broadcast Award for outstanding coverage of music on his long-running show "Idiot's Delight." The award comes in his 40th year on the air in New York.

The Consumer Electronics Association inducted Dr. Dieter Seitzer, Dr. Heinz Gerhauser and Dr. Karlheinz Brandenburg into its Hall of Fame. The scientists were honored on behalf of the team of Fraunhofer researchers and engineers who have been developing the MP3 audio coding format since the early 1980s. Also inducted were Paul Allen, co-founder of Microsoft; and Amar Bose, founder and chairman of Bose Inc. ... CEA's senior vice president of events and conferences, Karen Chupka, was named winner of the 2007 International Association of Exhibitions and Events Outstanding Achievement in Industry Leadership Award.

CBS Radio appointed Don Bouloukos senior vice president/market manager of its New York operations, and SVP/general manager of WFAN(AM), replacing Chuck

Bortnick. Bouloukos had been SVP for CBS Radio, overseeing station operations in Boston; Charlotte; N.C.; Cleveland; Dallas; Detroit; Hartford, Conn.; Pittsburgh; Rochester, N.Y.; and Houston.

Meridian Design Associates, Architects, P.C. promoted William Hallisky and Luis Roges each to the position of vice president. Hallisky was previously a senior associate, while Roges was an associate.

Bonneville International promoted three senior corporate staffers to vice president positions. They are Paul Yates, Bonneville International vice president and controller; Alvin Cottrell, Bonneville International vice president and treasurer; and Kent Nate, vice president and controller of the company's Bonneville Communications and Bonneville Satellite divisions. Yates had formerly been controller; Alvin Cottrell had been treasurer; and Kent Nate had been director of finance for Bonneville Communications.



Paul Yates



Alvin Cottrell



Kent Nate

Take a peep

at our new website

The screenshot shows the Broadcast Warehouse website interface. At the top, there's a navigation bar with 'TRANSMISSION', 'STUDIO', 'MODULES', and 'SOFTWARE'. A sidebar on the left lists various product categories under 'TRANSMISSION' and 'STUDIO'. The main content area features a large banner for a 'Digital Microphone Processor' by VORSIS, with an 'In stock now!' badge. Below this, there's a 'Popular Products' list with 9 items, including DSPXtreme Audio Processor, DSPXtra FM Audio Processor, 150W Amp Module, 12 Watt power supply, AMP1000 1kW FM Amplifier, DSPX FM Audio Processor, 300W FM pallet amplifier, PLL+ 1W Exciter, and Inovonics 631 Re-broadcast FM Receiver. There are also sections for 'Manufacturers' with logos for Coel, Yamaha, and Digigram, and a 'Low cost IP' section. The footer of the website shows navigation links and contact information.

www.broadcastwarehouse.com

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IN THE NEWS

Edwards: Localism Has Been Eviscerated

Radio host Bob Edwards was among those testifying at the final public hearing on localism conducted by the FCC this fall.

Edwards spoke on behalf of the American Federation of Television and Radio Artists, of which he is national first vice president. Edwards is host of a show on XM Satellite Radio and a weekend program distributed by Public Radio International; he was a long-time host on NPR.

Edwards urged commissioners not to "fast track" their consideration of the impact that further consolidation would have on localism in broadcasting.

Excerpts:

The major radio conglomerates argue that the broadcast ownership caps should be lifted to enable them to respond to increased competition from satellite radio and the Internet. But this ignores the local aspect of terrestrial radio broadcasting. Satellite radio is, by definition, a national platform. The strength of terrestrial radio and its major appeal is that it is local.

When it comes to conveying local information, news, weather and community events, there is no real competition between these platforms. A national satellite broadcaster isn't going to give local communities information about, for example, their local school board election — and if terrestrial broadcasters continue to consolidate, local communities won't get that information from local radio stations, either.

Localism is inextricably linked with the rest of the commission's regulations governing media ownership, which are also currently under review. The drive to consolidate ownership of media seems to ignore the disaster that consolidation has brought to local news and public affairs on radio in this country. The commission should not intensify the continuing evisceration of broadcast localism as a result of consolidation by adopting rules enabling even more consolidation. ...

If the commission is going to give large, multi-national companies the right to exploit the publicly-owned airwaves for profit, it should consider how those companies have historically behaved when they are deregulated. Radio ownership was largely deregulated in 1996 to the detriment of localism in broadcasting. Consider the following examples:

• In Chicago, Westinghouse-owned WMAQ(AM) had been an all-news station since 1989. Westinghouse bought CBS and later merged with Viacom in the '90s. The merged company's radio division, CBS Radio (then called Infinity), owned Chicago's only other all-news format station WBBM(AM). In 2000, Viacom/CBS/Infinity determined that it was no longer profitable for it to compete

regard for the input and tastes of the local community.

• And, as you know well, at 2 a.m. on Jan. 18, 2002, there was a train derailment in Minot, N.D., the fourth-largest city in the state. One company, Clear Channel, owned all six commercial radio stations in Minot, yet when emergency responders tried to reach somebody at the

Mark my words. If you further de-regulate media in this country, networks, broadcast stations and newspapers will continue to consolidate, resulting in fewer voices heard by citizens.

— Bob Edwards

against itself, so it shut down WMAQ(AM). Because WMAQ(AM) and WBBM(AM) were the only two all-news format radio stations in Chicago, when Viacom killed WMAQ(AM), it was killing WBBM(AM)'s only competition, leaving the third-largest radio market in the United States with only one all-news radio station. Although these moves may have been highly profitable for Viacom, they were hardly in the public interest.

• Viacom's radio division — CBS Radio — also owns both of the only all-news format radio stations in the New York City market. Although CBS Radio continues to compete against itself in New York City by maintaining separate newsrooms, the fact remains that the same multinational media conglomerate programs both of the only all-news radio stations in New York; there is not a separate independent all-news format radio station in the largest radio market in the United States.

• On music format stations, consolidation has led to practices like "voice-tracking" in radio, or "jockless" formats. Veteran radio broadcasters find themselves out of work while their former employers air canned programming, produced in a distant market, and without

stations to air emergency warnings and instructions, nobody responded. ...

These examples and countless more illustrate that media consolidation has been the enemy of localism in broadcasting. If the commission truly seeks to enhance localism, it should tighten, not


loosen, ownership restrictions. This much is certain: there exists no compelling public interest justification at this time for the commission to relax its ownership caps and thereby repeat the mistakes of post-1996 consolidation.

The same thing is already starting to happen in print and television. You have heard AFTRA members testify at other public hearings across the country about how media companies that own newspapers and television stations in the same market routinely repurpose and recycle content. You've heard about how broadcast conglomerates that operate two stations in a market consolidate newsrooms, fire journalists and homogenize programming.

My colleagues around the country have been very clear about what these proceedings mean to us; I certainly hope that you are listening.

Mark my words. If you further de-regulate media in this country, networks, broadcast stations and newspapers will continue to consolidate, resulting in fewer voices heard by citizens. If you permit this consolidation, television stations and newspapers will behave as commercial radio owners behaved when they were largely deregulated — they will adopt a business model that shuts out local news and entertainment in favor of national homogenized programming.

If commercial media are given the unfettered right to abandon their obligation to serve the public interest, they will do just that. Please do not let this happen.



WE GIVE YOU HALPER

Name: Donna Lee Halper
 Occupation: Media historian, consultant, educator
 Accomplishments: Ph.D. candidate, Univ. of Massachusetts; author of three books and numerous articles; award-winning teacher and consultant.
 Hero: One is Eunice Randall, first woman announcer in Boston (1919-25) and first woman radio engineer
 Favorite Station of Yore: WMEX Boston and Arnie "Woo Woo" Ginsburg with his bells, whistles and sound effects and great personality. He didn't have a big deep top-40 voice yet he proved that if you're entertaining, people will like you.
 Favorite Quote: Micah 6:8. "For what does God require of you but to do justly, love mercy and walk humbly with your God."
 Other: I am the advocate for an adult with autism and I have been a Big Sister. I collect stamps and old radio memorabilia. I discovered the rock group Rush, who dedicated their first two albums to me.

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World Radio History

Net Station Sells Web Time to Producers

by James Careless

For decades, radio stations have sold blocks of air-time to sponsors wanting to broadcast their own content. Now this practice has been taken to the Web by Power Strategies, a marketing firm based in Orem, Utah.

For an hourly rate of \$1,000, advertisers can buy "Web time" on the Grapevine Talk Radio Network (www.grapevineradio.com), an Internet radio station operated by Power Strategies. For this money, their shows get streamed via the Web through Grapevine, for distribution to listeners around the world.

Apparently the concept works, because "We've got over 20 programs running right now," says Chad Stilson, Grapevine Radio's president and co-owner.

For an hourly rate of \$1,000, advertisers can buy 'Web time' on the Grapevine Talk Radio Network.

Certainly the station can boast a packed 24/7 schedule. On Mondays, Grapevine runs nothing but live programming from 8 a.m. to 5 p.m. Mountain Time. Some live shows are aired on other weekdays, with the remainder of the schedules being rebroadcasts.

Why it sells

In theory, the Grapevine Talk Radio Network is an online infomercial Webcaster. In practice, company owners Stilson and his wife and partner Kim Power Stilson, along with partners Christina Schmidt and others, run Grapevine as a talk radio network, with sponsors producing shows that offer genuine content, albeit focused on their own products and services.

The reason Grapevine's programmers are willing to toe this line is due to the nature of their products. For instance, talk shows such as "About Relationships With Dr. Kevin Skinner" aren't selling soap, but rather relationship courses from his site *GrowthClimate.com*.

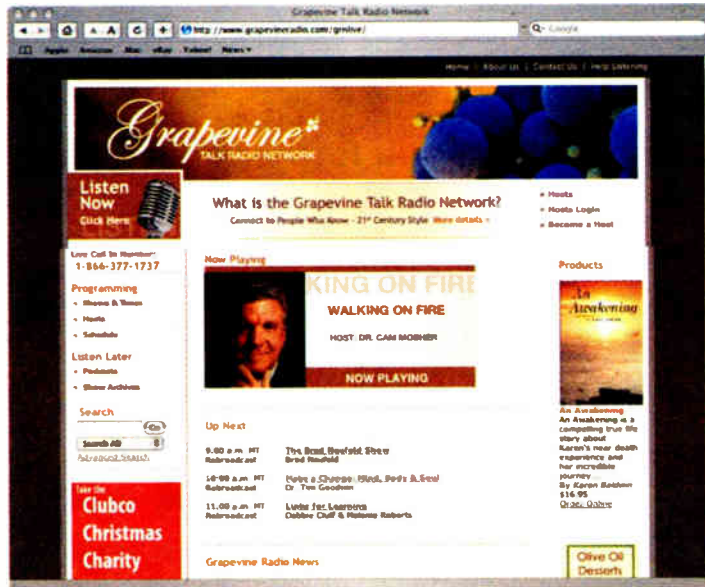
"Our 'flagship' course is GrowthClimate Basics: The Anatomy of Relationships," said Kenneth H. Patey, founder of GrowthClimate. "All of our radio content springboards from the information and principles taught in this course."

It is the fact that Grapevine's paid programs are focused on relationship and social issues topics of interest to female listeners – that allows this Webcaster to bill itself as a talk radio network. The difference between its

shows and "Oprah" is that Grapevine's "guests" are paying for their appearances, ensuring that the problems raised are addressable by the products/services they want to sell.

What they have in common is that listeners want to hear this kind of content.

From the sponsors' point of view, Grapevine is an effective way to reach their target audiences, aided by the cachet of being on a "talk radio network."



"We see Web radio as a way to reach so many more people," says Patey. "We are now receiving inquiries from individuals who want to train to teach, in their own communities, the courses we offer."

"It has taken time to build awareness that we do have a program, but that interest is increasing," she said. "We are now regularly receiving phone calls, e-mails, etc., from people expressing appreciation for what we are offering. They are telling their friends."

Public face

Grapevine does not promote itself as a paid programming Webcaster. Instead, the company portrays itself as a source of useful information for women wanting to learn more about relationships, health and raising children.

"The phrase 'I heard it through the grapevine' was made famous by a hit song recorded by Marvin Gaye in 1969!" states the Web site. "Now the Grapevine has gone high tech as the first Internet radio network to pull and push knowledge across the Internet through talk radio to help people connect to people who know."

As for those listeners who want to seize the microphone for themselves?

"You can broadcast from your desk in China, come in to our studios in Orem or share your thoughts via the

Internet," states the site. "To procure your own set show time or weekly radio talk show there is a sponsorship fee and a Talk Radio Broadcast School requirement but otherwise all the knowledge you want is free on Grapevine Radio."

Evaluating Grapevine

Grapevine is essentially an infomercial broadcaster. But being that Grapevine Radio's home is on the Web, no radio spectrum is lost in the provision of this content,

For sponsors, such questions don't matter. What does it, does it pay to buy time on Grapevine?

According to Kenneth H. Patey, the answer is yes.

In fact, "We are pleased enough that we are in the final stages for launching our own Web radio station: GrowthClimate Relationship Radio Network," he tells RW. GCRRN will offer "syndication to other like individuals or organizations whose goal is to strengthen relationships in families, children and individuals in streaming their content"; again for a fee.

That's the rub: It's so cheap to set up a Webcasting station that Grapevine Radio is at risk of losing those sponsors it serves best. In response to this fact, Grapevine is launching a company called Planetary Streams to provide GCRRN and other with turnkey Webcasting stations.

"People are finding that while a broadcast stream is one thing, an entire network is actually quite a bit more complicated and expensive than people think," said Kim Power Stilson.

WWL Wins Three Marconis

The NAB Marconi Radio Awards honor outstanding stations and personalities. The winners for 2007:

Stations

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 Major-Market: WGN(AM) Chicago
 Large-Market: KSTP(FM) Minneapolis
 Medium-Market: WWL(AM) New Orleans
 Small-Market: WAXX(FM) Eau Claire, Wis.
 AC: WBEB(FM) Philadelphia
 CHR: WVAQ(FM) Morgantown, W.Va.
 Country: WIVK(FM) Knoxville, Tenn.
 News/Talk: WWL(AM) New Orleans
 Oldies: WWSW(FM) Pittsburgh
 Religious: KLTY(FM) Dallas
 Rock: WMMR(FM) Philadelphia
 Spanish: KLVE(FM) Los Angeles
 Sports: KTCK(AM) Dallas
 Urban: WHUR(FM) Washington

Personalities

Network/Syndicated: Sean Hannity,
 Premiere Radio Networks
 Major-Market: Big Boy, KPWR(FM)
 Burbank, Calif.
 Large-Market: Chuck Collier, WGAR(FM)
 Cleveland
 Medium-Market: Van & Bonnie, WHO(AM)
 Des Moines, Iowa
 Small-Market: Mike McNamara, KNOX(AM)
 Grand Forks, N.D.
 Spanish Format: Rafael Pulido, WOJO(FM)
 Chicago

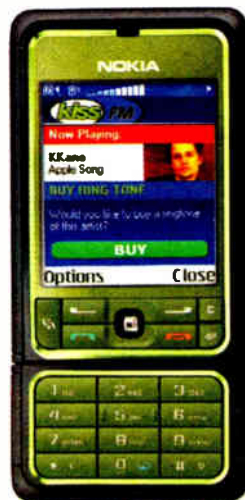
STATION SERVICES

Visual Radio Service Is Enhanced

RCS and Nokia rolled out what they call the next generation of Visual Radio for radio listeners and cell-phone users.

The companies position the service as a new revenue stream opportunity for stations. Visual Radio enables mobile device users to receive FM broadcasts with synchronized interactive graphical content. The enhanced service is expected to be available in certain cities in 10 countries by year's end.

Users will be able to see real-time information about artists, concert dates and related topics on the phone display while listening to FM broadcasts. The companies say the service allows interactivity with the broadcast, such as participation in listener competitions and promotions, and helps increase revenue



through sales of graphical content synchronized with audio spot inventory.

The enhanced version allows stations to transmit visual ads at the time listeners hear the spots on the air.

RCS also said a new version of its RadioShow software will work with Visual Radio, so that the content seen on the mobile device will appear simultaneously on digital platforms including HD Radio, the Internet, DAB and DVB-H.

The announcement was by RCS President/CEO Philippe Generali and Nokia's Head of Visual Radio Teemu Tarnanen. RCS will market the Visual Radio solution to broadcasters and Nokia will continue to bundle Visual Radio capability into new devices.

Info: www.visualradio.com.

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◆ READER'S FORUM ◆

No HD-R Receivers At Fall Show

I too was at the NAB Radio Show in Charlotte. I was impressed with the HD Radio theme; however, I must point out that retro radios were being sold at the NAB Radio Show store, the kind also able to play LP records ("In Search of an HD-R Receiver" by Richard Factor, Oct. 24). No HD Radio receivers for sale.

I thought for sure I could find HD-R receivers there.

*Wilfred Cooper
Greenville, N.C.*

Marv Collins

I read the guest commentary in the Oct. 10 issue with considerable interest and certainly wish Marvin Collins well with his recent health challenges ("Retired CE Tackles Toughest Job Yet").



Marv Collins

Having fought bladder cancer for the past five years myself, I am no stranger to problems of the urinary system. While I remain hopeful Collins made the right decision, I feel strongly that any man diagnosed with cancer of the prostate should have his prostate removed. Get rid of it.

I am well aware of other treatment modalities such as the various forms of radiation therapy. Many choose brachytherapy, the placement of radioactive seeds into the prostate gland to kill the cancer. It sounds like Collins did his homework before opting for the procedure he had done.

I also am aware that there are five-year studies claiming radiation therapy outcomes are equal to having the prostate gland removed. However, I think if you look into some studies that go 10, 15 years out, it is best to have the prostate removed. And why not? You don't need it so why not get rid of the cancer completely? And with today's nerve sparing techniques, many men are as good as new and can rest assured they are cancer-free.

There are too many docs in the medical profession that try to sell a patient on radiation treatment of some sort, and I'm sure they are sincere and believe it is the best treatment. Another bad thing concerning radiation is that once you have had radiation, if you ever do have to have your prostate removed it is next to impossible because of what the radiation has done. What could have been a somewhat uncomplicated medical procedure becomes so much more.

I strongly recommend getting rid of the cancer once and for all. The operation is no picnic in the park, but once your

body is healed you can be sure the cancer is gone. Of course, I am talking about cancer that is confined only to the prostate and has not spread.

Good luck to Marvin and I wish him the best.

*Jerry Puffer
Shelby, Mont.*

I read with interest and compassion the article by Marvin Collins describing his ordeal in dealing with his prostate cancer.

All of us have been touched by cancer personally or through a family member, friend or colleague at some point in our lives. After nearly 30 years in this business, however, it seems that an unusually high number of broadcast engineers have seen their share of various cancers, including lymphoma, leukemia and other rarer forms of this disease.

The ANSI standards were obviously put in place to combat exposure to the severe effects of the non-ionizing radiation we face every day in this industry. But one must wonder — myself included — how many of these cancers can be directly attributed to the RF environment we work in; both the current levels at the ANSI standards in place now and the pre-ANSI levels we may have accidentally exposed ourselves to before the complete understanding of this RF exposure was known.

While various "mini" studies may have been conducted over the years on RF

I'd like to see an organization perform a more intensive, complete study on RF exposure to determine which cancers in our colleagues can be attributed to it.

exposure to broadcast engineers and cancer, I'd like to see some reputable organization perform a more intensive and complete study on the subject to determine how many cancers in our colleagues can be directly attributed to work exposure.

A word to the wise is in order here: Follow the ANSI guidelines explicitly and always limit your RF exposure when working on or around equipment, especially with any safety shield removed or protective doors opened. Not only is it the law, it is likely a life-saving practice.

Face it: We are getting conflicting reports on the hazards of cell phone usage at those extremely low-power levels compared to what we work with every day. What are the potential effects of the 50 kW exposure at your AM station while standing in the vicinity of the phasor cabinet that is not completely RF shielded?

*John Arndt
Philadelphia*

Radio World
The Newspaper for Radio Managers and Engineers

Our readers have something to say

"For 20 years I've enjoyed RW for the many articles on engineering, rules & regs, the 'From the Editor' column and the Equipment Exchange. I would simply be lost without it."

Dale A. Ganske, President
Hawkeye Radio
Middleton, Wis.

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◆ READER'S FORUM ◆

**Helpful Hints
For HD**

Thanks for the op-ed piece "Digital Delight or Digital Doom" (Sept. 26).

I very much want HD Radio to succeed because it will afford my industry of reading services on FM subcarriers a means to provide good-sounding audio to a deserving and increasing audience of visually impaired or print-disabled populations nationwide.

People who live with vision loss, blindness or disabilities that prevent read-

occasional promo and make a real effort out of it. I'm of average intelligence so there has to be a promotions director in my market somewhere who is at least as creative as I am and can think up these kinds of things, so why haven't I heard about an HD Radio giveaway at your remote events? Then you could tell me who won the radio during your morning show.

How about on your station's Web site? You tell me to go to your Web site often enough, but where's the program listing/schedule for your HD channel?

Reading services on subcarriers have

failing at selling the HD Radio concept to the consumer. It has been stated that people are "aware" of HD Radio, but don't know what it is. It's too complicated of concept to be explained in a 30-second radio spot. We need promotional articles to be appearing in newspapers, magazines, Internet sites and other non-radio media. Stations need to be doing remote broadcasts from stores carrying HD receivers.

It seems clear that we are not very good at cross-promoting with other media or with the retailers, but this is how the battle for the "hearts and minds" of the consumers will be won.

*John Schneider
Quincy, Ill.*

deliver a very good signal.

It may seem old-fashioned, but I still sign off at midnight, both our AM and FM stations. We are proud to be the *only* live broadcasters in the Lawrenceville, Ill., and Vincennes, Ind., areas. When we broadcast, there is a heartbeat at the facility. Yes, we still use carts and cart machines. Old fashioned, yes, but it works well here.

IBOC: Not needed in many smaller markets. Service: Always needed.

*Kent Lankford
Lawrenceville, Ill.*

People who live with vision loss, blindness or disabilities that prevent reading would love to hear their daily newspaper read over a clear, crisp station and not on a scratchy, multi-path-prone signal on a SCA unit.

— David Noble

ing would love to hear their daily newspaper read over a clear, crisp station and not on a scratchy, multi-path prone signal on a SCA unit.

I have a major gripe with my favorite Phoenix market stations for doing exactly what Holland Cooke said; namely, that the stations run occasional and vague spots about "other things" I might hear if I dropped the bucks for an HD Radio.

If I didn't work in radio, I am not sure I'd even pay attention to those spots. As a radio listener, here are a few hints for stations wishing to promote their HD channels:

Tell me what programs you have on your HD channel. Be specific. It isn't about the audio quality as much as it is about the content. Is it an exclusive recorded interview with a recording artist coming to town for a concert? Is it a commercial-free (pledge-free) channel? Will I hear something on your HD channel that I won't get on your analog station? Is it an uninterrupted CD?

Throw some real inventory into the on-air promotion, stop depending on the

to wait until the station carrying them converts to digital. Reading services on SAP channels are looking for HD partners in their markets. When Sun Sounds of Arizona gets to program its very own digital feed, we're going to do everything we can to reach 50,000 Arizonans with a high-quality sound, but we're also going to tell them what they can hear, when it's on and yep, we're going to do it far more often than my favorite morning drive time station tells me about this thing called HD Radio.

Come on guys, put your shoulder into it and push!

*David Noble
Development Director
Sun Sounds of Arizona
Tempe, Ariz.*

Paul, your editorial asked, "What do you think?" about the present state of HD Radio. Here are my thoughts.

I am tired of all the negativism being printed, blogged and spoken about HD. No, it's not a perfect technology; it has some problems, especially on the AM band. But do we have any better options? The radio industry is slowly fading to black and this is our best hope for survival.

Most of the negativism is coming from radio people. These naysayers from within our own industry would probably complain about the quality of the lifeboats on a sinking ship.

In 1983, I watched our industry torpedo the FCC's decision for a single AM stereo standard. So many people complained about the choice that the FCC backed down and gave us the "market-place" standard. From that moment, AM stereo was doomed to failure.

I can see the same thing happening to HD Radio. If we don't all get behind it as our best chance for survival, the train will leave the station and we will all be looking for a new line of work.

That said, I think it's clear that we are

Apocalypse Now

You requested feedback as to what people are hearing at night on the AM band now that IBOC is operational at night ("AM Nighttime IBOC: Apocalypse or No?," Oct. 10).

I live near Grand Haven, Mich. Here's what I am noting:

The clear channels are definitely being affected. WABC 770 is obliterated by the IBOC of WBBM 780 and WJR 760, for example. Likewise, WSB 750, formerly quite listenable here, is hard to hear thanks to WJR's IBOC. The IBOC sidebands of WHAS 840 wipe out WGVS 850 Muskegon, formerly listenable at my house.

IBOC from someone on 1130 (WDFN or WISN, or both) makes KMOX 1120 hard to hear about 50 percent of the time. Before, KMOX was one of the stronger clear channels at night here.

Maybe WOR has only received "one complaint," but believe me, the effect on the AM band is horrendous in places and will grow worse when more stations add IBOC.

DXing, as a hobby, will be dead, and long-distance listening to the clear channels will become more rare too. It's already happening!

*Phil Boersma
Spring Lake, Mich.*

**Service Always
Needed**

As a small-market owner of a combo AM-FM, my feelings on this IBOC situation are varied somewhat (Radio World's *The Leslie Report*, Sept. 20).

In the small-market radio world, the IBOC situation is not that big a deal. Service to listeners continues to be the main focus along with service to our local and agency advertisers.

As a matter of fact, broadcasters such as us that have a local AM-FM combo with transmitters located with our studios might consider the HD FM. Just simply place your AM programming on the FM HD band. If you/we can afford the equipment and engineering.

Located on the AM band at 910, we must power down at night to only 59 watts. However, on our frequency we still

**Hear It Now:
IBOC Disappoints**

I made a series of short recordings at my cottage at Klinger Lake near White Pigeon, Mich., on the evening of Sept. 19, 2007.

We are roughly 130 miles from these transmitters (WSM, WBBM, WGN, WSCR, WHAS, WJR and WLW). Normally in this area, we can receive all of the Chicago 50 kW stations with a good listenable signal, day or night.

The recordings were made using a Zoom H4 recorder and a GE Superadio III. I made the recordings acoustically because I did this on the spur of the moment, and that also allowed me to say a few words to identify the stations. I have a series of about 12 recordings of a number of stations, including two additional files of WGN and WBBM.

What I found was that in the evening, the IBOC noise sidebands from adjacent-channel stations over on the East Coast were so strong that at times, they completely wiped out the 50 kW Chicago stations that can normally be heard very well in my area. In other cases, the noise was just really annoying.

I listened on other evenings the past week, and the results were the same. What you hear on the recordings is typical of reception in this area. In some cases, it's even worse — the adjacent-channel interference completely obliterates the desired station only about 130 miles from the city.

IBOC is a failed technology that has no place on the AM dial. It is a huge disaster. If this is the future of AM radio, I will not be listening. There are too many other, better alternatives now!

By the way, WGN sounds bad even in Chicago during the daytime. There is always a hiss in the background. I haven't measured it, but I'll bet it's not even 30 dB down.

*Edgar Reihl
Northbrook, Ill.*

Visit rwnline.com to hear some of Reihl's recordings.

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Correction

The link for Radio Design Labs provided in the user report on page 34 of the Nov. 21 issue is incorrect. It should be: www.rdlnet.com.

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AM IBOC in Distress?

Proponents Need to Take the Concerns of Smaller AM Stations Seriously

Some people predicted an "IBOCalyse" when AM HD operations went full-time on Sept. 14. The band would drown in a sea of digital hash, digital doomsdayers warned.

It didn't happen, at least not yet. But there is plenty to worry about on the AM IBOC front.

First, let's all agree that not enough stations have been transmitting HD Radio at night to provide a realistic evaluation of the consequences. That argues for calm, although the low activation rate is itself also a measure of the problem; if the system met the needs of AM broadcasters they should be jumping on it.

Citadel Director of Corporate Engineering Martin Stabbert embodied questions about the efficacy of full-time AM HD when he ordered all his AMs that had converted to cease transmitting HD at night, using language that must have given Ibiqity officials heartburn. Separately and for different immediate reasons, Cox, in a "let's wait and see" move, has tried HD on most of its AM stations but is taking it off the air day and night, once tested at each facility.

So critics are ready to pounce, citing "early proof" that AM HD is in trouble.

It's not like no one saw this coming. The genesis of a rocky rollout for AM HD is grounded in the original imperative Project Acorn faced more than 15 years ago. Large group owners forced NAB's hand to forget about Eureka-147 and urged development of an in-band solution as the only acceptable digital format for U.S. broadcasters.

But it had to include both the FM and the AM services. Ignoring the senior band in the pursuit of a digital transition was unacceptable (an argument in which we concur).

Yet the AM band already was compromised with overcrowded and overlapping channel allocations. Add the insult of sky-wave interference and even a non-technical observer understands that the laws of physics stacked the deck in this challenge.

Credit the genius of engineers who have made AM IBOC work at all; but they sculpted a model out of a deeply flawed piece of spectrum. To achieve their ambitious goal, secondary coverage would have to be sacrificed.

Ibiqity and other advocates also may have underestimated the importance stations would give to maintaining their existing analog service areas. Certainly, few proponents seem to have taken seriously the vocal concerns of smaller AM stations that have been bubbling about for a long while. It's not "just hobbyists and DXers" who have concerns, contrary to what some proponents say under their breath.

When a smaller-market station feels betrayed by the NAB and FCC, that's a bad situation — and clearly, some do. Put yourself in a small AM manager's shoes. Beyond the substantial investment required to add HD, one the station may not be able to afford, he or she perceives that the newly adopted standard could dramatically decrease their effective nighttime interference-free service area and cause the loss of valuable daytime fringe-area coverage.

Even a number of major-market stations that have deployed

AM HD are feeling the pinch of reduced coverage at night. Those with strong adjacent-channel neighbors have had their nighttime service area coverage shrink substantially.

Owners like Clear Channel and CBS reportedly are having to choose which AM HD stations to leave on at night and which ones they'll turn off due to interference inflicted on more important co-owned stations.

Don't expect the FCC to come to the rescue. The commission seems content to let the marketplace decide this one. It will step in only to rule on interference cases where the adversaries cannot resolve the issue bilaterally, though we'd prefer to see it take a more active role in facilitating solutions.

Some observers think the only way the situation will resolve itself is if the FCC is forced to decide the interference issues are serious enough to warrant rescinding all nighttime AM HD authority, or if the NAB and major group owners pressure Ibiqity to forge a modified digital modulation scheme that is more scalable and flexible — above all, one that produces less adjacent-channel interference.

Whether DRM or some new technology breakthrough would allow this, only time will tell. Unfortunately, if FM HD eventually does take hold and millions of HD Radios with the current AM HD standard are sold, the chances of that diminish; so the window of opportunity to fix this would be relatively short.

Others feel there is no window for change at all. Unless the "fix" is something that can be handled dynamically in code, receiver manufacturers aren't going to back up and start over with a new or significantly modified platform for AM. Could OEMs abandon AM altogether instead?

We remain cautious supporters of IBOC and HD Radio. We believe it is an imperfect system that nevertheless has offered the radio industry what it asked for through its national management and engineering representatives: a way to transition voluntarily at a chosen pace to a digital future without giving up valuable spectrum.

But we hope Ibiqity and its partners don't pooh-poo this AM problem or let it become a marketing nightmare at a time when digital radio needs good headlines, not bad. Things could get ugly.

Ibiqity has been relatively quiet in public about the situation. What we need right now is a vocal response from the company saying "We recognize AM at night is an important issue to the U.S. radio industry, and we want to work with all broadcasters on a satisfactory solution." We also need the engineers of stations involved in interference disputes to talk to each other and to consider this an industry challenge, one that is best solved through cooperation.

There aren't any easy answers here. We hope and trust that Ibiqity's technical experts and top management are working closely with their radio engineering customers to help forge a solution.

—RW

◆ READER'S FORUM ◆

SoundExchange Solution 'Misleading'

Your headline "Small Webcasters Reach Royalty Détente With SoundExchange" (*RW Online*, Sept. 21) is very misleading.

A handful of very small Webcasters took the offer from SoundExchange. Under this offer, they can only play music from SoundExchange member labels and artists, a small fraction of the artists played on Internet radio.

One of the stations that accepted the agreement was www.christmasmusic247.com. It's been off the air since the royalties were announced in March, and is now returning. The owner describes it as a small business/hobby. But they're much smaller than most of the professional independent commercial Web-

casters like DI.FM/Sky.FM, 977.com, I.FM, SomaFM.com, GorRadio.com and AccuRadio.com.

caps of \$1.25 million a year are much smaller than the SBA definitions of a small broadcasting business, and create a

None of them ... have come to any agreement; nor is the 'Détente' agreement to which you referred even beneficial to them.

None of them, nor anyone from the Small Commercial Webcasters alliance, have come to any agreement; nor is the "Détente" agreement to which you referred even beneficial to them.

The listener caps alone are problematic: any station with more than 5 million tuning hours a month, which is equal to approximately 8,000 AQH persons, which eliminates about half the largest independent Webcasters. The revenue

barrier to business growth.

So it's not a solution. The Webcasting problem continues. And don't forget the RIAA-dominated board of SoundExchange is pushing for high Webcast rates so it can justify high performance royalties for terrestrial radio.

Rusty Hodge
General Manager
SomaFM.com
San Francisco

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